

The Islamic University–Gaza  
Research and Postgraduate Affairs  
Faculty of Commerce  
Master Business Administration



الجامعة الإسلامية - غزة  
شئون البحث العلمي والدراسات العليا  
كلية التجارة  
ماجستير إدارة الأعمال

**"The Impact of Leadership on Stressful,  
Complex Rescue Operations in EMS  
Department in PRCs During The Last Three  
Wars"**

أثر القيادة تحت الضغط وخلال عمليات الانقاذ المعقدة في  
أقسام الخدمات الطبية الطارئة في جمعية الهلال الأحمر  
الفلسطيني خلال الحروب الثلاث الأخيرة

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**A thesis submitted in partial fulfillment of the requirements for the degree of  
Master of Business Administration**

**August/ 2016**

## إقرار

أنا الموقع أدناه مقدم الرسالة التي تحمل العنوان:

### **"The Impact of Leadership on Stressful, Complex Rescue Operations in EMS Department in PRCS During The Last Three Wars"**

أثر القيادة تحت الضغط وخلال عمليات الانقاذ المعقدة في أقسام الخدمات الطبية

الطارئة في جمعية الهلال الأحمر الفلسطيني خلال الحروب الثلاث الأخيرة

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## نتيجة الحكم على الأطروحة

## **Abstract**

This study aimed to show the ability of leadership to deal with stressful complex rescue operations in emergency medical services departments in PRCS on four main dimensions (stress, teamwork, leaders experience and decision making) using the descriptive analytical method to study the impact of leadership. The study was applied in emergency medical service department in PRCS during the last three wars.

The questionnaire used as a data collection tool. The study population was (122) who are all working in EMS department in PRCS in different posts. (122) questionnaires were distributed and (116) were retrieved and analyzed by the SPSS program for statistical analysis. Results demonstrate significant effect of ability of leadership in stressful, complex rescue operations on stress, teamwork, leaders experience and decision making.

The research recommended that a regular and professional training for EMS employees to deal with stressful rescue operations and to enhance their leadership skills, conduct special programs for EMS employees to dissipate work stress and creating good and compatible teams to insure achieving the goals of rescue operations during wars. Also the research recommended that creating a practical hierarchy and hiring good assistants to insure good results.

## المخلص

هدفت الدراسة لإظهار قدرة القيادة على التعامل مع عمليات الانقاذ المعقدة والتي تكون تحت الضغط في قسم الطوارئ في جمعية الهلال الاحمر الفلسطيني من خلال اربعة محاور (ضغط العمل، العمل ضمن فريق، خبرة القائد، واتخاذ القرارات) باستخدام المنهج الوصفي التحليلي لدراسة تأثير القيادة. وقد تم تطبيق هذه الدراسة في مراكز الاسعاف الخمسة الرئيسية في جمعية الهلال الاحمر الفلسطيني خلال الحروب الثلاثة الاخيرة. وقد استخدمت الاستبانة كطريقة لجمع البيانات حيث ان عدد افراد المجتمع (122) فرد وقد تم توزيع الاستبانة على نسبته 90 % من مجتمع الدراسة. وقد تم استرداد (116) استبانة وتم تحليلهم باستخدام برنامج التحليل الإحصائي.

أظهرت نتائج تحليل الاستبانة وجود تأثير للقيادة تحت الضغط وخلال عمليات الانقاذ المعقدة على الضغط النفسي، العمل ضمن فريق، خبرة القائد و اتخاذ القرارات.

وأوصت الدراسة بانه يجب ان يكون هناك تدريبات متخصصة وبشكل دوري للعاملين في اقسام الاسعاف في الهلال الاحمر الفلسطيني وعمل برامج مخصصة لهم من اجل التخلص من ضغط العمل وايضا تشكيل فرق مهينة ومنسجمة مع بعضها البعض للحالات الطارئة .

وأوصت الدراسة ايضا بان يكون هناك هرمية عملية وتوافر مساعدين اكفاء وبالتالي الحصول على النتائج المرجوة وتحقيق الاهداف.

بِسْمِ اللّٰهِ الرَّحْمٰنِ الرَّحِیْمِ

﴿يَرْفَعُ اللّٰهُ الَّذِیْنَ اٰمَنُوْا مِنْكُمْ وَالَّذِیْنَ

اٰتَوْا الْعِلْمَ دَرَجٰتٍ﴾

صدق لله العظيم

[المجادلة: 11]

## **Dedication**

I would like to dedicate this research to the spirit of my father, whom I wished he could be with us, may Allah bless his soul; to my mother, whom I wish a healthy life.

I would also dedicate this study to my wife, who had supported me on this long journey; and to my child Qussay as well.

To my wonderful, supportive family, brothers and sisters.

To the soaring educational institution, Islamic University –Gaza, that pursues admirable quality and ethical knowledge.

Wishing this research would help us all to achieve a more productive, inspiring and innovative work environment towards excellence.

## **Acknowledgement**

First of all the gratitude goes for Allah, who gave me the courage and patient to complete my Master degree.

I deeply indebted to my Supervisor Prof. Yousif Ashour, who had lent a hand from my early steps of research, through invaluable comments and feedback. I deem myself fortune to have his professional skills; his swift conception capability was very impressive.

My thanks must go also to Dr. Wafeq Al Agha and Dr. Fares Abo moammar for accepting to discuss this research.

I'd like to present appreciation to all my professors in the Commerce Department at the IUG.

I must also acknowledge the support and help of all my friends and colleagues, especially hosam bakker, who used to encourage me all the time and his encouragement are highly appreciated and to all my friends in ICRC.



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## **ACRONYMS**

<b>PRCS</b>	<b>Palestinian Red Crescent Society.</b>
<b>EMS</b>	<b>Emergency Medical services.</b>
<b>OPT</b>	<b>Occupied Palestinian Territory.</b>
<b>ITLS</b>	<b>International Trauma Life Support.</b>
<b>USA</b>	<b>United States of America.</b>
<b>IUG</b>	<b>Islamic University of Gaza.</b>
<b>UN</b>	<b>United Nation.</b>
<b>EU</b>	<b>European United.</b>
<b>NATO</b>	<b>North Atlantic Treaty Organization.</b>
<b>ICRC</b>	<b>International Committee of the Red Cross</b>



# **Chapter one**

## **Study Background**

# Chapter one

## Study Background

### 1.1 Background:

Gaza is one of the most suffered areas in the world from wars, from 2008 till 2014 three wars were took place in Gaza which cause a severe damage on different aspects of life like houses, mosques, infrastructure, fatalities and wounded people.

In the future, greater demands will be placed on the management of emergency response than has previously been the case. One contributing factor is that society as a socio-technical system has become more complex and diverse, with various activities that interact with one another and that are dependent on one another. A second contributing factor is the perception of societal safety issues, which have changed radically since the end of the Cold War. A third is the necessity for various authorities and organizations to cooperate more during emergency response than has previously been the case. A fourth is an increase in activity on an international level (Fredholm and Göransson, 2010).

In recent years, disasters have happened several times all over the world, such as mine fire, gas leak, armed conflicts and so on. The rescue work is much important during disaster time, but it is more difficult to find out a best leadership approach which can minimize the risk of this rescue operation.

Larsson et al (2005) showed that the type of leadership has an impact on rescue operations, for that he developed a theoretical understanding of how indirect leadership is done in a military context. Further it has been done more research about indirect leadership during a stressful situation.

Sjöberg, Wallenius and Larsson (2006) pointed on their research that leader experience and appraisal is playing a major rule in rescue operation and they notice that

Lack of proactive decisions due to information overload will affect the reaction to events during the most stressful parts of the operation.

In the last conflict in Gaza (2014 conflict), a huge rescue operations took place according to the massive destruction, fatalities and injured people. The statistics shows that 2143 Palestinian fatalities, 11100 Palestinian wounded, 29 hospitals and medical centers destroyed fully and partially, 16003 civilian building were targeted (2358 fully destroyed, 13644 partially destroyed), 70 mosques with total destruction, 200 with partial destruction, and 1000 factory were targeted and total displaced civilians are 475000 habitants divided in two groups: 310000 displaced according to Israeli threats and 165000 according to home destruction (<http://www.alwatanvoice.com>).

Gaza strip is one of the most affected places in the world, and facing a lot of emergency and disaster situations since years ago which includes economic, political, social crisis and military conflicts. On the other hand, the siege which imposed on Gaza strip considered as a continues complex operation since 2007, which affect the performance of leaders and leadership at all the organizations working in Gaza strip specially ambulance and civil defense services by different degrees.

A similar research was conducted by Misa Sjoberg, Claes Wallenius and Gerry Larsson (2011) from Department of Leadership and Management, Swedish National Defense College, Karlstad, Sweden; they divided the nature of work into two groups, Everyday conditions and during an operation, and they take a different scale for each group.

## **1.2 Research Problem:**

During his tenure with ICRC witch is a humanitarian organization and on a partnership with PRCS on this field, and from the literature review, the researcher realized the impact of leadership behavior, among other factors have on staff's ability to deal with stressful and complex rescue operations. Therefore, the research main problem could be formulated in the following main question:

**Are the EMS departments in Gaza strip having the ability to deal with stressful, complex rescue operation in Gaza during the last three wars?**

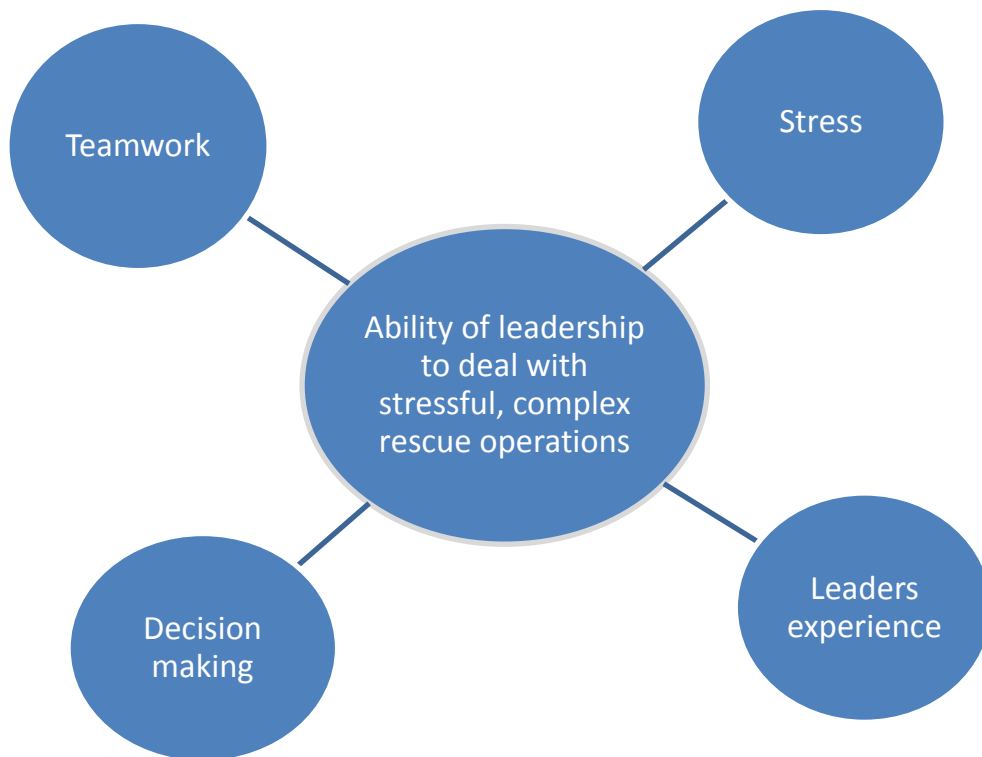
**1.3 Research variables:**

**1.3.1 Dependent variable:**

Ability of leadership in EMS departments in Gaza strip to deal with stressful, complex rescue operations.

**1.3.1 Independent variables:**

- a. Stress.
- b. Teamwork.
- c. Leader's experience.
- d. Decision making.



**Figure (1.1): Independent variables (Source: Conceptualized by researcher)**

#### **1.4 Research Hypotheses:**

Regarding the factors affecting leadership in stressful, complex rescue operations at EMS departments, the researcher assuming several hypotheses will be based upon the study:

- a. There is a statistically significant effect at ( $\alpha \leq 0.05$ ) of stress on dealing with rescue operations.
- b. There is a statistically significant effect at ( $\alpha \leq 0.05$ ) of teamwork on dealing with rescue operations.
- c. There is a statistically significant effect at ( $\alpha \leq 0.05$ ) of leader's experience on dealing with rescue operations.
- d. There is a statistically significant effect at ( $\alpha \leq 0.05$ ) of Decision making on dealing with rescue operations.

#### **1.5 Research Objectives:**

The objective of studying this topic is to highlight the ability of leadership to deal with complex and stressful rescue operations in EMS department in PRCS and access to the following objectives:

- a. To examine the impact of stress on leadership in rescue operations
- b. To examine the impact of teamwork on leadership in rescue operations
- c. To examine the impact of leaders experience on leadership in rescue operations
- d. To examine the impact of decision making on leadership in rescue operations.

#### **1.6 Research importance:**

The importance of this study stems through the following:

- a) The importance of this research lies in the fact that it is dealing with an important phenomenon, where the contribution of this study is an attempt to avoid or cope with the leadership problem in dealing with stressful rescue

operations, which supports the performance of leaders, leads to enhance their abilities and enable them in improving their strategies and plans.

- b) It's aimed from this research to improve the behavior of leaders and leadership in order to minimize and mitigate the risk which could cause from critical decisions, leaders behavior and other aspects of leadership.
- c) It is hoped that this research will benefit leaders and workers at medical services drew their attention to the importance of leadership in rescue operations so that they can improve it.
- d) This research could serve as a background for future research attempt in the topic of leadership in rescue operations.

**Chapter 2**

**Review of Related**

**Literature and Previous**

**Studies**

## **Section one**

### **Leadership Concept**

#### **2.1.1 Leadership Definition and History**

This chapter examines the theoretical basis of leadership, and provides an overview of the main definitions, situations and effects of the leadership in stressful, complex rescue operations. This chapter deals with topics including a framework to research leadership, leadership; meaning and history, prior research on leadership in stressful rescue operations. Research approaches to leadership, and previous studies.

Machiavelli has been originated the discussion of leadership as a process in the sixteenth century (Smith, et al, 1989). However, a more systematic analysis of leadership, add Smith et al, may have only been advanced by Max Weber in early last century. For Weber (1946) leadership rested in three possible sources ('ideal-types') of authority: charismatic authority, reflected personal characteristics; traditional authority, referred to compliance with norms and forms of conduct; and legal authority, which resulted from functional 'duty of office'.

The study of leadership began in the twentieth century was initially concerned with leader effectiveness (Yukl, 2002). Researchers define leadership according to individual perspectives; Stodgill (1974) concluded that there are almost as many definitions of leadership as there are persons who have attempted to define the concept. (Lok, 2001). Table (2.1) shows some representative definitions.



**Table (2.1): Leadership Definition**

<b>No.</b>	<b>Leadership Definition</b>
<b>1.</b>	Leadership is “the influence increment over and above mechanical compliance with the routine directives of the organization” (Katz & Kahn, 1978, p. 528).
<b>2.</b>	Leadership is exercised when persons mobilize institutional, political, psychological, and other resources so as to arouse, engage, and satisfy the motives of followers (Burns, 1978, p. 18).
<b>3.</b>	Leadership is the process of giving purpose (meaningful direction) to collective effort, and causing willing effort to be expended to achieve purpose” (Jacobs & Jaques, 1990, p. 281).
<b>4.</b>	Leadership is the process of influencing others to achieve organizational goals (Bartol & Martin, 1998, p. 415).
<b>5.</b>	Leadership is the ability of an individual to influence, motivate, and enable others to contribute toward the effectiveness and success of the organization (House et al, 1999: p.184).
<b>6.</b>	Leadership is a special case of interpersonal influence that gets an individual or group to do what the leader or manager wants to be done (Schermerhorn, 2000, p287).
<b>7.</b>	Leadership can be defined as the nature of the influencing process – and its resultant outcomes – that occurs between a leader and followers and how this influencing process is explained by the leader’s dispositional characteristics, and behaviours, follower perceptions and attributions of the leader, and the context in which the influencing process occurs (Antonakis, et al 2004, p.5).
<b>8.</b>	Leadership is a dynamic process, where leaders mobilize others to get extraordinary things done. To do so, leaders engage five practices: model the way, inspire a shared vision, challenge the process, enable others to act, and encourage the heart (Kouzes and Posner, 2007, p.14).

Definitions of leadership (Saqr, 2009)

## **Section Two**

### **Back ground of Leadership Theories**

#### **2.2.1 Introduction:**

There are too many trends to leadership, these trends are represented by the following schools: trait school, focused on leaders' dispositions; behavioral school, concerned with leaders' behaviors; contingency school, focused on leadership contingencies; relational school, considered leader-follower relations; sceptics school, questioned the existence and need of leadership; information-processing school, focused on cognition; and the neo-charismatic or transformational school which, in contrast with all previous schools, is not concerned in transactions but in transformations, in specific, with transforming the interests of the followers from being self-centred to being group-centered (Antonakis et al., 2004, pp. 6-11).

#### **2.2.2 Trait Theory:**

(Hughes, 2005, p. 25) shows that trait approach emphasizes attributes of leaders such as personality, motives, values and skills. By identifying specific traits or characteristics of leaders, one could distinguish a leader from a follower; He also shows that traits reported as being crucial to effective leadership in one study were not validated in others.

(Yukle, 2002, p.12) realized that there is no trait would guarantee leadership success; and the attributes are related to leadership behavior and effectiveness.

#### **2.2.3 Behavioral Theories:**

Behavioral leadership proposed that behavior of the leader impacted work and follower effectiveness. This era of research focused on leadership behavior as a mean of identifying the best way to lead. Under this approach, many studies were carried out to support this theory, majorly (saqer, 2009).

A democratic leader delegates authority to others, encourages participation, relies on subordinates' knowledge for completion of tasks, and depends on subordinate respect for influence" (Daft, 1999, p. 69).

## **2.2.4 Contingency theories**

The main concept of Contingency theories is to predict which types of leadership style will be most effective in different types of situations (Holda, 1995). Contingency approaches hypothesize that there are no universally acceptable styles of leadership. A particular leadership style may prove valid in one situation, yet ineffective in another (saqer, 2009).

Many studies have attempted to isolate critical situational factors that affect leadership effectiveness including the degree of structure in the task being performed, the quality of leader-member relations, the leader's position power, subordinates' role clarity, group norms, information availability, subordinate acceptance of leaders' decisions, and subordinate maturity (Howell, Dorfman, and Kerr, 2006, pp. 88-102).

The models of contingency theory discussed include Fiedler's Contingency Model, House and Mitchell's path-goal theory, Hersey and Blanchard's Situational Leadership theory, and Vroom and Yetton's contingency model.

### **2.2.4.1 Fiedler's Contingency Model:**

Fred Fielder proposes that effective group performance depends on the proper match between the leader's style of interacting with his/her subordinates and the degree to which the situation gives control and influence to the leader. (Robbins, 1997, p. 421).

Fiedler developed a personality measure, the least preferred co-worker (LPC) scale, as a measure of leader personality. The measure is based upon a series of semantic differential ratings of a person with whom one has worked in the past and is completed by the leader not by the subordinate (Lawerance, 2000, p.20). The underlying premise is

that a leader's description of the person with whom he/she has worked experienced the greatest difficulty working is reflective of a basic leadership style. Fiedler's second -26- premise is that the leader's personality orientation or behavioral style influences group performance and varies according to "situation favorability". Robbins (1997) summarized these situations:

- a. Leader-member relations: The degree of confidence, trust, and respect subordinates have in their leader;
- b. Task structure: The degree to which the job assignments structured / unstructured); and
- c. Position power: the degree of influence a leader has over power variables such as hiring, firing, discipline, promotions, and salary increases.

#### **2.2.4.2 Fiedler's Model Limitations:**

The weakness of Fiedler's model is its failure to describe or directly analyze the processes by which a leader's motivational orientation affects group processes and outcomes (Chemers, 1997).

Hughes (2005) noted while the model does predict leadership effectiveness, it does not delineate the processes that produce effective leader performance.

Kennedy, et al (1987), further, suggested that additional variables are needed as contingency factors and that more reliable measure of leader's styles are needed.

#### **2.2.4.3 Vroom and Yetton (Leader-Participation Model):**

Vroom and Yetton (1973) focused their research on decision-making rather than styles of leadership (Holda, 1995). This model seeks to enhance the decision-making ability of the leader and the follower's acceptance of those decisions. It was complex decision tree incorporating seven contingencies whose relevance could be identified by making "Yes" or "No" choices (Robbins, 1997, p. 429).

Vroom and Yetton's model was normative; it provided a sequential set of rules that should be followed for determining the form and amount of participation desirable in decision making, as dictated by different types of situations (Robbins, 1997, p. 429).

The model presents three basic styles: (Bloisi, et al, 2007, pp. 665-666):

- a) **Autocratic:** where the leader unilaterally makes decisions
- b) **Consultative:** where the leader solicits member inputs before deciding.
- c) **Group:** where the leader collaborates with members to arrive at a joint decision.

Yukle (2002), explains the leader must evaluate each of these choices and select the appropriate approach for the current situation.

**Vroom & Yetton limitation:**

Yukle had seriously criticized this model, conceptually and its mechanism, (Yukle, 2002, pp. 91-96):

- a. The model fails to capture some differences among situations by requiring a definite yes-no answers to the situational questions.
- b. Decision processes are treated as a single, discrete episode that occurs at one point in time, but most important decisions are not made in this way. Decisions typically involve multiple meeting with a variety of different people at different times.
- c. The theory is not parsimonious. The distinction between autocratic, consultative, and joint decision procedures is more important than the distinction made among sub-varieties of each procedure.
- d. Leaders assumed to have the skills necessary to use each of the decisions procedures, and leader skill is not a factor in determining which procedure is most appropriate.

There are other models related to contingency theories, but the researcher selected the closest models to the research.

## **Section Three**

### **leadership and stress**

#### **2.3.1 Introduction**

The focus of this section is whether stress has a major impact on this effectiveness of leaders, because, if stress impairs leader performance, then we could be forgoing many of the benefits which “good leadership” can bring.

#### **2.3.2 Stress and Stressors Types**

From a collaboration of sources, occupational stress is defined as an event or sequence of events, non-physical in nature, perceived by the receiver as an attack resulting in a physical, mental, and or emotional fight or flight response. This internal offensive or defensive reaction for prolonged periods of time causes an eventual deterioration of physical, mental, and emotional health. Although there are a variety of stressors that will cause the eventual deterioration, the most commonly experienced are due to role uncertainty and organizational influences (Ferris 1996). Role uncertainty and organisational influences are stressors from the work environment.

Organisational influences also take two forms, centralisation of authority and formalization of operations. Centralisation of authority is the allocation of authority, whereas formalisation of operations is the degree of instructions and procedures within an organisation. An extreme of either factor can produce a highly stressful situation for employees (Robert et al. 2004).

If authority is lopsided toward upper management, employees have little influence over tasks. Employees lack control to exercise judgment as to the most effective or efficient means of performing their work. This lack of control can be highly stressful. However, an extreme lack of locus of authority can be just as stressful. Without a definite authority hierarchy, employees may have the latitude to perform a task. However, if a problem beyond their expertise arises, there is no clear authority to

approve or recommend appropriate action. Although a superior may not have a resolution to an unorthodox problem, he or she may have a clearer understanding of how not to proceed. “The uncertainty of how to perform is as debilitating as lacking the authority to perform” (Ferris 1996).

Extremes of formality also act as stressors. Extreme formality, the written authority, gives the employee a clear and specific process for starting and finishing a given task. However, it removes the opportunity for creativity and discretion. Extensive rules and procedures increase a project’s time requirements usually beyond the project deadline, which promotes a stress response. And though extreme informality does allow for creativity and individual discretion, it removes the guidelines for conducting a task. Employees lack a template of how to conduct the task, what form it should take, and what is the end user expecting. Similar to role uncertainty, the employee is unsure of what is expected and feels powerless to work effectively. To minimize the effect of these stressors, employees and managers must devise a healthy medium of authority allocation and procedural formality (Robert et al. 2004).

### **2.3.3 Leadership and Stress in Followers:**

Relatively little has been written about the effects which different leadership styles have on the stress levels of followers. Bass (1992) at least acknowledges the problem when he writes, “Leaders can cause stress among their followers, for instance by exciting a mob, which is already at fever pitch, to take hasty actions.” He goes on to say that Seltzer et al. (1989) found that intellectually stimulating leaders increased the perceived stress and “burn-out” among their subordinates. Misumi (1985) also found that production-oriented leaders generated physiological symptoms of stress. Bass claims that, in laboratory experiments, production-oriented leadership caused higher levels of anxiety and hostility.

Of course, transformational leadership and charismatic leadership theories (see Burns, 1978) focus on the effects which leaders have on the followers who are generally

more self-assured and perceive more meaning in their work. This would imply that these types of leadership reduce the stress levels of their followers, but the specific impact concerning stress has not been fully explored.

#### **2.3.4 Stress Prevention: Primary, Secondary, Tertiary:**

Stress prevention is “an organizational philosophy or set of principles that employs specific methods to promote individual and organizational health and prevent individual and organizational distress” (Seigrist 1996). Methods of prevention take three forms, primary, secondary, and tertiary. Primary prevention is the elimination or reduction of factors that promote distress. Although not exclusive, such methods are job design (redesign), participant management, and flexible work hours. Secondary methods involve moderating the stress response itself; relaxation training and physical exercise are examples. Tertiary prevention is the attempt to minimize or cope with excessive distress from inadequately controlled stressors and inadequately controlled or moderated stress responses. Inadequate intervention has resulted in a dysfunctional environment or dysfunctional employees. This level of distress can only be resolved through some type of crisis intervention. Research studies have determined the parameters of a job design, or redesign (Kleiner et al, 2004).

According to research (Hackman 2004), there are five principles of job redesign to consider before taking action, natural working units, combining tasks, starting and maintaining client relations, vertical loading, and open feedback channels. Natural working units are teams formed to conduct interrelated tasks and activities. These units will perform a given task from beginning to end, while reporting to management periodically. Similar to natural work units, combining tasks is the assignment of interrelated tasks to an individual, who will then report to a unit leader or management periodically. Starting and maintaining client relations is the continual communication with end users to get feedback about work quality or if any changes are required. Vertical loading is the increased responsibility and authority to an employee over decisions affecting the outcome of a given task. Employees are apportioned authority



equal to their demands and responsibilities to complete a task with a minimum of bottlenecks. Finally, open feedback channels is the improvement of communication channels vertically, with superiors and subordinates, and horizontally, with co-workers, to improve or maintain feedback of information. The crucial element is opening and maintaining lines of communication among key personnel to minimise uncertainty; this concept is further exemplified in participant management.

Participant management is the re-distribution of the decision making process to employees. It involves an open dialogue between managers and employees about management decisions. Although extremely effective toward reducing job turnovers, decreasing absenteeism, and increasing morale, managers must exercise discretion. Managers must be careful to empower only those employees willing to take the responsibility that comes with the authority. These employees must be willing to sacrifice the time required, take the initiative, and make potentially erroneous decisions on difficult management issues. To assist employees allocate time, managers may need to implement flexible work schedules (Hackman 2004).

Flexible work schedules, which allow employees discretion over work hours, must be implemented cautiously. Flexible work hours allow employees to co-ordinate their work and social schedules, which reduces the time pressures from both. However, managers must be careful to monitor the schedule of which employees are working at what time. Otherwise, managers may have a shortage or excess of personnel. Although it imposes additional work for managers, flexible work schedules improves morale, and decreases absenteeism and tardiness (Hackman 2004).

If primary prevention methods prove inadequate or do not apply, secondary prevention methods are an alternative. Secondary prevention usually takes two forms, physical exercise and relaxation training. Previous studies (Leonard 1994) have shown that moderate regular aerobic exercise moderates the body's physical stress reaction and reduces stress induced physical deterioration. Recent studies have shown that weight training, or muscle conditioning, is also effective toward improving physical endurance

toward stressful events. However, current studies have yet to determine which, aerobic activity or muscle conditioning, is more effective long term.

Relaxation training (Brunce and West 1997) is less effective than physical exercise, but less time consuming. Relaxation exercises, such as deep breathing, mental imagery of a relaxing environment, and self-induced hypnosis, improve the individual's immediate emotional disposition and allow a clear mental focus. Though relaxation training will moderate the immediate stress response, it will not support the body's long term endurance of a stressful event. Less effective than physical conditioning, relaxation training can be performed anywhere and requires a fraction of the time.

At the tertiary stage of prevention, primary and secondary methods have either been implemented inadequately or neglected. As a result, employees can no longer function adequately within the environment. To aid employees, managers may have to recommend employees to a crisis intervention program. Intervention programs, such as drug abuse treatment, take time, are often costly, and do not guarantee the employee will return to full productivity. For these reasons, a proper diagnosis and careful implementation of primary and secondary methods are crucial for the well being of managers and employees. (Kleiner et al, 2004).

## **Section four**

### **Leadership and Decision Making**

#### **2.4.1 Introduction:**

Tactics, command and leadership are closely associated with decision making. It can be a matter of making decisions regarding tasks, task execution or that someone has been given the authority to make certain decisions. Decision making is in turn associated with responsibility, i.e. taking responsibility for decisions. In a given situation, it is the legal system that allocates authorities to those in charge, while morally they take responsibility for their conduct.

Decision making situations are often characterised according to Orasanu, et al. (1992a) by the following:

- a. Problems and situations that the decision maker encounters are poorly structured.
- b. Information about the problem or the situation is incomplete, multifaceted and continually changing.
- c. Objectives are (or compelled by the situation's course of events) variable, poorly formulated or even contradictory.
- d. The decisions that are made affect several different problems or situations at the same time.
- e. There is a shortage of time.
- f. The risks are substantial, at times even life threatening.
- g. Many participants take part in the decision, either in preparatory measures or in the practical consequences of the decision.
- h. The decision maker must weigh the needs of personnel against those of the organization due to the fact that the assessments and objectives that decisions are based upon are not always in line with the preferences of personnel.

## **2.4.2 Schools of thought on decision making:**

Instead as in traditional research in human decision making, focusing on what one should do and how one should act based on rational norms, the focus has increasingly shifted towards analysing the context for decision making, the processes in the situations that are analysed, the expert knowledge and situation awareness of decision makers, controlling processes, cooperation, coordination and communication (Fredholm and Göransson, 2010).

The various schools of thought that currently exist for decision making can be categorized into models for decision making.

### **2.4.2.1 Classic decision making**

The traditional approach to human decision making, which forms the basis for the present classic models for decision making, has generally been derived from how people are believed to make individual decisions based on well-structured and static problems. It has often dealt with how single individuals, and then often novices, make decisions under laboratory-like conditions, where the decision situation has been isolated from disrupting external factors. Moreover, the test subjects in the studies that form the basis of the classic models have usually had ample time to resolve problems and the goals of decision making have been clearly expressed and stable in nature. The results from such studies have usually been compared with how one should have solved problems according to some form of rational standard, and the focus has most often been on the choice of possible actions. The study paradigms used are partly normative models and partly descriptive instructive models (Bell, Raiffa, & Tversky, 1988).

Normative models address how people solve problems and make decisions under ideal conditions. These models are based on the choices a rational person makes in a certain situation, and are largely prescriptive.

In normative models, strong emphasis is placed on the benefit a decision maker gains by making a certain decision. A decision that leads to the decision maker obtaining optimal benefit is usually considered as the best alternative and should be chosen. If there is uncertainty as to the results of a decision, the probabilities for different types of result must be calculated and the decision based on the anticipated benefits of the alternatives (Savage, 2002).

#### **2.4.2.2 Naturalistic decision making**

Naturalistic decision making addresses how people, and primarily experts, make decisions in a specific context. These decisions are often made based on unstructured problems with shifting and often vaguely defined goals. They often occur in uncertain, dynamic environments, and then generally under substantial pressure in regards to time, with much at stake and many different participants involved.

The focus of studies involving naturalistic decision making therefore tends to be more oriented to the decision makers' perception of the current situation, or in other words, their situation awareness, instead of the traditional focus on the choices between various possible actions (Orasanu & Connolly, 1993; Klein, 1997). Naturalistic decision making can be defined as the way in which experts – working individually or together in dynamic, uncertain and often rapidly changing environments identify and gain control of situations, make decisions and take measures having consequences that are meaningful for themselves and for the larger organisations in which they operate (Zsombok, 1997).

Naturalistic decision making therefore tends to be more based on how decision makers attempt to identify and gain control of a situation, often based on their experiences, so as to subsequently update their awareness of the course of events through feedback. This is in contrast to the classic models, where several possible solutions are developed that are later compared with one another.

The research in naturalistic decision making suggests that rational norms and formal models for decision making cannot be established, such as those developed in controlled laboratory testing. Instead, contextual factors must be included that exist in actual situations for decision making, and consideration taken to situations continually changing. The classic models are also believed to lack explanatory and predictive aspects. In actual environments, classic decision making can even be dangerous. This primarily applies to decision situations in which time is of the essence and there is stress (Zsombok, 2007).

Naturalistic models for decision making, however, do not represent a direct counter-reaction to the traditional method of viewing decision making. They have instead arisen from a need to study decision making under actual decisions in a context where the classic theories display weaknesses. Examples of this include questions concerning how teams of experts make decisions under actual conditions (Orasanu & Salas, 1993). A team differs from a group in that members of a team each possess a specific skill. The members' unique qualifications contribute to what the entire team achieves. The whole of a team is not a simple addition of skills, but is based instead on collaboration in which information is coordinated (Waern, 1998). The research here is of an interdisciplinary character because of its substantial complexity, which, for example, expresses itself in naturalistic decision making also embracing research in situation awareness, problem resolution, ecological psychology, situated cognition, etc. (Klein, 1997).

### **2.4.2.3 Dynamic decision making**

Another research orientation that also concerns decision making in applied contexts is the research in dynamic decision making. Characteristic for this type of decision making is that it occurs in dynamic environments, such as when trying to gain control over a widespread forest fire, where it is largely impossible to make optimal or rational decisions based on the way described by the classic models. This is because it is impossible to know in advance, the state of the problem space that is to be dealt with

(Artman, 1999). In this area, it is not the actual decision making that has been in focus, but rather the questions generated by decision making more regulating a process, such as preventing the spread of fire (Svenmarck & Brehmer, 1991). Decision making in such situations becomes more a function of various measures for gaining control (Brehmer, 1992).

Dynamic decision making also occurs as an ongoing process. The problems that have been defined by Edwards (1962), among others, as a series of decisions to achieve a goal where the decisions are dependent on one another, or in other words, that later decisions are based on previous decisions and affect them, and that the states for decision making are constantly changing, in part automatically and in part through the decision maker's actions. Metaphorically speaking, the dynamic environment changes as if it had a memory (Artman, 1999).

Rapoport (1975) has defined decision making in the same way, but also points out the important characteristic that the decisions are made in real-time. The decisions must not only be correct and made in the right order, but also made at the right time. The decision maker must deal with a system that is to be controlled by various means in real-time. Decision making therefore takes the form of regulating a process, and not individual events. Making decisions in dynamic environments means finding a way of using one process to control another (Brehmer & Allard, 1991). Decision making in real-time also means that the situation continually demands decisiveness on the part of the decision maker, something that generally leads to stress. Most often, the decision maker must consequently find a strategy that not only controls the task but also the work situation (Brehmer, 1990). The time aspect also means that each action must be defined according to one or more time scales (Fredholm, 1997). This applies regardless of if one is in immediate contact with, for example, a minor accident, or if one is on a staff that is coordinating actions during a larger emergency. This usually leads to the occurrence of various types of coordination problems between different command levels in an organization's command system, but also between the command systems of different organizations (Brehmer, 1990). Decision making involves continual action, either by

making decisions that can change a situation or by letting a situation change under its own power (Artman, 1999).

#### **2.4.2.4 Distributed decision making**

One can say that decision making is distributed because a dynamic environment is seldom controlled by a single decision maker but instead by a team, (Artman, 1999).

Such decision making differs from decision making in groups, where decision making revolves more around reaching a consensus among a number of persons.

Decision making in groups is characterized by the group member having a relatively concordant picture of the situation that is to be dealt with. The group members as individuals, however, do not possess all information but are instead dependent on the information being coordinated within the group. In distributed decision making, however, decision makers are only assumed to have access to a reduced intellectual model of the problem (Brehmer, 1991). For example, an expert in a specific field is not assumed to have sufficient knowledge to resolve more complex problems that are beyond his or her field of specialization. The problem in distributed decision making is therefore in coordinating reduced intellectual models of various participants so as to attain an overall picture, or situational awareness, of the situation. But this is not to say that individual participants will necessarily attain a complete overall picture of the problem. Because information must be coordinated between various participants, communications constitute a very important and unifying factor in distributed command of incidents. In that communications always requires resources, it is often deemed necessary to keep them to a minimum. A model for how communications function is the so-called blackboard metaphor (Hayes-Roth, 1985). According to this, a global memory functions like a blackboard, meaning that all participants that communicate with one another have access to the same information. This type of information presentation becomes very vulnerable if the global information is incorrect. Another presentation



method involves individual blackboards, with different participants having access to different blackboards. When the information is coordinated between different participants, it must be interpreted and understood by the recipients. This process occurs, for example, by participants placing counter questions, or strengthening or reformulating statements for the purpose of understanding and coordinating one another's further language actions. Understanding, or the intent, of that which is communicated is largely based on the participants having similar models of what is addressed in a communication. In these contexts, one usually says the participants need some form of common intellectual model for the speech act situation. This model is fundamental for the integrating participants being able to conduct joint actions and must it be based on a common foundation that to a large extent is associated with the discourse, or environment, in which the communication occurs (Clark, 1996). The discourse embraces our way of conversing and serves as a frame of reference that enables interpretation and a deeper understanding of that which is communicated. This frame of reference also embraces various types of resources that the participants have access to, such as background knowledge, knowledge of operations, social roles and identities, professions, etc., but also the use of objects such as books, manuals, maps, images, and computers.

Communicating information between a large numbers of participants therefore takes time and constitutes a risk in that the information communicated is not always interpreted or understood as the sender of the information originally intended (Clark, 1996).

Distributed decision making arises according to Artman (1999) in dynamic situations and environments that are characterized by high information loads. The information flow in many cases exceeds the cognitive ability of individuals to monitor, interpret and analyze an event themselves. The information can also require specific expertise to be interpreted. Operations can also be geographically dispersed, which in most cases makes it physically impossible for an individual to gain access to all available information. Parallel tasks can be required when situations are sufficiently

complicated that several participants and decision makers are needed to assist one another to make decisions.

The coordination that is necessary to handle distributed knowledge processes in real-time between participants in a system therefore constitutes one of the key problems for distributed decision making in dynamic environments (Artman, 1999; Svenmarck, 1998).

Svenmarck and Brehmer (1991) maintain that distributed decision making is becoming more common due to new technical systems, with ever-increasing levels of automation, leading to constantly growing risks for personal injury and material damage. New automation demands more monitoring, diagnosing and planning.

Increased automation leads to work becoming more cognitively demanding and places heavier demands on cooperation. External factors, such as economic considerations and other internal conditions, demand increasingly faster decision processes.

A distributed system should satisfy the need for communication, even if it can be costly in terms of the stress that usually accompanies real-time processes. Because there is always the risk in such a system that unanticipated events and situations can occur, communication is necessary for the system being able to recreate itself. There is therefore a substantial need to create communication-friendly organizations (Brehmer, 1991).

It is implicit in distributed decision making that decision makers must have time to reflect on their methods and make decisions in consultation with other decision makers. Effective distributed decision making is therefore considered to include a great degree of afterthought prior to decisions in comparison to individual decision making. Communications here constitute the basis for reflection by decision makers and requires time for assessment, in other words, changes must be given opportunities for

development. This can entail problems when introducing new members to teams (Brehmer, 1991).

In conclusion, however, it can be said that there are no direct conflicts between the various scientific models. The naturalistic, dynamic and distributed models are largely based on the classic models for decision making, but have come about as a reaction to the limitations in the classic model in explaining decision making in actual situations in more complex environments.

### **2.4.3 Stress and Decision Making:**

The immediate and long-term effects of acute stress can be positive or negative, and individuals may experience a mixture of both. Performance enhancing effects include alertness, faster reactions, increased energy and accelerated thinking skills. These are likely to improve an individual's ability to react to the occasion and to take decisions while under a degree of pressure. If the level of demand increases, or the individual has already started to experience a negative reaction, the effects resemble physiological and psychological symptoms of anxiety and fear, and a detrimental impact on performance and decision making will ensue. Typical problems, under these circumstances, include: "tunnel vision"; failure to priorities; "freezing"; and loss of concentration (Flin, 1996; Flinetal, 1997; Klein, 1996; Orasanu, 1997; Orasanu and Backer, 1996).

The impact of stress on decision making may depend on the type of decision process used. A range of thinking skills can be used to reach a decision. First, the decision making of those experienced in managing crises is characterized by intuitive or recognition primed decision making (Klein, 1997). This is where the individual recognizes the types of situation encountered and, from previous experience, knows what course of action is appropriate. Klein (1996) argued that the fast, intuitive decision style is less affected by stress than the more intellectually demanding analytical approach. He also has emphasized that properly trained and experienced commanders

actually show adaptive reactions to stressors. ``They include the selection of simpler and more robust decision strategies, narrowed and focused attention, use of heuristics, increased conservatism, and rapid closure on a course of action. To help decision makers avoid potential disruption due to stressors, it may be useful to train them to better manage time pressure, distracting levels of noise and high workload" (p.83). Secondly, there are situations where the person may have to spend more time thinking about the situation to remember the appropriate rule or procedure to use. A third style is the most mentally labor intensive, analytical decision making, where the individual must consider several possible courses of action and then select the best option. This is the style which should be used during operational planning phases.

During a disaster, these three basic styles may be used to varying degrees depending on the situation. Those operating at a strategic level should use the analytic style to accommodate the broader perspective required under these circumstances. In certain situations, emergency managers may need to switch their style of decision making. For example, during a volcanic crisis, between eruption episodes, optional response plans can be carefully evaluated and compared. In this case, analytical decision making should enable selection of the best option. However, if the volcanic crisis shifts into an eruption phase, rapid decisions will be have to be taken within minutes, making any new analytical decision making almost impossible and necessitating the use of a more intuitive or naturalistic decision style. Attention must be directed to understanding the naturalistic decision making of experts and how it can be modeled in simulations to develop this contingent capability in emergency managers (Flin, 1999).

## **Section Five**

### **Leadership and Leaders Experience**

#### **2.5.1 Introduction:**

Leaders experience is one of the most factors affecting leadership while dealing with stressful and complex rescue operations, for that it becomes one of the variables of this research.

#### **2.5.2 Leaders openness to experience:**

People who are open to experience can be described as creative, autonomous, unconventional, curious, flexible, and thoughtful (McCrae, 1994; McCrae & Costa, 1987). Having an open mindset might allow individuals to see more individual differences between other people (Homan, Greer, Jehn, & Koning, 2010) and treat them with less limitations and prejudice (Flynn, 2005). Therefore, partially extending Bono and Judge's (2004) arguments, we predict that leaders who score higher on openness will be concerned about their followers individually (i.e., show individualized consideration), and will thus be more liked and accepted as a role model (i.e., exhibit idealized influence). Furthermore, open and creative people are good at developing and articulating an attractive vision, because they are imaginative and creative (i.e., show inspirational motivation; John & Srivastava, 1999; McCrae & Costa, 1987).

Finally, we argue that openness to experience will be particularly associated with intellectual stimulation. Owing to their resourcefulness and flexibility (John & Srivastava, 1999; McCrae, 1994), people who score high in openness are likely to cope with organizational change, might see new approaches to problem solving, and might think outside the box, all of which are characteristics of intellectual stimulation. Furthermore, research on openness and creativity has supported the relationship between openness and intellectual stimulation. This research has shown that openness to experience is positively linked to divergent thinking and creativity

(e.g., George & Zhou, 2001; Schilpzand, Herold, & Shalley, 2011), which are facets of intellectual stimulation.

### **2.5.3 Personality and leader performance:**

Previous research has mostly focused on the link between followers' personality traits and their performance (Anderson & Viswesvaran, 1998), whereas only a few studies have investigated leaders' personality traits in relation to their performance (e.g., Judge, Bono, et al., 2002). In line with our previous argumentation that leaders' performance is highly relevant in organizations (Dirks & Ferrin, 2002; House & Aditya, 1997), we investigate the relationships between the Big 5 personality traits and leader performance. Previous work has generally suggested that extraversion, openness to experience, agreeableness, and conscientiousness are positively related to performance, whereas neuroticism is negatively related to performance (Barrick & Mount, 1991). People who score high on extraversion are characterized by high dominance and expressiveness, which, in turn, are important for leader performance (Barrick & Mount, 1991; Watson & Clark, 1997). Openness to experience is related to creative thinking, an important skill of effective leaders (Judge, Bono, et al., 2002). Conceptually, the link between agreeableness and leadership is ambiguous, because agreeable people are both empathic and likeable, but also likely to be compliant and passive (Judge, Bono, et al., 2002). Although a previous meta-analysis has shown agreeableness to be the least relevant predictor of leader effectiveness, the overall relationship was positive (Judge, Bono, et al., 2002), supporting Stogdill's (1974) conclusion that agreeableness is important for leader effectiveness. Highly conscientious people are well organized, behave responsibly, and are goal oriented; it is thus likely that they will perform well (Barrick et al., 2001). Finally, most meta-analyses have shown that neuroticism is negatively related to job performance in most jobs (e.g., Barrick et al., 2001), as many types of performance are likely to suffer when someone is anxious, sad, and insecure (e.g., Barrick et al., 2001; Judge & Bono, 2001).

## **Section six**

### **leadership and teamwork**

#### **2.6.1 Introduction:**

The concept that little explicit leadership is usually required during standardized routine work, but active and even directive leadership is important in unexpected, novel or stressful situations. Teamwork is the key factor to ensure a smooth leadership in stressful situations.

#### **2.6.2 General principles of leadership and co-ordination in teams**

The study of the interrelationships between humans, the tools they use, and the environments in which they live and work has been termed “non-technical skills” or “human factors” (Weinger 1998; Nestel 2011). With respect to teamwork, leadership and co-ordination within and between teams are important human factors. What exactly constitutes good teamwork varies to some degree with regard to team and task characteristics (e.g., task complexity, time pressure, standardization) (Tschan, 2011). However, research indicates that there are core competencies constituting good teamwork. For example, the “Big Five” model suggests that teamwork requires five competencies: team leadership, mutual performance monitoring, backup behavior, adaptability, and team orientation (Salas et. al 2005). These five competencies require the support of coordinating mechanisms such as shared mental models, closed-looped communication, and mutual trust (Salas et. al 2005). A more recent approach suggests that the growing number of more dynamic, ad-hoc teams and multiple team memberships requires “teaming”, that is the ability to quickly set the stage for working well in any team (Edmondson, 2012). Core teaming processes are speaking up, collaboration, experimentation, and reflection (Edmondson, 2012). Particularly, the importance of speaking up as a central teamwork competence is being more and more acknowledged (E. Morrison, 2014).

By speaking up, team members may contribute important information to the team as a whole and thus enable the team to learn from and prevent further mistakes (Edmondson, 2012; M. Kolbe et. al, 2012). Since speaking up requires the crossing of many personal and interpersonal hurdles (e.g., fear of repercussions) (D. Schwappach, 2014), it seems to require explicit invitation and appreciation - a certain form of leadership called leader inclusiveness (Nembhard and Edmondson, 2006). Both speaking up and leader inclusiveness are very explicit forms of co-ordination. Explicit and implicit co-ordination can be conceptually distinguished: Explicit co-ordination uses overt communication - for example, in novel situations. In contrast, implicit co-ordination by tacit agreement requires a common understanding of the situation, and is best used for the management of standardized routine tasks (J. Wacker et. al, 2009; M. Kolbe, 2013). Standardization as such can even substitute leadership in certain situations (J. Wacker et. al, 2009; B. Künzle et. al, 2010).

### **2.6.3 Successful Leadership and Teamwork**

Teams are an essential component of successful organizations today, and building and motivating teams are necessary pursuits to attain that success. Teams require continuous nurturing and interaction to maintain high performance throughout their temporary lives. Leadership must now concentrate on motivating and supporting teams using tools that were not previously considered, but have become crucial in a globalizing environment. In order for a team to be attuned to success, a combination of attributes is required that include: clear objectives; shared leadership; clear roles and responsibilities; interdependent members; mutual encouragement; and, trust between the leader and the team (Sohmen, 2013). Additionally Whetton & Cameron (2011) point out a few factors that contribute toward effective team performance. These are: a heterogeneous team composition; increasing familiarity among project team members; team motivation which sharpens competence; team goals and overall feedback; cohesion among team members; and, decision-making processes within the team.



Two main skills associated with a successful team are: playing advantageous roles, and providing feedback to others. Advantageous roles such as that of task-facilitating enhance performance of a team through direction-giving, urging, and summarizing; and, they influence the behaviors of team members to facilitate task accomplishment and group cohesion. By providing feedback on the other hand, a team can move forward with accomplishing tasks while building relationships with each other. Focusing feedback on the behavior (rather than on the person) is one way team members provide effective feedback to build positive relationships, rather than destroy team unity (Sohmen, 2013).

This balance is both constructive and remedial. Successful team development comes through a progression of stages: forming, norming, storming, and, performing (Manteklow, 2011; Tuckman, 1965). Teams must progress systematically through the first three stages in order to effectively advance to the fourth stage of performing. However, there are bound to be some overlaps between successive stages and the time taken by each team to transcend each stage will vary.

Developing a successful team requires great diligence and awareness on the part of the leader because it is as much an art as it is a science (Sohmen, 2013).

## **Section seven**

### **Palestinian Red Crescent Society**

#### **2.7.1 Introduction:**

The Palestine Red Crescent Society (PRCS), officially founded in December 1968, is a national humanitarian organization. Since its establishment, it caters to the health and welfare of the Palestinian people and others in need in the OPT and the Diaspora. It has 4,200 employees in OPT (West Bank and Gaza Strip), Lebanon, Syria, Egypt and Iraq in addition to its volunteer network of more than 20,000 people.

#### **2.7.2 Mission**

To provide humanitarian assistance, health and social services to the Palestinian people when and where needed. That is to prevent and alleviate human suffering wherever it may be found, to protect life and health and ensure respect for the human being, in times of peace and armed conflict and other emergencies, to work for the prevention of disease and for the promotion of health and social welfare, and to encourage voluntary service (<https://www.palestinercs.org/en>).

#### **2.7.3 Vision**

PRCS will be the leading humanitarian organization responding to the needs of the Palestinian population including the Diaspora, delivering quality humanitarian services and disseminating the Movement's Principles and International Humanitarian Law, with continued commitment to leveraging inaccessibility and inequality to health and social services, supporting the rights of vulnerable groups (<https://www.palestinercs.org/en>).

## **2.7.4 Principles**

The seven principles of the Red Cross and Red Crescent Movement:

### **a. Humanity**

The Red Cross and Red Crescent, born of a desire to bring assistance without discrimination to the wounded on the battlefield, endeavors' – in its international and national capacity – to prevent and alleviate human suffering wherever it may be found. Its purpose is to protect life and health and to ensure respect for the human being. It promotes mutual understanding, friendship, co-operation and lasting peace amongst all peoples (<https://www.palestinercs.org/en>).

### **b. Impartiality**

It makes no discrimination as to nationality, race, religious beliefs, class or political opinions. It endeavors only to relieve suffering, giving priority to the most urgent cases of distress (<https://www.palestinercs.org/en>).

### **c. Neutrality**

In order to continue to enjoy the confidence of all, the Red Crescent may not take sides in hostilities or engage at any time in controversies of a political, racial, religious or ideological nature (<https://www.palestinercs.org/en>).

### **d. Independence**

The Red Crescent is independent. The National Societies, while auxiliaries in the humanitarian services of their Governments and subject to the laws of their respective countries, must always maintain their autonomy so that they may be able at all times to act in accordance with Red Cross and Red Crescent principles (<https://www.palestinercs.org/en>).

### **e. Voluntary Service**

The Red Crescent is a voluntary relief organization not prompted in any manner by desire for gain.

### **f. Unity**

There can be only one Red Crescent Society in any one country. It must be open to all. It must carry on its humanitarian work throughout its territory.

### **g. `Universality**

The Red Crescent and Red Cross is a world-wide institution in which all Societies have equal status and share equal responsibilities and duties in helping each other (<https://www.palestinercs.org/en>).

## **2.7.5 Emergency Medical Services Department**

### **2.7.5.1 Introduction**

Emergency Medical Services (EMS) was established concurrently with the creation of PRCS in the Diaspora during the 1960s. They accompanied Palestinians in times of hardships and aggressions such as the war in Lebanon in 1982 as well as through recurrent aggressions during Al Aqsa Intifada and the latest war on Gaza. EMS constitutes essential health services provided by PRCS to Palestinian citizens and all individuals in need under normal and extraordinary conditions. Considering the importance of this humanitarian service, PRCS was entrusted by the Palestinian National Authority in 1996, by virtue of a presidential decree, with full responsibility for these services in the West Bank and Gaza. EMS services are offered by PRCS 24/7 through the 101 hotline.

PRCS emergency services now encompass 14 main centers, including one in East Jerusalem, and 26 subsidiary centers in the OPT. These centers are currently

assisted by a fleet of 140 ambulances and are manned by 348 paramedics and 200 volunteers. Moreover, PRCS runs its own EMS Institute, which is unique in Palestine and is specialized in providing EMS training to prepare basic and general paramedics through its two branches in Al Bireh and Gaza. PRCS is currently working on providing paramedic training to prepare advanced paramedics at this Institute. EMS staff constantly respect the principles of the International Movement even if they come under attack in the line of duty. Since September 2000, a total of 18 PRCS emergency medical technicians and volunteers have fallen in the line of duty (<https://www.palestinercs.org/en>).

### **2.7.5.2 Objective and Goals**

#### **2.7.5.2.1 The Overall objective:**

Provide Palestinian population with high quality of pre-hospital emergency medical services at any time in the OPT.

#### **2.7.5.2.2 Goals:**

- To insure the continuation of providing high quality of pre-hospital emergency medical services.
- To increase EMS Preparedness and Responding capacity.
- To monitor, follow up and ensure the implementation of EMS rules, regulations and protocols.
- To sustain and support the Emergency Medical Institute and its running programs.
- To enhance and support the role of volunteers in EMS effectively.
- To promote the first aid concept among the Palestinian community.

#### **2.7.5.2.3 Activates and Services**

EMS Teams operating through 14 main stations and 26 sub stations in the West Bank, including East Jerusalem, and the Gaza Strip, in addition to the EMS center located at the PRCS branch in Syria. These centers are currently assisted by a fleet of 140 ambulances.

EM Institute, which is one of the educational institutions affiliated to PRCS. It was established in 1996 with the mission of preparing qualified individuals in the field of pre-hospitalization EMS services. It is unique in the occupied Palestinian territories, and is specialized in providing EMS training through its branches in Al Bireh and Gaza. The Institute is open to all social categories and local institutions, through training sessions and workshops aimed at spreading awareness and social guidance in the field of first aid and emergency medical care.

PRCS has acceded to the membership of International Trauma Life Support, USA, and has thus been accredited as a licensed and qualified ITLS center (<https://www.palestinercs.org/en>).

## **Section eight**

### **Previous studies**

#### **2.8.1 Introduction**

This section, describes the literature search conducted during data analysis, outlines the major findings on information overload and related issues and describes the "state of the art".

#### **2.8.2 Overview of Previous Studies on leadership in stressful, complex rescue operations.**

The following is a selection of previous studies related to the topic of leadership in stressful and complex rescue operations, arranged in descending way:

##### **2.8.2.1 Mike Smith and Cary Cooper, 1994, University of Manchester Institute of Science and Technology, UK, titled "Leadership and Stress"**

The purpose of this study is to find out whether stress has a major impact on this effectiveness of leaders, because, if stress impairs leader performance, then we could be forgoing many of the benefits which "good leadership" can bring.

The study found also at an analytical level, stress and leadership can be decomposed into five major facets:

- a. Stress and leader emergence.
- b. Sources of stress in the leadership role.
- c. Leader stress and leader effectiveness.
- d. Follower stress and leadership.
- e. Leadership and stress in followers.

The findings of the study: it is important to understand the link between leadership and stress. Stressed leaders create stressed organizations and employees.

### **2.8.2.2 Wallenius, Larsson, 2006, titled “Leadership in Complex, Stressful Rescue Operations: A Qualitative Study”**

This article is built upon a doctrinal and literature review of comprehensive approach concepts and the larger international actors that currently use them, such as the UN, EU and NATO. It also focuses on how small actors, such as Sweden, can contribute within this collaborative framework. There is a focus on possible leadership challenges and suggestions of individual characteristics that would be desirable to handle these types of challenges. Examples of leadership challenges from Swedish informants were used to enrich the text from a Swedish perspective.

They found that there are many factors that contribute to the complexity of rescue operations like different and parallel political agendas, as well as cultural differences both within the organization and in relation to the host nation. In other hand they found that there is an emotional complexity such as distancing, rationalizing, externalizing, etc.

They also titled other proximal challenges which affect leadership as: Cultural competence, Time, Environment, Resources and Conflicts.

### **2.8.2.3 Aida Alvinus, 2007, titled “Leadership and coordination of rescue services during stressful operations – a short version”.**

The Purpose of this essay is to show how major theories about leadership can be applied to the field of research, which includes leadership, decision-making and collaboration of rescue services during complex, stressful situations.

The main questions of the essay to are:

- a. What special requirements are on management and coordination of rescue organizations?
- b. What theoretical considerations are relevant or not relevant when studying organizational collaboration during stressful situations?



He mentioned also that during the course's time, leadership research has been presented on the basis of four different dimensions: introduction, history of leadership research, contemporary leadership theories and leadership theories applied in public organizations and business

**2.8.2.4 Sjoberg, Wallenius and Larsson, 2011, titled "Leadership in complex, stressful rescue operations" A quantitative test of a qualitatively developed model.**

The purpose of the paper is to explore the universality of a qualitatively (grounded theory) developed model of leadership in complex and/or stressful rescue operations, the participants from three different organizations, with experiences of leadership during complex and/or stressful rescue operations and these organizations are the ambulance service, the police force and the rescue service.

And the Findings of the study showed that the most important factors in explaining the outcome of complex rescue operations were organizational climate before the incident, positive stress reactions, and personal knowledge of the co-actors during the episode. Cases where the leader appraised that the situation could not be resolved with the available resources were characterized by less favorable ratings, irrespective of whether humans were perceived as being threatened or not. The strength of this controllability aspect was interpreted in terms of a professional action-oriented identity.

**2.8.2.5 Hull, Sevdalis et. al., 2011 titled "Assessment of stress and teamwork in the operating room" an exploratory study.**

The purpose of the study is to assess teamwork and stress levels experienced by operations room team members.

Data were collected from 20 elective surgical cases. The validated Observational Teamwork Assessment for Surgery was used to assess teamwork, whereas stress was assessed using the validated State-Trait Anxiety Inventory.

And the result was: Teamwork was overall above the scale midpoint, with higher scores preoperatively than in subsequent phases of the procedure, and also higher ratings for anesthetic sub teams compared with surgical and nursing sub teams. Overall stress levels were low. Qualitative analyses revealed differences across team members: circulating staff preoperatively and assistant surgeons intraoperatively and postoperatively were most likely to be stressed.

#### **2.8.2.6 Allwood and Salo, 2012, titled “Decision-making styles, stress and gender among investigators”.**

The purpose of the study was to analyze the relationship between each of five decision-making styles, including Rational, Intuitive, Dependent, Avoidant, and Spontaneous and two indicators of stress, Perceived stress and Sleep quality, among administrative officers and investigators at three Swedish public authorities: The National Tax board, the Social Insurance agency, and the Police authority.

The study showed that there is a strong relation between decision making and stress and the result of the study showed that avoidant style and, to some extent, the Dependent style were significantly associated with higher Perceived Stress and poorer Sleep. The results for the specific organizations showed that the rational style was advantageous at the tax board only.

#### **2.8.2.7 Katrin Starcke and Matthias Brand, 2012, titled “Decision making under stress” a selective review.**

The purpose of this review is to summarize the findings from studies that investigated the impact of stress on decision making. The review includes those studies that examined decision making under stress in humans and were published between 1985 and October 2011. The review focuses on studies that have examined the influence of acutely induced laboratory stress on decision making and that measured both decision-making performance and stress responses. And The results

from the studies that were included in the review support the assumption that stress affects decision making. If stress confers an advantage or

disadvantage in terms of outcome depends on the specific task or situation. The results also emphasize the role of mediating and moderating variables. The results are discussed with respect to underlying psychological and neural mechanisms and implications for everyday decision making.

#### **2.8.2.8 Victor S. Sohmen, 2013, titled “Leadership and Teamwork: Two Sides of the Same Coin”**

The purpose of the paper is to explore and propose the best practices that would enable an optimal balancing of leadership and teamwork towards successful outcomes in a competitive environment.

The study founded that the most competent leader could be staring at the face of failure if the team that is led fails to measure up to the leader’s objectives and get derailed. Indeed, teams can be rudderless without effective and wise leadership. There has been significant debate as to the styles and characteristics of leadership that engender optimal team performance. Similarly, the constituents of teams that are remarkably effective have been studied and emulated. Obviously, leadership and teamwork cannot exist without each other. They have to be balanced, coordinated, and synergized for optimal organizational performance towards successful outcomes.

#### **2.8.2.9 Tabassi, Ramli, Bakar and Pakir, 2014, titled “Transformational leadership and teamwork improvement”**

The purpose of the study: A need for effective leadership and adequate managing the personnel is vital for every construction organization. Meanwhile, the dynamic and complex environments of the industry may be caused that not much research has been conducted on leadership practices in the industry. The purpose of this paper is to study the leadership style of the construction leaders in Iran and explore the correlation of

transformational leadership practices with teamwork improvement in the construction companies.

The research found the level of the leaders' orientation for people and task in their leadership style, their transformational leadership qualities, and the relationship of transformational leadership with teamwork improvement in the respondents' companies.

**2.8.2.10 Yan-Hong Yao and Ying-Ying Fan, Yong-Xing Guo and Yuan Li, 2014, titled "Leadership, work stress and employee behavior"**

The paper aims to explore the influences of leadership and work stress on employee behavior, and the moderating effects of transactional and transformational leadership on the relationship between work stress and employee negative behavior.

Findings: The empirical results show that there is a positive correlation between work stress and employee negative behavior. Transformational leadership has negative impacts on work stress and employee negative behavior, whereas transactional leadership has positive influences. Moreover, transactional leadership strengthens the influence of work stress on employee negative behavior, whereas transformational leadership has no moderating effect.

Practical implications— First, enterprises should take employees' stress tolerance into account in selection and recruitment, and enhance stress management. Second, by demonstrating inspirational vision and personal charisma, open leadership style, rather than short-term transactional behavior, will motivate subordinates more effectively. Finally, distribution system should be improved to achieve principle and procedural justice.

Originality/value— The paper extends the research on employee behavior by investigating the impacts of leadership and work stress. According to Chinese social, economic and cultural characteristics, this research examines the influence of contemporary Chinese mindset and pluralistic values on employee behavior. Open

leadership is proposed as a new leadership style, which contributes to improving leadership behavior and preventing negative behavior in workplace.

**2.8.2.11 K. Fransen, N. K. Steffens, S. A. Haslam, N. Vanbeselaere, G. Vande Broek, F. Boen, 2015, titled “We will be champions: Leaders' confidence in 'us' inspires team members' team confidence and performance”.**

The purpose of this research is to elaborate upon previous research that has examined the impact of leaders' confidence in their team on team members' confidence and performance. The findings showed that leader confidence has been shown to have an uplifting influence on team member confidence and performance at the same time that leaders' lack of confidence leads team members both to doubt those leaders and to distance them psychologically from the team in ways that compromise their capacity to perform. In sum, it appears that by articulating a belief that “we will be champions”, leaders are able to make ‘us’ matter in ways that inspire team members to carve out a path to success.

**2.8.2.12 Leder, Häusser and Mojzisch, 2015, titled “Exploring the underpinnings of impaired strategic decision-making under stress”**

The purpose of the study is to examine the underpinnings of impaired strategic decision-making under stress. In contrast to previous laboratory based research, the study conducted a quasi-experiment in a real life stress situation. The results showed that stress impaired strategic reasoning in the beauty contest game. Importantly, even when only including participants who understood the rules of the game in the analyses, stress still increased the numbers chosen in the beauty contest. Furthermore, we found that participants in the stress condition were significantly less likely to base their chosen number on their belief about other players' choices. Hence, stress not only impairs understanding of the math behind the beauty contest game but also the degree of strategizing.

### **2.8.3 Assessment of Previous Studies**

Leadership in stressful and complex rescue operations received considerable attention from management researchers and management scientists.

Much of the interest in analyzing leadership styles and leader behaviour stems from concern for the behavioural consequences that are hypothesized to result from satisfaction that associated with the result of this behaviour.

While most of the studies considered that decision making is the main factor in rescue operation like Leeder, Häusser and Mojzisch, 2015 and Katrin Starcke and Matthias Brand, 2012 and both of them defended their point view, Yan-Hong Yao and Ying-Ying Fan, Yong-Xing Guo and Yuan Li, 2014 and Allwood and Salo 2012, also defended their point view and insist that stress is the main role in leadership in stressful and complex rescue operations, anyway the researcher founded that both of them are in the same side while desecion making and stress are main factors which affected leadership in stressful and complex rescue operations.

On other hand, many other research's identifies another main factors like K. Fransen, N. K. Steffens, S. A. Haslam, N. Vanbeselaere, G. Vande Broek, F. Boen, 2015 and Tabassi, Ramli, Bakar and Pakir, 2014, which both of them highlight the impact of teamwork on leadership in stressful and complex rescue operations.

To conclude, all the previous studies consensuses that leadership in stressful and complex rescue operations are affected by decision making, leader experience, teamwork and stress and no one of them had a serious criticisms to the other.

# **Chapter three**

## **Methodology**

## **Chapter three**

### **Methodology**

#### **3.1 Methodology**

This chapter describes the methodology that was used in this research. The adopted methodology to accomplish this study uses the following techniques: the information about the research design, research population, questionnaire design, statistical data analysis, content validity and pilot study.

#### **3.2 Research Design**

**The first phase of the research** thesis proposal included identifying and defining the problems and establishment objective of the study and development research plan.

**The second phase of the research** included a summary of the comprehensive literature review. Literatures on claim management were reviewed.

**The third phase of the research** included a field survey which was conducted with "Leadership under the pressure and the complexities of the rescue operations at the emergency departments of medical services in Red Crescent"

**The fourth phase of the research** focused on the modification of the questionnaire design, through distributing the questionnaire to pilot study, The purpose of the pilot study was to test and prove that the questionnaire questions are clear to be answered in a way that help to achieve the target of the study. The questionnaire was modified based on the results of the pilot study.

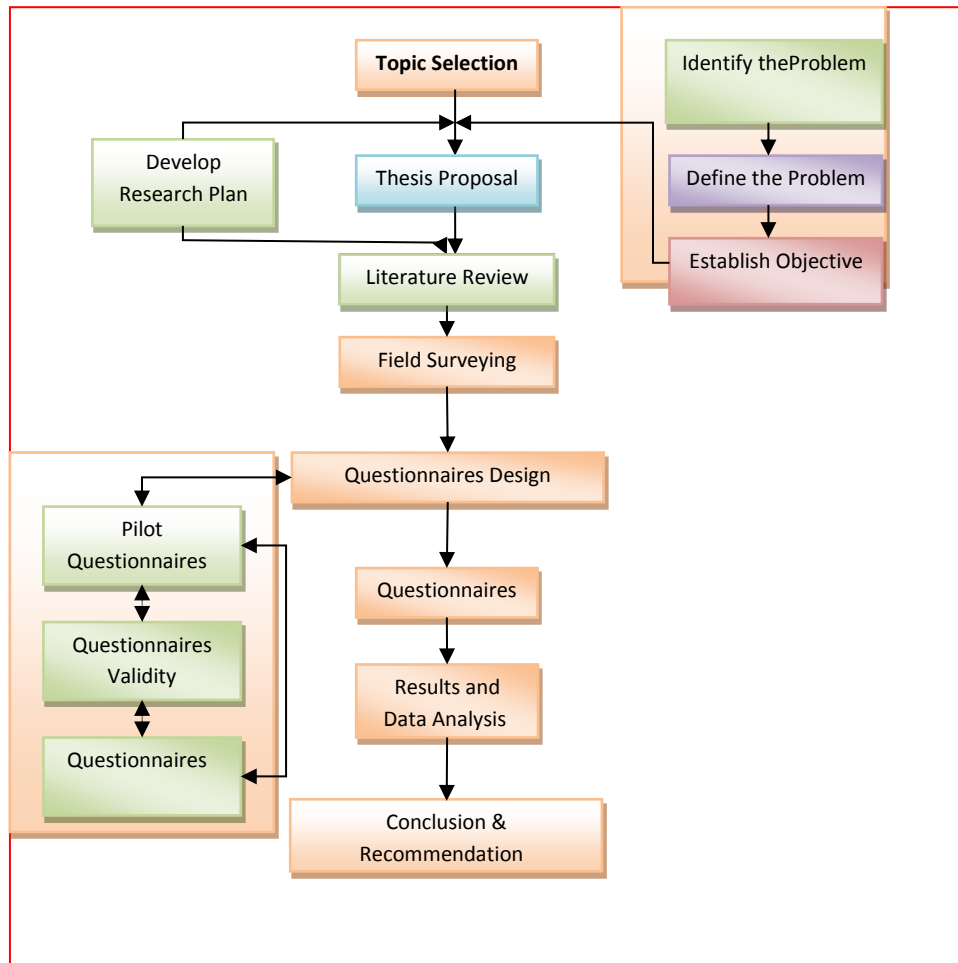
**The fifth phase of the research** focused on distributing questionnaire. This questionnaire was used to collect the required data in order to achieve the research objective.

**The sixth phase of the research** was data analysis and discussion. Statistical Package for the Social Sciences, (SPSS) was used to perform the required analysis. The final phase includes the conclusions and recommendations.

One hundred and twenty two questionnaires were distributed to the research sample and One hundred and sixteen questionnaires are received.



Figure (3.1) shows the methodology flowchart, which leads to achieve the research objective.



**Figure (3.1): illustrates the methodology flow chart.**

### 3.3 Data Collection Methodology:

In order to collect the needed data for this research, we use the secondary resources in collecting data such as books, journals, statistics and web pages, in addition to preliminary resources that not available in secondary resources through distribute questionnaires on study population in order to get their opinions about “Leadership under the pressure and the complexities of the rescue operations at the emergency departments of medical services in Red Crescent “.

Research methodology depends on the analysis of data on the use of descriptive analysis, which depends on the poll and use the main program (SPSS).

### **3.4 Research population**

The study population consists of 122 persons from the administrative and technical staff serving in EMS departments in Gaza strip. These stations were selected because they are covering the southern part of Gaza strip, Due to the small size of the study population, the researcher use all population as a sample study , questionnaires were distributed to the research population and 116 questionnaires are received , and the following tables illustrated the properties of the samples.

#### **Personal information.**

##### **1. Gender:**

Table No.(3.1) show that 93.1% from the sample are " Male " , and 6.9% from the sample are " Female " which is a logic percentage from the researcher point view because such heavy duty needs for men to be involved more than women and of course the cultural factor is also a main factor for such percentage.

**Table (3.1): Gender**

<b>Gender</b>	<b>Frequency</b>	<b>Percentages</b>
Male	108	93.1
Female	8	6.9
<b>Total</b>	<b>116</b>	<b>100.0</b>

##### **2.Age :**

Table No.(3.2) show that 17.2% from the sample's age " less than 30 years " , and 37.9% from " 30 to less than 40 years " , and 36.2 % from " 40 to less than 50 years " , and 8.6 % " 50 years and more " .

From the researcher point view, this percentage is enhanced the theory that leaders experience is a main factor in such positions and according to the age of the employees which indicate that they have these experience.

**Table (3.2): Age**

Age	Frequency	Percentages
Less than 30 year	20	17.2
30 to less than 40 year	44	37.9
40 to less than 50 year	42	36.2
50 year and more	10	8.6
<b>Total</b>	<b>116</b>	<b>100.0</b>

### 3. Educational Degree:

Table No. (3.3) Show that %77.6 from the sample's educational degree "Diploma", and 18.1% "Bachelor", and 4.3% "Others". these percentage shows that the main rule is not the education, means that experience and training courses is more important than educational degree.

**Table (3.3): Educational Degree**

Educational Degree	Frequency	Percentages
Diploma	90	77.6
Bachelor	21	18.1
Master	0	0.0
PhD	0	0.0
Other	5	4.3
<b>Total</b>	<b>116</b>	<b>100.0</b>

### 4. Years of Experience:

Table No.(3.4) show that 20.7% from the sample's experience are "less than five years", and 36.2% from "5 to less than 10 years", and 19.0% from "10 to less than 15 years", and 24.1% from "15 years and more".

**Table(3.4): Years of Experience**

<b>Years of Experience</b>	<b>Frequency</b>	<b>Percentages</b>
Less than five years	24	20.7
5 to less than 10 years	42	36.2
10 to less than 15 years	22	19.0
15 years and more	28	24.1
<b>Total</b>	<b>116</b>	<b>100.0</b>

**5. Job title**

Table No.(3.5) show that 4.3% from the sample's job title are " Deputy head of the center ", and 50.0% are " Paramedic ", and 36.2% are " ambulance driver ", and 6.9 % are " A signalofficial ", and 2.6% are " Others job " .

**Table (3.5): Job title**

<b>Job title</b>	<b>Frequency</b>	<b>Percentages</b>
head of center	0	0.0
Deputyhead of the center	5	4.3
Paramedic	58	50.0
ambulance driver	42	36.2
A signalofficial	8	6.9
Others	3	2.6
<b>Total</b>	<b>116</b>	<b>100.0</b>

**6. Region**

Table No.(3.6) show that 19.8% from the sample from " Rafah " , and 23.3% from " KhanYonis " , and 22.4 % from " Middle Area " , and 16.4% from " Gaza " , and 18.1% from " Jabalia " .

**Table (3.6): Region**

<b>Region</b>	<b>Frequency</b>	<b>Percentages</b>
Rafah	23	19.8
KhanYonis	27	23.3
Middle Area	26	22.4
Gaza	19	16.4
Jabalia	21	18.1
<b>Total</b>	<b>116</b>	<b>100.0</b>

## 7. The wars that participants engaged in:

Table No.(3.7) show that 26.0 % from participated in rescue operations during " 2008year " , and 35.0% during " 2012 year " , and 39.0 % during "2014 year " . these percentage indicates that EMS departments enhanced the human factor after each war to be able to deal with rescue operation as a lesson learned.

**Table. (3.7): The wars that participants engaged into**

<b>The war that participated in rescue operations during</b>	<b>Frequency</b>	<b>Percentages</b>
2008year	72	26.0
2012 year	97	35.0
2014 year	108	39.0
<b>Total</b>	<b>277</b>	<b>100.0</b>

## 3.5 Questionnaire content

The questionnaire was provided with a covering letter explaining the purpose of the study, the way of responding, the aim of the research and the security of the information in order to encourage a high response. The questionnaire included multiple choice questions: which used widely in the questionnaire, the variety in these questions aims first to meet the research objectives, and to collect all the necessary data that can support the discussion, results and recommendations in the research.

The sections in the questionnaire will verify the objectives in this research related to Leadership under the pressure and the complexities of the rescue operations at the emergency departments of medical services in Red Crescent as the following:

**Section one:** Personal information include 7 questions

**Section two:** consist from five fields as follows:

- **first field:** Stress include 10 questions
- **Second field:** Teamwork include 11 questions
- **Third field:** leaders experience include 9 questions
- **Fourth field:** decision making include 10 questions

- **Fifth field:** ability of leadership to deal with stressful complex rescue operations include 8 questions

The respondent can answer the questionnaire item follows lekart scale by assigning it with a number from 1 to 5 indicating his/her acceptance degree of this item, where (5) represents the highest acceptance degree about an item and (1) represents the lowest acceptance degree about it as illustrated in table No.(3.8) .

**Table (3.8): lekart scale**

Level	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Scale	1	2	3	4	5
Weight mean	20%-36%	36%-52%	52%-68%	68%-84%	84%-100%

### 3.6 Pilot Study

A pilot study for the questionnaire was conducted before collecting the results of the sample. It provides a trial run for the questionnaire, which involves testing the wordings of question, identifying ambiguous questions, testing the techniques that used to collect data, and measuring the effectiveness of standard invitation to respondents.

### 3.7 Validity of the Research

We can define the validity of an instrument as a determination of the extent to which the instrument actually reflects the abstract construct being examined. "Validity refers to the degree to which an instrument measures what it is supposed to be measuring". High validity is the absence of systematic errors in the measuring instrument. When an instrument is valid; it truly reflects the concept it is supposed to measure. Achieving good validity required the care in the research design and sample selection. The amended questionnaire was by the supervisor and three expertises in the business administration environment to evaluate the procedure of questions and the method of analyzing the results. The expertise agreed that the questionnaire was valid and suitable enough to measure the purpose that the questionnaire designed for.

### **3.8 Content Validity of the Questionnaire**

Content validity test was conducted by consulting two groups of experts. The first was requested to evaluate and identify whether the questions agreed with the scope of the items and the extent to which these items reflect the concept of the research problem. The other was requested to evaluate that the instrument used is valid statistically and that the questionnaire was designed well enough to provide relations and tests between variables. The two groups of experts did agree that the questionnaire was valid and suitable enough to measure the concept of interest with some amendments.

### **3.9 Statistical Validity of the Questionnaire**

To insure the validity of the questionnaire, two statistical tests should be applied. The first test is Criterion-related validity tests (Pearson test) which measure the correlation coefficient between each item in the field and the whole field. The second test is structure validity test (Pearson test) that used to test the validity of the questionnaire structure by testing the validity of each field and the validity of the whole questionnaire. It measures the correlation coefficient between one field and all the fields of the questionnaire that have the same level of similar scale.

### **3.10 Criterion Related Validity:**

#### **1) Internal consistency:**

Internal consistency of the questionnaire is measured by a scouting sample, which consisted of thirty questionnaires, through measuring the correlation coefficients between each question in one field and the whole field. Table No. (3.9-3.13) below shows the correlation coefficient and p-value for each field items. As show in the table the p- Values are less than 0.05 or 0.01,so the correlation coefficients of this field are significant at  $\alpha = 0.01$  or  $\alpha = 0.05$ , so it can be said that the paragraphs of this field are consistent and valid to be measure what it was set for.

**Table (3.9): The correlation coefficient between each question in the field and the whole field(The first field: Stress)**

No.	Question	Pearson coefficient	p-value
1	Unclear instruction from top management during wars increases stress over employee	0.737	0.000
2	Field staff has the authority to take decisions during complex situations which decrease the stress over them.	0.557	0.001
3	Stress over top management during wars reflected over employees and decrease stress over them.	0.481	0.007
4	During wars, stress push the employees to take quick reactions and Unintended consequences	0.614	0.000
5	Regular training to deal with complex rescue operations during wars reduce the stress over employees	0.636	0.000
6	You are minimizing the work stress by following medical or psychological instructions	0.657	0.000
7	The organization is holding special programs to decrease stress over employees during wars	0.395	0.031
8	There is a follow up from top management for the employees in case they were under a massive stress	0.622	0.000
9	Management is seeking for a suitable solutions for employees when they are under stress	0.415	0.022
10	Feedback and stress release are basic factors to minimize the stress during wars	0.569	0.001

**Table (3.10):The correlation coefficient between each question in the field and the whole field (The second field: Teamwork)**

No.	Question	Pearson coefficient	p-value
1	There is an affective coordination among employees in emergency department during wars	0.410	0.024
2	Teamwork enhancing employee's leadership skills	0.637	0.000
3	Good and cooperative team contributing in stress decreasing	0.553	0.002
4	Pre coordination and distributing tasks among the team enhancing leadership skills and helping to achieve the objectives of rescue operations	0.813	0.000
5	You can speak up loudly about team problems	0.780	0.000
6	I obligate to my tasks and I don't interfere in others business to keep teamwork spirit	0.748	0.000
7	There is a backup team for emergency situations like wars	0.746	0.000
8	I can adapted with any team during wars as needed	0.796	0.000
9	There is a mechanism for an effective communication to exchange information with the team during wars	0.544	0.002
10	Task rotation is important for the employee to became familiar with the majority of team tasks	0.714	0.000
11	Top management support teamwork and contributed in enhancing leadership skills for the team	0.616	0.000



**Table (3.11): The correlation coefficient between each question in the field and the whole field (The third field: leaders experience)**

No.	Question	Pearson coefficient	p-value
1	Your tasks during wars are equivalent with your experience and leadership skills	0.567	0.001
2	I'm always trying to improve my leadership skills, especially the skills for dealing with rescue operations during wars	0.680	0.000
3	I'm proposing a professional suggestions which help in facilitating rescue operations during wars	0.586	0.001
4	My interventions and notes are taken in team and top management considerations	0.701	0.000
5	Management encourages employees in emergency departments to improve their leadership skills	0.774	0.000
6	There is a professional trainings for improving leadership skills for emergency departments employees	0.683	0.000
7	There is a regular meeting with new employees to exchange experiences within the team	0.627	0.000
8	New employees are chosen according to their experience	0.652	0.000
9	There is a professional trainings for new employees which increase their experience and leadership skills	0.719	0.000

**Table (3.12): The correlation coefficient between each question in the field and the whole field (The fourth field: decision making)**

No.	Question	Pearson coefficient	p-value
1	Efficient assistants helps in taking a quick decision during war	0.686	0.000
2	Management delegates employees to take decisions in emergency situations	0.741	0.000
3	Employees are updated continuously about work requirements	0.793	0.000
4	I have the ability to analyze the problem and then take the decision	0.817	0.000
5	The decision must be studied and analyzed before taken	0.777	0.000
6	You depend on your practical experience to take the decision	0.795	0.000
7	There is affright from banishment when the decision is wrong	0.544	0.002
8	Emergency situations need quick decisions	0.819	0.000
9	There is a consultation between the team before taking the decision in emergency situations	0.558	0.001
10	The organization is working on enhancing leadership skills in decision making for ambulance workers during wars	0.465	0.010

**Table (3.13): The correlation coefficient between each question in the field and the whole field (The fifth field: ability of leadership to deal with stressful complex rescue operations)**

No.	Question	Pearson coefficient	p-value
1	Having a leadership skills reduce the stress over employee during wars	0.812	0.000
2	The leader has the ability to control the stress from complex operations	0.761	0.000
3	Take the right decision is one of the successful Characters of the leader	0.822	0.000
4	Quick and wise decisions during wars enhancing the role of the leader	0.707	0.000
5	Good leader works effectively within the team during wars	0.844	0.000
6	Distributing tasks among the team is the character of leader	0.884	0.000
7	The ability to lead complex rescue operations is attached to leader experience	0.887	0.000
8	Leadership skills increased according to the increase of employee's practical experience	0.889	0.000

### 3.11 Structure Validity of the Questionnaire

Structure validity is the second statistical test that used to test the validity of the questionnaire structure by testing the validity of each field and the validity of the whole questionnaire. It measures the correlation coefficient between one field and all the fields of the questionnaire that have the same level of liker scale.

As shown in table No. (3.14), the significance values are less than 0.01, so the correlation coefficients of all the fields are significant at  $\alpha = 0.01$ , so it can be said that the fields are valid to be measured what it was set for to achieve the main aim of the study

**Table (3.14): Structure Validity of the Questionnaire**

No.	Field	No. of items	Pearson correlation coefficient	p-value
1	Stress	10	0.664	0.000
2	Teamwork	11	0.843	0.000
3	leaders experience	9	0.852	0.000
4	decision making	10	0.920	0.000
5	ability of leadership to deal with stressful complex rescue operations	8	0.792	0.000

### 3.12 Reliability of the Research

Reliability of an instrument is the degree of consistency with which it measures the attribute it is supposed to be measuring. The test is repeated to the same sample of people on two occasions and then compares the scores obtained by computing a reliability coefficient. For the most purposes reliability coefficient above 0.70 are considered satisfactory. Period of two weeks to a month is recommended between two tests. Due to complicated conditions that the consumer is facing at the time being, it was too difficult to ask them to respond to our questionnaire twice within short period. The statistician's explained that, overcoming the distribution of the questionnaire twice to measure the reliability can be achieved by using Cronbach Alpha coefficient and Half Split Method through the SPSS software.

### 3.13 Half Split Method

This method depends on finding Pearson correlation coefficient between the means of odd rank questions and even rank questions of each field of the questionnaire. Then, correcting the Pearson correlation coefficients can be done by using Spearman Brown correlation coefficient of correction. The corrected correlation coefficient (consistency coefficient) is computed according to the following equation :

Consistency coefficient =  $2r/(r+1)$ , where  $r$  is the Pearson correlation coefficient. The normal range of corrected correlation coefficient  $2r/(r+1)$  is between 0.0 and + 1.0. As shown in Table No.(3.15), and the general reliability for all items equal 0.884, and the significant ( $\alpha$ ) is less than 0.05 so all the corrected correlation coefficients are significance at  $\alpha = 0.05$ . It can be said that according to the Half Split method, the dispute causes group are reliable.

**Table (3.15): Split-Half Coefficient method**

No.	Section	No. of items	person-correlation	Spearman-Brown Coefficient
1	Stress	10	0.782	0.878
2	Teamwork	11	0.797	0.887
3	leaders experience	9	0.843	0.915
4	decision making	10	0.754	0.860
5	ability of leadership to deal with stressful complex rescue operations	8	0.784	0.879
	<b>All fields</b>	<b>48</b>	0.792	0.884

### 3.14 Cronbach's Coefficient Alpha

This method is used to measure the reliability of the questionnaire between each field and the mean of the whole fields of the questionnaire. The normal range of Cronbach's coefficient alpha value between 0.0 and + 1.0, and the higher values reflects a higher degree of internal consistency. As shown in Table No. (3.16) The Cronbach's coefficient alpha was calculated. The general reliability for all items equal 0.907. This range is considered high; the result ensures the reliability of the questionnaire.

**Table (3.16): For Reliability Cronbach's Alpha**

No.	Fields	No. of items	Cronbach's Alpha
1	Stress	10	0.892
2	Teamwork	11	0.901
3	leaders experience	9	0.928
4	decision making	10	0.872
5	ability of leadership to deal with stressful complex rescue operations	8	0.899
	<b>All fields</b>	<b>48</b>	0.907

#### Statistical Manipulation:

To achieve the research goal, researcher used the statistical package for the Social Science (SPSS) for Manipulating and analyzing the data.

**☒ Statistical methods are as follows:**

- 1- Frequencies and Percentile
- 2- Alpha- Cronbach Test for measuring reliability of the items of the questionnaires
- 3- Person correlation coefficients for measuring validity of the items of the questionnaires.
- 4- Spearman –Brown Coefficient
- 5- One sample t test
- 6- Independent Samples T Test.
- 7- One way ANOVA test for the difference between means three samples or more
- 8- Multiple regression analysis
- 9- Scheffe test for multiple comparisons between means of the samples.

**3.15 Test of Normality**

**One sample K-S test** will be used to identify if the data follow normal distribution or not, this test is considered necessary in case testing hypotheses as most parametric Test stipulate data to be normality distributed and this test used when the size of the sample are greater than or equal 50.

Results test as shown in table (3.17) , clarifies that the calculated p-value is greater than the significant level which is equal 0.05 ( p-value. > 0.05), this in turn denotes that data follows normal distribution, and so parametric tests must be used.

**Table (3.17):Test Of Normality (One sample K-S)**

No.	Fields	No. of items	Statistic test	P-value
1	Stress	10	1.259	0.084
2	Teamwork	11	1.108	0.172
3	leaders experience	9	1.120	0.163
4	decision making	10	1.333	0.057
5	ability of leadership to deal with stressful complex rescue operations	8	0.666	0.767
	<b>All fields</b>	48	1.295	0.070

### 3.16 Discussion and hypotheses test

In the following tables We use a one sample t test to test if the opinion of the respondent in the content of the sentences are positive ( weight mean greater than "60.0%" and the p-value less than 0.05) otherwise the opinion of the respondent in the content of the sentences are not positive.

#### The first field: Stress

To answer this question we use a one sample T test for the opinion of the respondent about Stress. Where the highest two items according to the weight mean as follows:

1. In item No. (5) the weight mean equal " 84.14%" and p-value equal " 0.000" which is less than 0.05, that means (Regular training to deal with complex rescue operations during wars reduce the stress over employees).
2. In item No. (7) the weight mean equal " 84.14%" and p-value equal " 0.000" which is less than 0.05, that means (The organization is holding special programs to decrease stress over employees during wars).

And the lowest two items according to the weight mean as follows:

1. In item No. (4) the weight mean equal " 75.00%" and p-value equal " 0.000" which is less than 0.05, that means (During wars, stress push the employees to take quick reactions and Unintended consequences).
2. In item No. (3) the weight mean equal " 72.76%" and p-value equal " 0.000" which is less than 0.05, that means (Stress over top management during wars reflected over employees and decrease stress over them.).

For general the results for all items of the field (Stress ) show that the average mean equal 3.94 and the weight mean equal 78.79% which is greater than " 60%" and the value of T test equal 17.886 which is greater than the critical value which is equal 1.98 and the p- value equal 0.000 which is less than 0.05, means that Regular training to deal with complex rescue operations during wars reduce the stress over

employees and Unclear instruction from top management during wars increases stress over employee at significance level  $\alpha \leq 0.05$

The result agreed with the following studies:

Ferris (1996), noticed that internal offensive or defensive reaction which caused by stress for prolonged periods of time causes an eventual deterioration of physical, mental, and emotional health.

Leonard (1994), emphasis that doing regular exercises will reduce the stress.

**Table (3.18): Stress**

No.	Items	Mean	standard deviation	Weight mean	t-value	P-value
5	Regular training to deal with complex rescue operations during wars reduce the stress over employees	4.21	0.991	84.14	13.111	0.000
7	The organization is holding special programs to decrease stress over employees during wars	4.21	0.839	84.14	15.485	0.000
10	Feedback and stress release are basic factors to minimize the stress during wars	4.06	0.954	81.21	11.976	0.000
1	Unclear instruction from top management during wars increases stress over employee	4.05	1.094	81.03	10.352	0.000
8	There is a follow up from top management for the employees in case they were under a massive stress	3.94	0.944	78.79	10.716	0.000
6	You are minimizing the work stress by following medical or psychological instructions	3.93	0.810	78.62	12.380	0.000
9	Management is seeking for a suitable solutions for employees when they are under stress	3.85	0.962	77.07	9.551	0.000
2	Field staff has the authority to take decisions during complex situations which decrease the stress over them.	3.76	1.124	75.17	7.270	0.000
4	During wars, stress push the employees to take quick reactions and Unintended consequences	3.75	1.046	75.00	7.725	0.000

No.	Items	Mean	standard deviation	Weight mean	t-value	P-value
3	Stress over top management during wars reflected over employees and decrease stress over them.	3.64	1.066	72.76	6.443	0.000
	<b>All items</b>	3.94	0.566	78.79	17.886	0.000

Critical value of t at df "115" and significance level 0.05 equal 1.98

### **The second field: Teamwork**

To answer this question we use a one sample t test for the opinion of the respondent about Teamwork and the results shown in Table No. (3.19) where the highest two items according to the weight mean as follows:

In item No. (4) the weight mean equal " 86.55%" and p-value equal " 0.000" which is less than 0.05, that means (Pre coordination and distributing tasks among the team enhancing leadership skills and helping to achieve the objectives of rescue operations).

In item No. (3) the weight mean equal " 85.86%" and p-value equal " 0.000" which is less than 0.05, that means (Good and cooperative team contributing in stress decreasing).

And the lowest two items according to the weight mean as follows:

1. In item No. (7) the weight mean equal " 77.93%" and p-value equal " 0.000" which is less than 0.05, that means (There is a backup team for emergency situations like wars).
2. In item No. (11) the weight mean equal " 77.76%" and p-value equal " 0.000" which is less than 0.05, that means (Top management support teamwork and contributed in enhancing leadership skills for the team).



To summarize the results for all items of the field (Teamwork) show that the average mean equal 4.10 and the weight mean equal 82.04% which is greater than “60%” and the value of t test equal 19.135 which is greater than the critical value which is equal 1.98 and the p- value equal 0.000 which is less than 0.05, means that affective coordination among employees in emergency department during wars at significance level  $\alpha \leq 0.05$

The result agreed with the following studies:

Salas et. al(2005), found that coordinating mechanisms such as shared mental models, closed-looped communication, and mutual trust are main factors which affecting leadership and team work.

E. Morrison (2014), also found that the importance of speaking up (which considered as example for team coordination) as a central teamwork competence is being more and more acknowledged.

**Table (3.19): Teamwork**

No.	Items	Mean	standard deviation	Weight mean	t-value	P-value
1	There is an affective coordination among employees in emergency department during wars	4.08	0.925	81.55	12.553	0.000
2	Teamwork enhancing employee’s leadership skills	4.27	0.806	85.34	16.933	0.000
3	Good and cooperative team contributing in stress decreasing	4.29	0.802	85.86	17.358	0.000
4	Pre coordination and distributing tasks among the team enhancing leadership skills and helping to achieve the objectives of rescue operations	4.33	0.842	86.55	16.979	0.000
5	You can speak up loudly about team problems	3.91	0.900	78.28	10.936	0.000
6	I obligate to my tasks and I don’t interfere in others business to keep teamwork spirit	4.18	0.919	83.62	13.836	0.000
7	There is a backup team for emergency situations like wars	3.90	0.954	77.93	10.117	0.000

No.	Items	Mean	standard deviation	Weight mean	t-value	P-value
8	I can adapted with any team during wars as needed	4.11	0.832	82.24	14.402	0.000
9	There is a mechanism for an effective communication to exchange information with the team during wars	4.03	0.796	80.52	13.875	0.000
10	Task rotation is important for the employee to became familiar with the majority of team tasks	4.14	0.822	82.76	14.901	0.000
11	Top management support teamwork and contributed in enhancing leadership skills for the team	3.89	0.994	77.76	9.624	0.000
	<b>All items</b>	4.10	0.620	82.04	19.135	0.000

Critical value of t at df "115" and significance level 0.05 equal 1.98

### **The third field: leaders experience**

To answer this question we use a one sample t test for the opinion of the respondent about leaders experience and the results shown in Table No. (3.19) where the highest two items according to the weight mean as follows:

1. In item No. (3) the weight mean equal "83.97%" and p-value equal " 0.000" which is less than 0.05, that means (I'm proposing a professional suggestions which help in facilitating rescue operations during wars).
2. In item No. (2) the weight mean equal " 83.45%" and p-value equal " 0.000" which is less than 0.05, that means (I'm always trying to improve my leadership skills, especially the skills for dealing with rescue operations during wars).

And the lowest two items according to the weight mean as follows:

1. In item No. (7) the weight mean equal " 75.86%" and p-value equal " 0.000" which is less than 0.05, that means (There is a regular meeting with new employees to exchange experiences within the team).
2. In item No. (8) the weight mean equal " 75.52%" and p-value equal " 0.000" which is less than 0.05, that means (New employees are chosen according to their experience).

For general the results for all items of the field (leaders experience) show that the average mean equal 4.03 and the weight mean equal 80.61% which is greater than "60%" and the value of t test equal 16.954 which is greater than the critical value which is equal 1.98 and the p-value equal 0.000 which is less than 0.05, means that New employees are chosen according to their experience, and There is a regular meeting with new employees to exchange experiences within the team at significance level  $\alpha \leq 0.05$

The result agreed with following studies:

John & Srivastava, 1999; McCrae, 1994, results that people who score high in openness to experience are likely to cope with organizational change, might see new approaches to problem solving, and might think outside the box, all of which are characteristics of intellectual stimulation.

Judge, Bono, et al., 2002, also agreed that Openness to experience is related to creative thinking, an important skill of effective leaders.

**Table(3.20): Leaders experience**

No.	Items	Mean	standard deviation	Weight mean	t-value	P-value
1	Your tasks during wars are equivalent with your experience and leadership skills	4.08	0.825	81.55	14.065	0.000
2	I'm always trying to improve my leadership skills, especially the skills for dealing with rescue operations during wars	4.17	0.857	83.45	14.726	0.000
3	I'm proposing a professional suggestions which help in facilitating rescue operations during wars	4.20	0.847	83.97	15.243	0.000
4	My interventions and notes are taken in team and top management considerations	4.11	0.832	82.24	14.402	0.000
5	Management encourages employees in emergency departments to improve their leadership skills	4.12	0.866	82.41	13.933	0.000

No.	Items	Mean	standard deviation	Weight mean	t-value	P-value
6	There is a professional trainings for improving leadership skills for emergency departments employees	4.05	0.873	81.03	12.972	0.000
7	There is a regular meeting with new employees to exchange experiences within the team	3.79	0.991	75.86	8.616	0.000
8	New employees are chosen according to their experience	3.78	1.104	75.52	7.569	0.000
9	There is a professional trainings for new employees which increase their experience and leadership skills	3.97	0.899	79.48	11.672	0.000
	<b>All items</b>	4.03	0.655	80.61	16.954	0.000

Critical value of t at df "115" and significance level 0.05 equal 1.98

#### **The fourth field: decision making**

To answer this question we use a one sample t test for the opinion of the respondent about decision making and the results shown in Table No. (3.20) where the highest two items according to the weight mean as follows:

1. In item No. (1) the weight mean equal "85.52%" and p-value equal "0.000" which is less than 0.05, that means (Efficient assistants helps in taking a quick decision during war).
2. In item No. (8) the weight mean equal "84.83%" and p-value equal "0.000" which is less than 0.05, that means (Emergency situations need quick decisions).

And the lowest two items according to the weight mean as follows:

1. In item No. (10) the weight mean equal "79.83%" and p-value equal "0.000" which is less than 0.05, that means (The organization is working on enhancing leadership skills in decision making for ambulance workers during wars).
2. In item No. (7) the weight mean equal "77.41%" and p-value equal "0.000" which is less than 0.05, that means (There is affright from banishment when the decision is wrong).

For general the results for all items of the field (decision making) show that the average mean equal 4.08 and the weight mean equal 81.67% which is greater than "60%" and the value of t test equal 18.809 which is greater than the critical value which is equal 1.98 and the p- value equal 0.000 which is less than 0.05, means that the decision must be studied and analyzed before taken, and the organization is working on enhancing leadership skills in decision making for ambulance workers during wars at significance level  $\alpha \leq 0.05$ .

The results are agreed with the following studies:

Savage, 1972, concluded that the decision that leads to the decision maker obtaining optimal benefit is usually considered as the best alternative and should be chosen. If there is uncertainty as to the results of a decision, the probabilities for different types of result must be calculated and the decision based on the anticipated benefits of the alternatives which leads leader to a success leadership.

Brehmer, 1990, founded that the decision maker must consequently find a strategy that not only controls the task but also the work situation to have a good leadership results.

**Table(3.21): Decision making**

No.	Items	Mean	standard deviation	Weight mean	t-value	P-value
1	Efficient assistants helps in taking a quick decision during war	4.28	0.890	85.52	15.433	0.000
2	Management delegates employees to take decisions in emergency situations	4.02	0.813	80.34	13.480	0.000
3	Employees are updated continuously about work requirements	4.14	0.884	82.76	13.870	0.000
4	I have the ability to analyze the problem and then take the decision	4.05	0.767	81.03	14.764	0.000
5	The decision must be studied and analyzed before taken	4.04	0.908	80.86	12.375	0.000
6	You depend on your practical experience to take the decision	4.11	0.789	82.24	15.185	0.000

No.	Items	Mean	standard deviation	Weight mean	t-value	P-value
7	There is affright from banishment when the decision is wrong	3.87	0.909	77.41	10.314	0.000
8	Emergency situations need quick decisions	4.24	0.830	84.83	16.107	0.000
9	There is a consultation between the team before taking the decision in emergency situations	4.09	0.942	81.90	12.523	0.000
10	The organization is working on enhancing leadership skills in decision making for ambulance workers during wars	3.99	1.067	79.83	10.005	0.000
	<b>All items</b>	4.08	0.621	81.67	18.809	0.000

Critical value of t at df "115" and significance level 0.05 equal 1.98

**☒ All fields (concern to independent variables)**

To answer this question we use a one sample t test for the opinion of the respondent about all sections about " leadership under the pressure and the complexities of the rescue operations at the emergency departments of medical services in Red Crescent " and the results shown in Table No. (4.6) which show that the average mean for all sections concern to the independent variable equal 4.04 and the weight mean equal 80.81% which is greater than " 60%" and the value of t test equal 20.313 which is greater than the critical value which is equal 1.98 and the p- value equal 0.000 which is less than 0.05, that means leadership under the pressure and the complexities of the rescue operations at the emergency departments of medical services in Red Crescent work well at significance level  $\alpha \leq 0.05$

This results prove that employees in EMS departments in PRCS have a good leadership skills which is something good

**Table (3.22): All fields (Concern to independent variables)**

No.	Field	Mean	standard deviation	Weight mean	t-value	P-value
1	Stress	3.94	0.566	78.79	17.886	0.000
2	Teamwork	4.10	0.620	82.04	19.135	0.000
3	leaders experience	4.03	0.655	80.61	16.954	0.000
4	decision making	4.08	0.621	81.67	18.809	0.000
	<b>All fields</b>	4.04	0.552	80.81	20.313	0.000

Critical value of t at df "115" and significance level 0.05 equal 1.98

**The fifth field: ability of leadership to deal with stressful complex rescue operations.**

To answer this question we use a one sample t test for the opinion of the respondent about ability of leadership to deal with stressful complex rescue operations and the results shown in Table No. (4.7) where the highest two items according to the weight mean as follows:

1. In item No. (4) the weight mean equal " 88.97%" and p-value equal " 0.000" which is less than 0.05, that means (Quick and wise decisions during wars enhancing the role of the leader).
2. In item No. (5) the weight mean equal " 87.07%" and p-value equal " 0.000" which is less than 0.05, that means (Good leader works effectively within the team during wars).

And the lowest two items according to the weight mean as follows:

1. In item No. (7) the weight mean equal " 82.93%" and p-value equal " 0.000" which is less than 0.05, that means (The ability to lead complex rescue operations is attached to leader experience).
2. In item No. (2) the weight mean equal " 81.90%" and p-value equal " 0.000" which is less than 0.05, that means (The leader has the ability to control the stress from complex operations).

For general the results for all items of the field (ability of leadership to deal with stressful complex rescue operations ) show that the average mean equal 4.27 and the weight mean equal 85.34 % which is greater than " 60%" and the value of t test equal 18.901 which is greater than the critical value which is equal 1.98 and the p- value equal 0.000 which is less than 0.05, means that The leader has the ability to control the stress from complex operations , and Quick and wise decisions during wars enhancing the role of the leader at significance level  $\alpha \leq 0.05$

This results are logical one according to the characteristics of leaders.

**Table (3.23): Ability of leadership to deal with stressful complex rescue operations**

No.	Items	Mean	standard deviation	Weight mean	t-value	P-value
1	Having a leadership skills reduce the stress over employee during wars	4.26	0.866	85.17	15.654	0.000
2	The leader has the ability to control the stress from complex operations	4.09	0.844	81.90	13.968	0.000
3	Take the right decision is one of the successful Characters of the leader	4.34	0.943	86.90	15.364	0.000
4	Quick and wise decisions during wars enhancing the role of the leader	4.45	0.726	88.97	21.472	0.000
5	Good leader works effectively within the team during wars	4.35	0.847	87.07	17.210	0.000
6	Distributing tasks among the team is the character of leader	4.28	0.881	85.52	15.605	0.000
7	The ability to lead complex rescue operations is attached to leader experience	4.15	0.877	82.93	14.076	0.000
8	Leadership skills increased according to the increase of employee's practical experience	4.22	0.931	84.31	14.066	0.000
	<b>All items</b>	4.27	0.722	85.34	18.901	0.000

Critical value of t at df "115" and significance level 0.05 equal 1.98



**Chapter Four**  
**Data Analysis and**  
**Discussion**

## Chapter Four

### Data Analysis and Discussion

#### 4.1 The Research Hypotheses:

Regarding the factors affecting leadership in stressful, complex rescue operations at EMS departments, the researcher assuming several hypotheses will be based upon the study:

- 1. There is a statistically significant effect at ( $\alpha \leq 0.05$ ) of stress on dealing with rescue operations.**

We use Pearson correlation test to test the significant effectness of stress on dealing with rescue operations at significance level  $\alpha \leq 0.05$  and the results shown in table No.(4.8) which show that the Pearson correlation coefficient equal 0.625 which is greater than critical value =0.185 , and p-value equal 0.000 which is less than 0.05, mean that there is a statistically significant effect of stress on dealing with rescue operations at significance level  $\alpha \leq 0.05$ .

**Table (4.1): The effect of stress on dealing with rescue operations**

Section	Statistic	rescue operations
Stress	Pearson Correlation	0.625
	P-value	0.000
	N	116

- 2. There is a statistically significant effect at ( $\alpha \leq 0.05$ ) of teamwork on dealing with rescue operations.**

We use Times New Roman Pearson correlation test to test the significant effectness of teamwork on dealing with rescue operations at significance level  $\alpha \leq 0.05$  and the results shown in table No.(4.2) which show that the Pearson correlation coefficient equal 0.706 which is greater than critical value =0.185 , and p-value equal 0.000 which is less than 0.05, mean that there is a statistically significant effect of teamwork on dealing with rescue operations at significance level  $\alpha \leq 0.05$ .

**Table (4.2):The effect of teamwork on dealing with rescue operations**

Section	Statistic	rescue operations
Teamwork	Pearson Correlation	0.706
	P-value	0.000
	N	116

**3. There is a statistically significant effect at ( $\alpha \leq 0.05$ ) of leader's experience on dealing with rescue operations.**

We use Pearson correlation test to test the significant effectness of leader's experience on dealing with rescue operations at significance level  $\alpha \leq 0.05$  and the results shown in table No.(4.3) which show that the Pearson correlation coefficient equal 0.641 which is greater than critical value =0.185, and p-value equal 0.000 which is less than 0.05, mean that there is a statistically significant effect of leader's experience on dealing with rescue operations at significance level  $\alpha \leq 0.05$ .

**Table (4.3): The effect of leader's experience on dealing with rescue operations**

Section	Statistic	rescue operations
leader's experience	Pearson Correlation	0.641
	P-value	0.000
	N	116

**4. There is a statistically significant effect at ( $\alpha \leq 0.05$ ) of decision making on dealing with rescue operations.**

We use Pearson correlation test to test the significant effectness of decision making on dealing with rescue operations at significance level  $\alpha \leq 0.05$  and the results shown in table No.(4.4) which show that the Pearson correlation coefficient equal 0.757 which is greater than critical value =0.185, and p-value equal 0.000 which is less than 0.05, mean that there is a statistically significant effect of decision making on dealing with rescue operations at significance level  $\alpha \leq 0.05$ .

**Table (4.4)The effect of decision making on dealing with rescue operations**

Section	Statistic	rescue operations
Decision making	Pearson Correlation	0.757
	P-value	0.000
	N	116

**5. There is a statistically significant differences attributed to the personal information of the respondents at the level of  $\alpha \leq 0.05$  about the Leadership under the pressure and the complexities of the rescue operations at the emergency departments of medical services in Red Crescent**

And this hypothesis divided into sub-hypotheses as follows:

**5.1-**There is a statistically significant differences at the level of  $\alpha \leq 0.05$  about the Leadership under the pressure and the complexities of the rescue operations at the emergency departments of medical services in Red Crescent due to gender.

To test the hypothesis we use the Independent Samples T test and the result illustrated in table no.(4.5) which show that the p-value equal 0.438 which is greater than 0.05 and the absolute value of T test equal 0.778 which is less than the critical value which is equal 1.98 , mean that there is no statistically significant differences at the level of  $\alpha \leq 0.05$  about the Leadership under the pressure and the complexities of the rescue operations at the emergency departments of medical services in Red Crescent due to gender.

That's because the majority of employees in EMS department in PRCS are males, and less than 10% are females which is something related to our culture.

**Table (4.5): Independent Samples Test for differences about the impact of corporate social responsibility on banking brand image in Gaza Strip refer to gender**

Field	gender	N	Mean	Std. Deviation	T	P-value
Stress	Male	108	3.921	0.573	-1.288	0.200
	Female	8	4.188	0.398		
Teamwork	Male	108	4.097	0.622	-0.323	0.747
	Female	8	4.170	0.627		
leaders experience	Male	108	4.013	0.665	-1.045	0.298
	Female	8	4.264	0.460		
decision making	Male	108	4.077	0.622	-0.430	0.668
	Female	8	4.175	0.632		
ability of leadership to deal with stressful complex rescue operations	Male	108	4.259	0.733	-0.436	0.664
	Female	8	4.375	0.582		
All fields	Male	108	4.068	0.561	-0.778	0.438
	Female	8	4.227	0.503		

Critical value of t at df "113" and significance level 0.05 equal 1.98

**5.2-**There is a statistically significant differences at the level of  $\alpha \leq 0.05$  about the Leadership under the pressure and the complexities of the rescue operations at the emergency departments of medical services in Red Crescent due to age.

To test the hypothesis we use the one way ANOVA test and the result illustrated in table no.(4.6) which show that the p-value equal 0.410 which is greater than 0.05 , and the value of Fstat = 0.969 which is less than Fcritical = 2.67 , means that there is no statistically significant differences at the level of  $\alpha \leq 0.05$  about the leadership under the pressure and the complexities of the rescue operations at the emergency departments of medical services in Red Crescent due to age.

That's because the majority of EMS employees are in the same age (more or less) which is from 30 – 50 years.

**Table (4.6): One way ANOVA test for differences about the leadership under the pressure and the complexities of the rescue operations due to age refer to age**

Field	Source	Sum of Squares	df	Mean Square	F value	Sig.(P-Value)
Stress	Between Groups	1.175	3	0.392	1.231	0.302
	Within Groups	35.643	112	0.318		
	Total	36.818	115			
Teamwork	Between Groups	1.292	3	0.431	1.123	0.343
	Within Groups	42.942	112	0.383		
	Total	44.234	115			
leaders experience	Between Groups	1.728	3	0.576	1.356	0.260
	Within Groups	47.571	112	0.425		
	Total	49.298	115			
decision making	Between Groups	0.722	3	0.241	0.619	0.604
	Within Groups	43.557	112	0.389		
	Total	44.279	115			
ability of leadership to deal with stressful complex rescue operations	Between Groups	1.177	3	0.392	0.747	0.526
	Within Groups	58.789	112	0.525		
	Total	59.966	115			
All fields	Between Groups	0.903	3	0.301	0.969	0.410
	Within Groups	34.784	112	0.311		
	Total	35.687	115			

Critical value of F at df "3,112 " and significance level 0.05 equal 2.67

**5.3-**There is a statistically significant differences at the level of  $\alpha \leq 0.05$  about the Leadership under the pressure and the complexities of the rescue operations at the emergency departments of medical services in Red Crescent due to qualification .

To test the hypothesis we use the one way ANOVA test and the result illustrated in table no.(4.7) which show that the p-value equal 0.826 which is greater than 0.05 , and the value of Fstat = 0.191 which is less than Fcritical = 3.08, means that there is no statistically significant differences at the level of  $\alpha \leq 0.05$  about the leadership under the pressure and the complexities of the rescue operations at the emergency departments of medical services in Red Crescent due to qualification.

That's because the nature of work in EMS department is more practical than theoretical (sort of), for that qualifications will not have a statistically significant differences at the level of  $\alpha \leq 0.05$  with leadership in stressful, complex rescue operations.

**Table (4.7): One way ANOVA test for differences about the leadership under the pressure and the complexities of the rescue operations due to age refer to qualification**

Field	Source	Sum of Squares	df	Mean Square	F value	Sig.(P-Value)
Stress	Between Groups	0.318	2	0.159	0.492	0.613
	Within Groups	36.500	113	0.323		
	Total	36.818	115			
Teamwork	Between Groups	0.345	2	0.173	0.444	0.642
	Within Groups	43.889	113	0.388		
	Total	44.234	115			
leaders experience	Between Groups	0.128	2	0.064	0.147	0.864
	Within Groups	49.171	113	0.435		
	Total	49.298	115			
decision making	Between Groups	0.149	2	0.074	0.190	0.827
	Within Groups	44.130	113	0.391		
	Total	44.279	115			
ability of leadership to deal with stressful complex rescue operations	Between Groups	0.903	2	0.452	0.864	0.424
	Within Groups	59.062	113	0.523		
	Total	59.966	115			
All fields	Between Groups	0.120	2	0.060	0.191	0.826
	Within Groups	35.566	113	0.315		
	Total	35.687	115			

Critical value of F at df "2,113 " and significance level 0.05 equal 3.08

**5.4-**There is a statistically significant differences at the level of  $\alpha \leq 0.05$  about the Leadership under the pressure and the complexities of the rescue operations at the emergency departments of medical services in Red Crescent due to experience.

To test the hypothesis we use the one way ANOVA test and the result illustrated in table no.(4.8) which show that the p-value equal 0.646 which is greater than 0.05 , and the value of Fstat = 0.554 which is less than Fcritical = 2.67, means that there is no statistically significant differences at the level of  $\alpha \leq 0.05$  about the leadership under the pressure and the complexities of the rescue operations at the emergency departments of medical services in Red Crescent due to experience.

So that's results insure the main role of leaders experience, and leadership failure or successes is subjected to experience.

**Table (4.8): One way ANOVA test for differences about the leadership under the pressure and the complexities of the rescue operations due to age refer to experience**

Field	Source	Sum of Squares	df	Mean Square	F value	Sig.(P-Value)
Stress	Between Groups	0.251	3	0.084	0.256	0.857
	Within Groups	36.567	112	0.326		
	Total	36.818	115			
Teamwork	Between Groups	0.569	3	0.190	0.486	0.693
	Within Groups	43.665	112	0.390		
	Total	44.234	115			
leaders experience	Between Groups	0.492	3	0.164	0.376	0.770
	Within Groups	48.806	112	0.436		
	Total	49.298	115			
decision making	Between Groups	1.478	3	0.493	1.289	0.282
	Within Groups	42.801	112	0.382		
	Total	44.279	115			
ability of leadership to deal with stressful complex rescue operations	Between Groups	2.202	3	0.734	1.423	0.240
	Within Groups	57.764	112	0.516		
	Total	59.966	115			
All fields	Between Groups	0.522	3	0.174	0.554	0.646
	Within Groups	35.165	112	0.314		
	Total	35.687	115			

Critical value of F at df "3,112 " and significance level 0.05 equal 2.67

**5.5-**There is a statistically significant differences at the level of  $\alpha \leq 0.05$  about the Leadership under the pressure and the complexities of the rescue operations at the emergency departments of medical services in Red Crescent due to job title.

To test the hypothesis we use the one way ANOVA test and the result illustrated in table no.(4.9) which show that the p-value equal 0.438 which is greater than 0.05 , and the value of Fstat = 0.950 which is less than Fcritical = 2.45 , means that there is no statistically significant differences at the level of  $\alpha \leq 0.05$  about the leadership under the pressure and the complexities of the rescue operations at the emergency departments of medical services in Red Crescent due to job title.

**Table (4.9): One way ANOVA test for differences about the leadership under the pressure and the complexities of the rescue operations due to age refer to job title**

Field	Source	Sum of Squares	df	Mean Square	F value	Sig.(P-Value)
Stress	Between Groups	0.307	4	0.077	0.234	0.919
	Within Groups	36.510	111	0.329		
	Total	36.818	115			
Teamwork	Between Groups	1.017	4	0.254	0.653	0.626
	Within Groups	43.217	111	0.389		
	Total	44.234	115			
leaders experience	Between Groups	2.269	4	0.567	1.339	0.260
	Within Groups	47.029	111	0.424		
	Total	49.298	115			
decision making	Between Groups	1.717	4	0.429	1.119	0.351
	Within Groups	42.562	111	0.383		
	Total	44.279	115			
ability of leadership to deal with stressful complex rescue operations	Between Groups	2.688	4	0.672	1.302	0.274
	Within Groups	57.277	111	0.516		
	Total	59.966	115			
All fields	Between Groups	1.181	4	0.295	0.950	0.438
	Within Groups	34.506	111	0.311		
	Total	35.687	115			

Critical value of F at df "4,111 " and significance level 0.05 equal 2.45

**5.6-**There is a statistically significant differences at the level of  $\alpha \leq 0.05$  about the Leadership under the pressure and the complexities of the rescue operations at the emergency departments of medical services in Red Crescent due to region .



To test the hypothesis we use the one way ANOVA test and the result illustrated in table no.(4.10) which show that the p-value equal 0.000 which is less than 0.05 , and the value of Fstat =11.902 which is greater than Fcritical = 2.45, means that there is a statistically significant differences at the level of  $\alpha \leq 0.05$  about the leadership under the pressure and the complexities of the rescue operations at the emergency departments of medical services in Red Crescent due to region. And from scheffe test table No.( 4.10) show that there is difference between " Jabalia " , and " Gaza" and the difference in favor of " Gaza " ,and there is difference between " Jabalia " , and " Middle Area " in favor of " Middle Area " , and there is difference between " Jabalia " , and " KhanYonis " and the difference in favor of " KhanYonis " , and there is difference between " Jabalia " , and " Rafah " in favor of "Rafah "

That's May because jabalia station close to the most affected area during the last war (shjjaeia), and the employees were over stress.

**Table (4.10):One way ANOVA test for differences about the leadership under the pressure and the complexities of the rescue operations due to age refer to region**

Field	Source	Sum of Squares	df	Mean Square	F value	Sig.(P-Value)
Stress	Between Groups	5.476	4	1.369	4.849	0.001
	Within Groups	31.341	111	0.282		
	Total	36.818	115			
Teamwork	Between Groups	15.375	4	3.844	14.784	0.000
	Within Groups	28.859	111	0.260		
	Total	44.234	115			
leaders experience	Between Groups	11.342	4	2.835	8.292	0.000
	Within Groups	37.957	111	0.342		
	Total	49.298	115			
decision making	Between Groups	9.986	4	2.496	8.081	0.000
	Within Groups	34.293	111	0.309		
	Total	44.279	115			
ability of leadership to deal with stressful complex rescue operations	Between Groups	14.238	4	3.560	8.641	0.000
	Within Groups	45.727	111	0.412		
	Total	59.966	115			
All fields	Between Groups	10.712	4	2.678	11.902	0.000
	Within Groups	24.975	111	0.225		
	Total	35.687	115			

Critical value of F at df "4,111 " and significance level 0.05 equal 2.45

**Table (4.11):Scheffe test for Multiple Comparisons due to**

Mean Difference	Rafah	KhanYonis	Middle Area	Gaza	Jabalia
Rafah		0.016	0.080	0.314	0.829*
KhanYonis	-0.016		0.064	0.298	0.813*
Middle Area	-0.080	-0.064		0.234	0.750*
Gaza	-0.314	-0.298	-0.234		0.516*
Jabalia	-0.829*	-0.813*	-0.750*	-0.516*	

## 4.2 Multiple linear regressions

Multiple linear regression attempts to model the relationship between two or more explanatory variables and a response variable by fitting a linear equation to observed data. Every value of the independent variable  $x$  is associated with a value of the dependent variable  $y$ . The population regression line for  $p$  explanatory variables  $x_1, x_2, \dots, x_p$  is defined to be  $\mu_y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \dots + \beta_p x_p$ . This line describes how the mean response  $\mu_y$  changes with the explanatory variables. The observed values for  $y$  vary about their means  $\mu_y$  and are assumed to have the same standard deviation  $\sigma$ . The fitted values  $b_0, b_1, \dots, b_p$  estimate the parameters  $\beta_0, \beta_1, \dots, \beta_p$  of the population regression line.

Since the observed values for  $y$  vary about their means  $\mu_y$ , the multiple regression model includes a term for this variation. In words, the model is expressed as  $\text{DATA} = \text{FIT} + \text{RESIDUAL}$ , where the "FIT" term represents the expression  $\beta_0 + \beta_1 x_1 + \beta_2 x_2 + \dots + \beta_p x_p$ . The "RESIDUAL" term represents the deviations of the observed values  $y$  from their means  $\mu_y$ , which are normally distributed with mean 0 and variance  $\sigma$ . The notation for the model deviations is  $\mathcal{E}$ .

**Formally, the model for multiple linear regression, given  $n$  observations, is**

$$y_i = \beta_0 + \beta_1 x_{i1} + \beta_2 x_{i2} + \dots + \beta_p x_{ip} + \mathcal{E}_i \text{ for } i = 1, 2, \dots, n.$$

In the least-squares model, the best-fitting line for the observed data is calculated by minimizing the sum of the squares of the vertical deviations from each data point to the line (if a point lies on the fitted line exactly, then its vertical deviation is 0). Because the deviations are first squared, then summed, there are no cancellations between positive and negative values. The least-squares estimates  $b_0, b_1, \dots, b_p$  are usually computed by statistical software such SPSS Program.

Our model is multiple linear regression, since we consider  $Y :=$  ability of leadership to deal with stressful complex rescue operations as dependent variable (response variable), and  $x_1 :=$  Stress,  $x_2 :=$  Teamwork,  $x_3 :=$  leaders experience,  $x_4 :=$  decision making, as independent variable (explanatory variables) and the results in table No.(4.19) show that the value of F statistics = 45.549 and the p-value = 0.000 < 0.05, so the regression equation is good for predicting. And the significant variables are Stress Teamwork, and decision making since the t value = 2.338, 2.034 and 4.902 respectively, and the p-value = 0.021 < 0.05, 0.004 < 0.05 and 0.000 < 0.05 respectively, and the remaining independent variable are not significant. And the result show that the value of Adjusted R-squared = 0.608 that means the change in the response variables depend on the explanatory variable with percent 60.8%.

#### 4.3 The multiple linear regressions are:

Ability of leadership to deal with stressful complex rescue operations = 0.126 + 0.246 \* Stress + 0.283 \* Teamwork - 0.145 \* leaders experience + 0.635 \* decision making

**Table (4.12): Multiple regression analysis (Dependent Variable: ability of leadership to deal with stressful complex rescue operations)**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.126	0.321		0.392	0.696
Stress	0.246	0.105	0.193	2.338	0.021
Teamwork	0.283	0.139	0.243	2.034	0.044
leaders experience	-0.145	0.131	-0.131	-1.110	0.270
decision making	0.635	0.130	0.546	4.902	0.000

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	0.126	0.321		0.392	0.696
Stress	0.246	0.105	0.193	2.338	0.021
Teamwork	0.283	0.139	0.243	2.034	0.044
leaders experience	-0.145	0.131	-0.131	-1.110	0.270
decision making	0.635	0.130	0.546	4.902	0.000
F = 45.549		P-Value = 0.000		Adjusted R-squared = 0.608	

# **Chapter 5**

## **Conclusions and Recommendations**

## Chapter 5

### Conclusions and Recommendations

#### 5.1 Introduction

This chapter includes a summary of the most important results that have been reached by this study, as well as the recommendations proposed in the light of the results.

#### 5.2 Conclusions

The objectives of this study are to highlight the impact of leadership in stressful and complex rescue operations in EMS department in PRCS during the last three wars through:

- a. The examine of the impact of stress on leadership in rescue operations.

The results show that there is a statistically significant effect of stress on leadership in rescue operations and for that EMS department has to find a proper solution for stress release for the employees.

- b. The examine of the impact of teamwork on leadership in rescue operations. The results show that there is a statistically significant effect of teamwork on leadership in rescue operations.
- c. The examine of the impact of leaders experience on leadership in rescue operations. The results show that there is a statistically significant effect of leaders experience on leadership in rescue operations.
- d. The examine of the impact of decision making on leadership in rescue operations. The results show that there is a statistically significant effect of decision making on leadership in rescue operations.

### **5.3 Recommendations:**

Based on the results that have been reached, the researcher offers the following set of recommendations, wishing adoption of them, and these recommendations are:

#### **A. PRCS**

1. PRCS administration may pay attention to the training of the staff by conducting several training courses to the staff in order to enhance their leadership abilities.
2. PRCS might introduce changes and improvements to its rules, regulations and instructions in order to establish special programmes for the employees in terms of “stress release”.
3. Additional efforts should be exerted to build a trust, empowerment of the staff, participative decision-making approach, to enhance the attachment of staff, and desire, to remain and excel in their jobs. Development of new evaluation system, where it allows subordinate staff to participate in setting of the departmental objectives, recognizing and rewarding personal contributions, could be a good instrument of augmentation of the affective and normative commitment of staff members.
4. PRCS may invest and appreciate the internal experience of its staff members which led to enhance their commitment to the organization.
5. PRCS administration may go with team compatibility approach to insure a full cooperation within the team during stressful and complex rescue operations.

### **5.4 Future Research Directions:**

- 1- Future researches may extend to study the impact of leadership in other industries or in MOH.
- 2- Future researches can investigate the effects of leadership in more details and from different angles and include other variables that are not being used in this study.
- 3- Future researches can focus on particular types or sources of information and individuals working at particular levels within an organization.

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# Appendix





## الاستبانة: (1) Appendix

الجامعة الإسلامية - غزة  
عمادة الدراسات العليا  
كلية التجارة  
قسم ادارة الأعمال

طلب تعبئة استبانة

الأخوة والأخوات الكرام ..... السلام عليكم ورحمة الله وبركاته

أرجو التكرم بمنحي جزءاً من وقتكم للإجابة عن أسئلة هذه الاستبانة للوصول الي النتائج الحقيقية لبحث

رسالة ماجستير بعنوان:

"القيادة في ظل ضغط وتعقيدات عمليات الانقاذ في اقسام طوارئ الخدمات الطبية في الهلال الاحمر"

تهدف هذه الدراسة للتعرف إلى أهم العوامل التي تؤثر على المهارات القيادية خلال عمليات الانقاذ المعقدة

وخاصة حرب 2014، والمجتمع المستهدف في هذه الدراسة هو موظفي مراكز الاسعاف في جمعية الهلال الاحمر

الفلسطيني بفروعها الخمسة في قطاع غزة.

حيث تم التركيز على دراسة القيادة في ظل ضغط وتعقيدات عمليات الانقاذ من خلال اربعة عوامل وهي:

1. الضغط النفسي الناتج عن العمليات المعقدة.

2. العمل ضمن فريق .

3. الخبرة.

4. اتخاذ القرارات.

يرجى التكرم بالإجابة عن أسئلة الاستبانة بدقة وموضوعية لتسهلوا في إثراء الدراسة بخبراتكم وآرائكم،

علماً بأن جميع البيانات التي سيتم الحصول عليها من خلال الاستبانة لن تستخدم إلا لأغراض البحث العلمي.

ولكم منا جزيل الشكر على حسن تعاونكم

الباحث

علاء حسن رزق عاشور

جوال: 0599423036

أولاً: البيانات الشخصية:

1. الجنس:  ذكر  أنثي
2. العمر:  أقل من 30 سنة  من 30 أقل من 40 سنة  من 40 أقل من 50 سنة  50 سنة فأكثر
3. المؤهل العلمي:  دبلوم  بكالوريوس  ماجستير  دكتوراه  أخرى
4. سنوات الخبرة:  أقل من 5 سنوات  من 5 أقل من 10 سنوات  من 10 أقل من 15 سنة  15 سنة فأكثر
5. المسمى الوظيفي: رئيس المركز  نائب رئيس المركز  مسعف  سائق اسعاف  مسئول اشارة  اخرى
6. المحافظ  رفح  خانينوس  دير البلح  غزة  جباليا
7. الحروب التي شاركت في عمليات الاسعاف خلالها:  2008  2012  2014

ثانياً: فقرات الاستبانة:

الرجاء اختيار المقياس الذي يعبر عن رأيك كما هو مرفق :

#	البيان	أوافق بشدة	أوافق	معتدل	لا أوافق	لا أوافق بشدة
<b>المجال الأول: الضغط النفسي الناتج عن العمليات المعقدة</b>						
1	عدم وضوح تعليمات الادارة العليا للموظفين خلال عمليات الاسعاف اثناء الحروب تزيد من الضغط النفسي على الموظف.					
2	بامكان الطواقم الميدانية اخذ قرارات ميدانية دون الرجوع للادارة العليا خلال عمليات الاسعاف اثناء الحروب والتي تساهم في تقليل الضغط النفسي.					
3	الضغط النفسي على الادارة العليا اثناء الحروب ينعكس على الموظف ويقلل من الضغط النفسي الواقع عليه.					
4	الضغط النفسي اثناء الحروب يدفع الموظف لاتخاذ ردود افعال سريعة وغير محسوبة العواقب.					
5	التدريب بشكل دوري على التعامل مع العمليات المعقدة اثناء الحروب يقلل الضغط النفسي على الموظفين					
6	تعمل على تقليل الضغط النفسي الناتج عن ضغط العمل من خلال اتباع ارشادات طبية او نفسية معينة					
7	تقوم المؤسسة بعمل برامج خاصة للتقليل من الضغط النفسي الواقع على الموظفين اثناء الحروب					
8	هناك مراقبة ومتابعة من قبل الادارة للموظفين في حال تعرضهم لضغط نفسي شديد					
9	تعمل الادارة على ايجاد حلول مناسبة للموظفين الذين تعرضوا لضغوط نفسية شديدة					
10	التغذية العكسية والتفريغ النفسي عامل مهم في تخفيف الضغط الواقع على الموظف خلال الحروب					
<b>المجال الثاني: العمل ضمن فريق</b>						
11	يوجد تنسيق فعال بين العاملين في اقسام الاسعاف اثناء الحروب					

#	البيان	أوافق بشدة	أوافق	معتدل	لا أوافق	لا أوافق بشدة
12	العمل ضمن فريق يعزز المهارات القيادية للموظف					
13	الفريق الجيد والتعاون المتبادل يساهم في تخفيف الضغط النفسي					
14	التنسيق المسبق وتوزيع المهام على الفريق يعزز المهارات القيادية ويساعد في تحقيق الاهداف المرجوة لعمليات الانقاذ اثناء الحروب					
15	يمكنك التحدث بصراحة عن المشاكل التي تواجهك مع الفريق					
16	التزم بالمهام الموكلة الي ولا تدخل في مهام الاخرين للحفاظ على روح الفريق والوصول لافضل النتائج					
17	يوجد فريق دعم للمساندة في الحالات الطارئة كالحروب					
18	يمكنني التأقلم مع اي فريق عمل خلال الحروب اذا اقتضت الضرورة ذلك					
19	هناك الية للتواصل الفعال مع اعضاء الفريق لتبادل المعلومات وخاصة اثناء الحروب					
20	من المهم تبديل المهام بشكل دوري بين اعضاء الفريق ليصبح الموظف ملماً بمعظم الواجبات الموكلة لفريقه					
21	تدعم الادارة فريق العمل وتشجعهم بشكل مستمر وتساهم في تعزيز مهاراتهم القيادية					
<b>المجال الثالث : الخبرة</b>						
22	المهام الموكلة اليك اثناء الحروب تتوافق مع خبراتك و قدراتك القيادية					
23	اعمل دائما على تطوير قدراتي القيادية وخاصة القدرات اللازمة للتعامل مع عمليات الانقاذ خلال الحروب					
24	اساهم في تقديم مقترحات مهنية تساعد في تسهيل عمليات الاسعاف اثناء الحروب					
25	يتم الاخذ بالملاحظات والمدخلات التي اقوم بها من قبل الفريق والادارة					
26	تشجع الادارة العاملين في الاسعاف على تطوير قدراتهم القيادية					

#	البيان	أوافق بشدة	أوافق	معتدل	لا أوافق	لا أوافق بشدة
27	هناك دورات متخصصة في تنمية القدرات الفردية للعاملين في الاسعاف					
28	يتم عقد اجتماعات مع الموظفين الجدد او المتطوعين لتبادل الخبرات ضمن الفريق الواحد					
29	يتم اختيار الموظفين الجدد او المتطوعين بناء على خبراتهم السابقة					
30	هناك دورات تدريبية متخصصة للموظفين الجدد والتي تزيد من خبراتهم ومهاراتهم القيادية					
<b>المجال الرابع: اتخاذ القرارات</b>						
31	اختيار المساعدين الاكفاء يساعد في سرعة اتخاذ القرار في الظروف الطارئة					
32	هناك تفويض في اتخاذ القرار من قبل الادارة للعاملين في الاسعاف وخاصة في الحالات الطارئة					
33	يتم تزويد العاملين في الاسعاف بالمعلومات المتجددة عن طبيعة العمل ومتطلباته					
34	امتلاك القدرة على تحليل المشكلة لعناصرها الاولية وبالتالي اتخاذ القرار المناسب					
35	يتم دراسة القرار وتحليله قبل اتخاذه					
36	تعتمد على الخبرة العملية عند اتخاذه للقرار					
37	هناك خوف من العقوبات عندما يكون القرار غير صائب					
38	تتطلب الحالات الطارئة سرعة في اتخاذ القرار					
39	يتم التشاور من قبل اعضاء الفريق قبل اتخاذ القرار المهمة في الحالات الطارئة					
40	تعمل المؤسسة على تعزيز المهارات القيادية في اتخاذ القرار للعاملين في الاسعاف وخاصة اثناء الحروب					
<b>المجال الخامس : قدرة القيادة على التعامل مع العمليات المعقدة</b>						
41	التحلي بمهارات قيادية جيدة يقلل من الضغط النفسي الواقع على الموظف اثناء الحروب					

#	البيان	أوافق بشدة	أوافق	معتدل	لا أوافق	لا أوافق بشدة
42	يستطيع القائد التحكم في الضغط النفسي الواقع عليه من عمليات الاسعاف المعقدة					
43	اتخاذ القرار المناسب من صفات القائد الناجح					
44	القرارات السريعة والحكيمة في اثناء الحروب تعزز دور القائد					
45	القائد الجيد يعمل ضمن الفريق بشكل فعال وخاصة اثناء الحروب					
46	توزيع المهام على فريق العمل من سمات القائد الجيد					
47	القدرة على قيادة العمليات المعقدة ترتبط بشكل وثيق مع خبرة القائد					
48	تزيد المهارات القيادية بزيادة الخبرة العملية للموظف					

انتهى

**Appendix (2): Questionnaires in English**

No	Question	Strongly agree	Agree	neutral	disagree	Strongly disagree
<b>First dimension : Stress</b>						
1	Unclear instruction from top management during wars increases stress over employee					
2	Field staff has the authority to take decisions during complex situations which decrease the stress over them.					
3	Stress over top management during wars reflected over employees and decrease stress over them.					
4	During wars, stress push the employees to take quick reactions and Unintended consequences					
5	Regular training to deal with complex rescue operations during wars reduce the stress over employees					
6	You are minimizing the work stress by following medical or psychological instructions					
7	The organization is holding special programs to decrease stress over employees during wars					
8	There is a follow up from top management for the employees in case they were under a massive stress					
9	Management is seeking for a suitable solutions for employees when they are under stress					
10	Feedback and stress release are basic factors to minimize the stress during wars					
<b>Second dimension : Teamwork</b>						
11	There is an affective coordination among employees in emergency department during					

No	Question	Strongly agree	Agree	neutral	disagree	Strongly disagree
	wars					
12	Teamwork enhancing employee's leadership skills					
13	Good and cooperative team contributing in stress decreasing					
14	Pre coordination and distributing tasks among the team enhancing leadership skills and helping to achieve the objectives of rescue operations					
15	You can speak up loudly about team problems					
16	I obligate to my tasks and I don't interfere in others business to keep teamwork spirit					
17	There is a backup team for emergency situations like wars					
18	I can adapted with any team during wars as needed					
19	There is a mechanism for an effective communication to exchange information with the team during wars					
20	Task rotation is important for the employee to became familiar with the majority of team tasks					
21	Top management support teamwork and contributed in enhancing leadership skills for the team.					
<b>Dimension three : leaders experience</b>						
22	Your tasks during wars are equivalent with your experience and leadership skills					
23	I'm always trying to improve my leadership skills, especially the skills for dealing with rescue operations during wars					
24	I'm proposing a professional suggestions which help in facilitating rescue operations					



No	Question	Strongly agree	Agree	neutral	disagree	Strongly disagree
	during wars					
25	My interventions and notes are taken in team and top management considerations					
26	Management encourages employees in emergency departments to improve their leadership skills					
27	There is a professional trainings for improving leadership skills for emergency departments employees					
28	There is a regular meeting with new employees to exchange experiences within the team					
29	New employees are chosen according to their experience					
30	There is a professional trainings for new employees which increase their experience and leadership skills					
<b>Four dimension : decision making</b>						
31	Efficient assistants helps in taking a quick decision during war					
32	Management delegates employees to take decisions in emergency situations					
33	Employees are updated continuously about work requirements					
34	I have the ability to analyze the problem and then take the decision					
35	The decision must be studied and analyzed before taken					
36	You depend on your practical experience to take the decision					
37	There is affright from banishment when the decision is wrong					
38	Emergency situations need quick decisions					
39	There is a consultation between the team before taking the					

No	Question	Strongly agree	Agree	neutral	disagree	Strongly disagree
	decision in emergency situations					
40	The organization is working on enhancing leadership skills in decision making for ambulance workers during wars					
<b>Five dimension : ability of leadership to deal with stressful complex rescue operations</b>						
41	Having a leadership skills reduce the stress over employee during wars					
42	The leader has the ability to control the stress from complex operations					
43	Take the right decision is one of the successful Characters of the leader					
44	Quick and wise decisions during wars enhancing the role of the leader					
45	Good leader works effectively within the team during wars					
46	Distributing tasks among the team is the character of leader					
47	The ability to lead complex rescue operations is attached to leader experience					
48	Leadership skills increased according to the increase of employee's practical experience					

### Appendix (3): List of Reference's Names and Titles

	<b>Names of References</b>	<b>Titles of References</b>
1)	Dr. Samy Abo Al Roos	The Islamic University of Gaza
2)	Dr. Nafez Barkat	The Islamic University of Gaza
3)	Dr. Fares Moammer	The Islamic University of Gaza
4)	Eng Haytham El Attar	Program Manager- Welfare Association
5)	Eng. Hosam Bakeer	Protection Field Officer in ICRC
6)	Eng. Ashraf El Saadoni	Team leader of Economic Security Department in ICRC
7)	Mr. Atef al Saqqa	Protection Field Officer in ICRC