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## THE RELATIONSHIP BETWEEN MENTAL TOUGHNESS AND STRATEGIES FOR COPING WITH STRESS, AMONG CIVIL PROTECTION OFFICERS IN TIARET.

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### ABSTRACT

The current study sought to identify the relationship between the Mental Toughness and strategies for coping with stress, among the directorate of civil protection in Tiaret. In order to achieve the objectives of this study, the researchers applied the Mental Toughness of Brien & Brunet, (2008), and a scale of strategies of coping with professional pressure by Meziani (2007), on a sample of 100 civil protection officers. Results showed that the level of mental toughness is high among the civil protection officers and that they use the problem-centered strategy, and the existence of statistically significant correlation between mental toughness and stress coping strategy.

**Keywords:** Mental Toughness, coping strategies, professional stress, civil protection officers.

**Introduction:**

Researchers in psychology, including Baron & Greenberg (1990), were interested in studying organizational behaviour and managing human resources through the manifestations of individual differences represented in the ability to face work pressures (Meziani, 2007). These differences are due to toughness and centering on stressful situation. The personality traits of individuals are one of the determinants of differences that are reflected in behaviour and dealing with stressful events. From this perspective, we find that positive psychology is one of modern approaches that are concerned with searching for factors that help the individual to adapt appropriately to the pressures he is exposed to in his daily life, whether in family, work or society in general. Among scholars who have been interested in this positive aspect of personality, we find both Maddi & Koubassa, 1984, in America, who called it Mental toughness, and Delmas, 2000-2004, in Canada, and Boris & Cyrulink 1990, in France, they called it the psychological flexibility. Mental toughness of individuals is a feature of a strong personality and has positive characteristics to face stressful events such as commitment, control and challenge. These characteristics maintain psychological and physical health despite exposure to stress and pressures, as those with a high level of toughness are characterized by efficiency and the ability to use the available environmental and psychological resources to perceive and interpret stressful events and thus enjoy a high level of balance and compatibility to choose the appropriate strategy to relieve stress and maintain psychological control and physical integrity, which allows the individual to perform well despite the difficult physical conditions he faces in terms of severity of the stressful events. There is no doubt that the service professions based on providing assistance to others and linked to confrontation are professions classified among the highest pressure professions according to studies and occupational health reports, among which is the profession of nursing according to the studies of Leibigot, Lafont, 1985, Philippe Delmas, 2000, and police profession according to studies of Campbell, 1994, and others, and education in studies of Combez 1995 and Anaut 2005, on pressure among civil protection officers as auxiliary professions that include peculiarities that require effective strategies to cope with pressure as indicated by Lazarus, Folkman, 1984, and Fletscher, Cooper (1988). Lazarus classifies strategies for dealing with professional stress into several classifications related to personal characteristics. The solid personality uses flexibility to control stressful situations by focusing on the problem and trying to find solutions to face the pressure and alleviate it through cognitive evaluation and previous experiences (Lazarus, 1979). As for the non-solid personality, it depends on the negative behaviour represented in non-confrontation, which put it under constant pressure, resulting in psychological and physical disorders. Among the service professions, under current study, is the profession of civil protection officers, as the nature of their work implies difficulties and pressures resulting from the seriousness of the profession that may lead to death, on an ongoing basis during the operations of intervention, relief, protection of citizens and properties as a result of natural and humanitarian disasters, which requires high preparation of appropriate vigilance and adaptation that provides positive results. They are legally and morally bound to be vigilant, as they have to focus on the problem. Therefore, the problem of our study lies in knowing the level of mental toughness of the civil protection officers in the Algerian province of Tiaret and its relationship to efficient problem-centered strategies based on the Lazarus, Folkman, 1984 model in facing professional pressures.

**I- The Study Problem:** The civil protection profession is considered as one of the auxiliary professions that date back to the Roman era, where armed teams who fought forest fires were affiliated with the military apparatus, then its scope extended to the commercial side to protect goods, and with this, civil protection has become a regulatory body supporting the community. They can be called upon request at any time by official bodies and social organizations (Padioleau, 2002). Civil protection officers are the most requested individuals. Their role is to provide relief and assistance, just like other service jobs such as nursing, security, teaching, police, and the national gendarmerie. The nature of the civil protection aid's work is among the most important sources of pressure on a civil protection officer, considering assigning responsibility, and this is what makes his feature special for the cognitive, sensory, motor, and psychological preparations it requires through which he can resist the obstacles he faces such as helping people victims of accidents, human and natural disasters, and circumstances that lead to the death of the aid or the aided. These situations require from civil protection officers a strong personality and mental toughness in front of stressful situations, which makes coping strategies centered on the problem, and thus the current study is based on the interactive theory of Lazarus & Folkman, 1984 to reveal the mental health of civil protection officers based on the findings of several studies, including Romain, 2014, in the field of work medicine at the Military School of Val de Grace in Paris, on a sample of newly hired civil protection officers by subjecting them to a program of stress management over a period of six months and to reveal the efficiency of the program in the future, which estimated the performance of 87.15 % of the protection officers being a good performance mastering professional pressures management. According to Quick & all (1997), the efficient management of stress requires a preventive strategy aimed at focusing on a methodology that leads to avoiding health and psychological problems (Mascouche, 2004). This is intended to focus on the positive aspects of the personality that lead to a disciplined and controlled behaviour of the individual in order to maintain psychological and physical health, what psychologists call mental toughness, flexibility and endurance. Among the pioneering researchers in this positive aspect of cognitive behaviour we have Maddi and Koubassa (1984). Koubassa defines it as "a general belief of the individual in his efficiency and his abilities to use all available psychological and environmental resources in order to perceive events and interpret them efficiently and to cope with pressures positively" (Aouda, 2014). Civil protection officers, like other employees of the auxiliary professions, are bound to be able to respond quickly and adapt immediately to emergency events experienced around the clock. This is confirmed by (Ponnelle), citing (Didier Perrrot, 2011), that the environment of the civil protection officers is a hard one regarding psychological aspect, and any failure to perform tasks and face situations well constitute a danger. She also stressed the constant review of the civil protection officers' profile, as his position is particularly sensitive for his exposure to sudden and urgent stressful events. Among theory principles of the civil protection officers' professions is the concern for responsibility to ensure efficient control due to the characteristics of the profession; as it is a profession of permanent risks and exceptional obstacles, of tasks requiring moral values such as integrity, courage, altruism, rigor and flexibility. These values are ones of the basic conditions in selecting these officers. They are also included in the training and qualification programs for this category, as it falls within the framework of the applicable decrees and is inscribed in the law on civil protection being the

basic conditions for employment and qualification. We conclude from these ethical conditions that they express the personal toughness of the civil protection officers represented in emotional control, commitment and challenge towards stressful situations while performing tasks, which makes the sample's coping strategies centred on the problem and thus: to detect the level of mental toughness of the civil protection officers in the province of Tiaret and the strategies relied upon to face the pressures and to try to find a statistical significance linking the level of mental toughness to strategies for coping with professional pressure. This can be highlighted through the previous studies conducted by S. Koubassa & Maddi, 1984, as their study focused on mental toughness in dealing with stressful events in order to alleviate them and maintain psychological and physical integrity and the importance of the two-category theory of self-centred strategy and problem-centred strategy. Thus, based on the aforementioned, the study problem can be posed in a group of questions, which we include as follows:

- 1- What is the level of mental toughness of the civil protection officers in the province of Tiaret?
- 2- What are the strategies to confront the pressure used by the civil protection officers in the central directorate of the province of Tiaret, Algeria?
- 3- Is there a significant statistical correlation between mental toughness and stress coping strategies of the civil protection officers?

**II- The Study Importance:** The importance of this study lies in highlighting the topic itself through its theoretical, procedural and practical principles. As after meeting with officials and protection officers at the Civil Protection Directorate, we concluded the need to conduct in-depth studies to prepare a special profile for protection officers within the framework of analysing work and studying positions and intensifying training courses for psychological training to enable civil protection officers to adjust and control their tasks as a proactive preventive measure. Within the limits of our knowledge, we found a dearth of studies that are concerned with the civil protection apparatus in Algerian society, especially those that include research on mental toughness, its level, and the strategies used to face professional pressures, especially the paths that civil protection officers experienced while facing stressful conditions and critical situations in the deathful decade (1990-2000), and natural disasters such as the 2002 earthquake in the Algerian province of Boumerdes and the floods of Bab El-Oued in Algiers in 2000. Support was sent from all over the country through the formation of relief cells in addition to the daily relief interventions due to traffic accidents, which, according to the Algerian Civil Protection Services, resulted in 800 dead and 30,000 wounded in the first six months of 2018, and between 8 and 12 dead per day were recorded, in addition to the injuries as a result of household accidents (gas explosion, suicide attempts, and urgent illnesses). These events formed an emotional interaction that requires a confrontation that varies according to the personal structure of each individual and requires a high level of toughness and the use of efficient strategies to relieve psychological pressure, as the weaker is the level of mental toughness, the higher would be the level of professional pressure among the civil protection officers, and the coping strategy becomes inefficient. This is what prompted our research interests in this topic.

**III- The Study Objectives:** The objectives of the study lie in:

- 1- Knowing the level of toughness of the civil protection officers in Tiaret, Algeria.
- 2- Learn about the strategy used by the civil protection officers to face pressures
- 3- Exposing the relationship between mental toughness and stress coping strategy
- 4- Procedural definition of the study terms:

**1. Mental Toughness:** It is an adjective that expresses a number of personal characteristics of the civil protection officers that can be used during the performance of their tasks and relief interventions in the face of accidents and disasters appearing in their emotional balance and positive cognitive behaviour resulting from previous experiences through training, learning and previous events through what is indicated by the total score for the toughness scale of Brien & Brunet.

**2. Professional Pressures:** are the experiences and events that are characterized by the risks that the civil protection officers faced and the psychological and physical effects they left behind.

**3. Coping Strategies:** Through this study, there are the methods and means used by the civil protection officers in the face of professional pressures and their relationship to how to control emotional and cognitive behavior to maintain balance and mental and physical health.

#### **4. Theoretical Guidelines and Previous Studies:**

**1. Mental Toughness:** Koubassa (mentioned by AOUDA 2014) defines toughness as a general belief of the individual in his efficiency and his ability to use all available resources in order to perceive and understand stressful life events efficiently and realistically and coexist with them in a positive way. Toughness includes three dimensions: commitment, control and challenge, which we list as follows:

**A- Commitment:** It is a psychological contract to which the individual is committed to himself, his goals, and the individuals around him

**B- Control:** Defined by (Koubassa, 1984) as the individual's belief that changing life situations and circumstances to which he is exposed are predictable and controllable.

**C- Challenge:** According to (Koubassa, 1984), it is the individual's belief that the change in life is a natural thing that is necessary for the advancement of the individual.

**2. Occupational Pressures:** Lazarus (1984) (mentioned by EL AZIZ 2009 : 24) defines pressures as the result of an evaluation process by which an individual evaluates his own resources to know how efficiently they are to meet the requirements of the environment and the extent of proportionality between internal requirements and the external environment.

**3. Coping Strategies:** Lazarus and Folkman (1984) (cited by Al-Abdali, 2012) define coping strategies as efforts made by the individual to control and endure the internal and external requirements caused by stressful situations. According to Lazarus & Folkman (1984) there are two basic classifications for a coping strategy:

**A- The Strategy of Centering on Emotion (self):** occurs when the individual believes that the stressful situation is difficult and cannot be controlled or changed, and this behavior is either emotion, anxiety or other physical symptoms ... etc.

**B- Problem-Centering Strategy:** This method is used in situations in which an individual believes that with his positive attempt he can find a solution to the problem or alleviate his stress (Laurence, Martino, Malaise, 2004). Among the most important classifications of problem-centering strategy, we find those of Parker and Endler (Endler, Parker, 1990) (reported by Ben Zeroual, 2010: 270):

- \* Problem-centered strategies
- \* Emotion centered strategies
- \* Avoidance strategies
- \* Emotional coping strategies

**A- Previous Studies that dealt with Mental Toughness:**

The Koubassa study (1979) aimed to identify the psychological variables that help the individual to maintain his psychological and physical health despite being subjected to stress. The study sample consisted of 760 employees whose ages ranged from 40 to 49 years old with university degrees and under high level of stress. In this study, the researcher used questionnaires (Holmes and Rahi) for stressful events, Wheeler Diseases Questionnaire, Internal and External Control Scale, Disability Scale, Family, Work, and Community Alienation Scale and Challenge Scale. It also used a measure of activity versus laziness, a scale for cognitive building, survival and responsibility versus quit. Among the most important results of the study: People who are more tough are less sick, have a high level of achievement, and are able to control internal and external adjustment. The study also revealed that people with less toughness are more vulnerable to disease and disability.

Delmas (2000) study aimed to identify the relationship between toughness, coping strategies, and standard of living of nurses in Montreal, Canada, in the field of recovery, and another study on the mediating effect between coping strategies and dimensions of mental toughness using a framed and individual questionnaire on a sample of 173 nurses using the findings of Maddi & Koubassa studies and scale of Kenny & Baron (1986) to determine the impact of coping strategies, as the study confirmed that there is a positive evaluation of problem solving and that the nurses have a high level of commitment and control, which raised the standard of living of nurses in Montreal, Canada.

As for the study of Tahar Broud (2016), it sought to examine the level of mental toughness and cognitive confrontation methods most used by the scientific police in the security of the province of Biskra, in Algeria. The researcher relied in his study on four cases of security personnel whose years of service ranged from 9 to 13 years and their ages ranged from 35 to 45, chosen randomly, using the semi-oriented interview, Mekhimer's mental toughness scale and coping methods scale. The study concluded that the scientific police have a high level of mental toughness through their use of positive cognitive methods to face psychological stress. The hypothesis applied to three of the four cases where we recorded a decrease in the level of mental toughness in the face of stress in the fourth case.

The study of Khawla Boukerzaz (2015) sought to reveal the level of flexibility of police officers in resisting pressures in order to positively perform their tasks and whether this group finds it difficult to establish a work team and what is the impact of the deathful decade in Algeria on the psychological livelihood of police officers and what are the reasons for the adaptation of one group and the recession of another? The researcher relied on a case study using the event narrative interview, the PTSD scale, the post-traumatic stress scale and the stressful events in terms of severity and duration (CROCQ). The results of the study concluded that there is emotional and social maturity despite stressful events as well as enjoying self-confidence due to social interaction, family support and organizational loyalty, which led to adoption of positive coping strategies.

## **B- Studies Dealing with Strategies for Coping with Occupational Stress:**

The study of Zahra Chaaban (2011) aimed to know the study sample sensitivity towards stressful situations and how to develop mechanisms of resistance to daily difficulties between home and work. The sample was also compared to a similar sample in the French and American society, where this management is considered stressful and is reflected in the psychological and physical health of working women. The research sample consisted of 40 working women. In her study, the researcher used the coping scale C.I.S.S and the control center test for the first time adapted and adjusted in Algeria by Farahi Kabdani and Kouideri (2005) and the scale of I.P.A.H. The study concluded that the Algerian working woman is more likely to use strategies to confront pressure, followed by the French working woman in second place, and the American working woman in third place. The reason for this is that the Algerian working woman has reached the first level in her confrontation with difficulties of social life since her childhood, which has earned her the best in the coping strategies used.

The study of Melly & Philippe (2005) sought to assess impact of stressful events on the psychological and social well-being of civil protection officers and coping strategies. The study titled "Stress and Mental Health of the Civil Protection Officers in Paris" in cooperation with the Research Center for Military Health Services and the Mental Health Cell, through 1563 questionnaires handed over to 78 centers for samples. The study concluded that the effects of stress in this group translate into disease anxiety, and that the civil protection officers were using problem-centered strategies to overcome the state of anxiety and enjoy good health, as the results were estimated as follows: 25.90% use the problem-centered strategy to get rid of anxiety, and 10.50% use the self-centered strategy, as for emotion 50.45%, psychosocial risks were estimated at 0%, and 5.20% had psychological and social problems with a low level, and only 2.7% needed psychological and health evaluation.

As for Meziani Fatiha's study (2007), it sought to explore the level of police officers perception of the professional pressure that characterizes their profession, classified among the five most stressful occupations in the world, and the various strategies used for coping, based on Cooper model (1988) that included many strategies (task strategy, logic, social bond, home-work interactions, time and integration). The results concluded that the sample uses several strategies in the following order:

- The strategy of logic comes in the first order, and this is due to the peculiarity of this category represented in rational defense being effective in coping, and to the nature of the professional identity that is reflected in the personality of the civil protection officers.
- Use of various efficient strategies to avoid police officers psychological burnout. We relied in our study on Meziani Fatiha's study (2007) on police coping strategy according to Cooper's model for the convergence of the study sample considering that the civil protection and police are included within the assistant professions and the convergence of the cultural context considering the study was carried out in the same country – Algeria

**6- Research Hypotheses:** According to the research problematic and the results of the exploratory study, we formulated the following hypotheses:

The first hypothesis: the level of mental toughness of the civil protection officers in the province of Tiaret is a high level.



The second hypothesis: Focusing on the problem is the strategy used by the civil protection officers to face pressures.

The third hypothesis: There is a statistically significant correlation between mental toughness and stress coping strategies of the civil protection officers in the province of Tiaret, Algeria.

## **7- Methodological Procedures:**

### **7-1- Type and Method of Study:**

The current study adopted the descriptive and analytical method for its conformity with the objectives of the study.

### **7-2- The Study Population and Sample:**

Both researchers identified the study population in the civil protection officers of the Central Directorate of Civil Protection in the town of Tiaret, which consists of (315) employees, including (100) civil protection officers. It is one of the internal governorates in the west of the Algerian capital, and one of the peculiarities of this governorate is its exposure, in recent years, to climate extremism, which raised the burden tasks for the protection officers. As for the study sample, it was taken randomly from the civil protection officers in the central directorate of the town of Tiaret - Algeria, and it represented (100) protection officers.

### **A- Characteristics of the Study Sample:**

We relied on demographic variables in terms of gender and years of service exclusively by virtue of their employment in previous studies, among which is the study (Bukerzaz, 2015) in her study, which concluded that gender variables and years of service are two basic dimensions to control the level of psychological flexibility of the police officers in the face of professional pressures.

### **Gender:**

Social gender	Redundancy	Percentage
Male	43	86 %
Female	7	14 %
Total	50	100 %

**Table No. (1):** shows the gender of the civil protection officers in Tiaret Directorate.

The above table shows the distribution of the gender employed by the Civil Protection Directorate in the town of Tiaret, as the female group has a small percentage compared to males, due to the culture of the male Algerian society in its approach to professional field and the nature of the profession that females avoid.

Service years	1 to 5	6 to 10	11 to 15	16 to 20	Over 21	total
Sample	28	6	3	1	12	50
Percentage	56 %	12 %	6 %	2 %	24 %	11 %

**Table No. (2):** shows the years of service of the civil protection officers in Tiaret Directorate

The above table indicates that the members of the sample, whose seniority ranges from 1 to 5 years, represent the majority at a rate of 56%, which indicates renewal and rejuvenation in the active human resource in addition to the fact that the civil protection profession needs individuals with mental health and a strong physical structure.

## 8- The Study Tools:

1-We used Brien and Brunet's 2008 mental toughness scale, which consists of twenty items that contain three dimensions: the dimension of the feeling of efficiency that includes ten items, the dimension of growth that includes six items, and the dimension of optimism that includes seven items.

2-The scale of coping strategies for professional pressures, which was applied to a sample of police officers and officials prepared by Mezani Fatihah 2007, as we relied on the Cooper model and we used this scale to match it with the subject of this study as it was applied to a sample of

the same corps and the same regulatory ministry (Ministry of Interior and Local Authorities). Police and Civil Protection both belong to the auxiliary professions and are of the same sector. Even the civil protection officers and the police share the same profile.

### 9- Data Collection Method:

We carried out the field study through two stages:

The first stage: aimed to contact and identify the research acceptance extent by officials of the Civil Protection officials of the Directorate of Tiaret, where we conducted an interview with civil protection officials in the Directorate of Tiaret, and in particular the department of training and employees, as they are in charge of the placement of researchers. The aim of this stage was to explore the applicability of the subject of the study, to know the validity of the study tools, to reveal the level of response of the study sample to the research topic, with an indication of the importance of the proposals that the study produces for civil protection officers in the town of Tiaret.

The second stage of the field study: was the application of the research tool represented in two scales: the mental toughness scale and the coping strategy of occupational stress to ensure its validity and consistency and to ensure the validity of the hypotheses that were formulated in the study theory.

### 10- Psychometric Characteristics of the Study Tools:

#### A- The Consistency of the Mental Toughness Scale:

**Table (3):** The consistency of Alpha Cronbach and the bisection of the psychometric toughness scale for the sample of civil protection officers in Tiaret – Algeria.

Dimensions	Dimension of Alpha value	Scale of Alpha value	Spearman Brown
Efficiency	0.76	0.83	0.62
Growth	0.79		
Optimism	0.76		

The results of the previous table showed that the consistency of the three dimensions of the mental toughness scale according to Alpha Cronbach and the bisection of the scale as a whole has good psychometric properties that are suitable for application.

**B- Consistency using Bisection Method for Coping Strategies Scale**

**Table (4):** Consistency of the scale of coping strategy for professional pressures using bisection method

Gutman	Spearman Brown
0.61	0.51

The results of the above table showed that the consistency of the scale of coping strategies for psychological stress according to Gutman coefficient and bisection has good psychometric properties that are suitable for application.

**11- Presentation and Discussion of the Study Results:**

Presenting the results of the first hypothesis that stated that the level of mental toughness of the civil protection officers in the town of Tiaret is high.

**Table (5):** shows the arithmetic average to measure the level of toughness of the civil protection officers in Tiaret – Algeria.

Variable	Standard deviation	Default average	Arithmetic average
Mental toughness	06.67	74.62	57.5

It is evident from the above table that the level of mental toughness of the civil protection officers in the town of Tiaret is high, as the results showed that the arithmetic average is greater than the default average and accordingly the research hypothesis that says that the level of mental toughness is high among the civil protection officers in Tiaret according to the three dimensions of toughness: feeling of efficiency, growth and optimism as shown in Table (4):

**Table (6):** The percentages of alternatives to mental toughness scale items

Item N°	Items	Alternatives for mental toughness scale							
		Highly corresponding		Corresponding		Opposed		Highly opposed	
		Redundancy	Rate	Redundancy	Rate	Redundancy	Rate	Redundancy	Rate
1	Overcoming difficulties	29	58%	19	38%	2	4%	1	1%

2	Controlling situations & events development	16	32 %	31	62 %	3	6%	/	/
3	Perseverance in solving problems	23	46 %	24	48 %	2	4%	4	8%
4	Doubting my ability to handle the problem	6	12 %	14	28 %	13	26 %	13	26 %
5	Stick to the event to find a solution	14	28 %	33	66 %	1	2%	1	2%
6	Making sure I can handle the problem	14	28 %	28	56 %	2	4%	/	/
7	Looking for solutions to face the problem	24	48 %	24	48 %	2	4%	/	/
8	Participate in settling problems	14	28 %	33	66 %	3	6%	/	/
9	Don't let problems affect aspects of my life	15	30 %	26	52 %	5	10 %	/	/

10	Keep moving forward despite difficulties	19	38 %	27	54 %	4	8%	/	/
11	Upgrading as much capacity as possible	22	44 %	26	52 %	2	4%	/	/
12	Developing and acquiring new knowledges	19	38 %	28	56 %	3	6%	/	/
13	Show strong potential	23	46 %	24	48 %	3	6%	/	/
14	Developing new skills	16	32 %	31	62 %	3	6%	/	/
15	Coming back to face difficulties	15	30 %	31	62 %	3	6%	/	/
16	Focusing on positive side of problems	21	42 %	26	52 %	3	6%	/	/
17	See the experience gained through problem settlement and the benefits it brings	18	36 %	32	64 %	/	/	/	/

18	Considering difficulties in a positive light	16	32 %	32	64 %	2	4%	/	/
19	Considering the problem as a challenge	15	30 %	33	66 %	2	4%	/	/
20	Belief in having the capabilities enabling me to act on problems	23	46 %	25	50 %	2	4%	/	/
21	Considering problems as an opportunity to improve	15	30 %	33	66 %	2	4%	/	/
22	Believing in my ability to control the problem occurring	18	36 %	28	56 %	4	8%	/	/
23	Thinking of my ability to succeed instead to fail	20	40 %	28	56 %	2	4%		

According to the above table, we find items of efficiency dimension exceeding correspondence between research subjects by 90%, among which the first item 96%, second item 94%, fifth item 84%, tenth and thirteenth items by 92%, and the eleventh item 96%, and this is consistent with the orientation of the research hypothesis that says that the level of toughness of the research sample is high. For the twentieth item of the optimism dimension, 52% of the sample confirmed that they do not doubt their ability to overcome problems contrary to what Mekhaimar's study (2002) found, as he confirmed that those who have a low level of mental toughness have a weakness in facing events by relying on avoiding and fleeing stressful events, which affects their mental health. The same point proved by the study of (Phillipe Delmas; 2000) on the level of mental toughness of nurses and their ability to control and monitor solving stressful professional problems. As for the seventh and eighth items, their percentage of highly correspondence and correspondence was respectively estimated at 96% and 94%, which corresponds to the findings of studies of (Madi, Koubassa; 1984) regarding the individual's belief in his efficiency and his ability to use all available psychological and environmental resources in overcoming stressful events. In the same direction, Meziani Fatiha (2007) emphasized in her study that police officers use all available means and strategies to cope with the pressing professional problems. The correspondence rate for the thirteenth item was 92%, as these phrases indicated the high levels of challenge in facing risks among the research sample, and this supports the proof of the hypothesis of our study. As it is indicated by (Koubassa; Maddi, 1984) (Taylor 1996)) showing that it is of the characteristics of a solid personality to challenge and desire to change and cope for the sake of growth and development. And the fourteenth item, which estimated the correspondence rate at 94%, expresses the growth of the research sample among the civil protection officers of Tiaret Directorate, and this is what (Hulland all; 1987) and others found in their study as those with high toughness have low levels of shyness and anxiety which indicates they enjoy high level of awareness and growth. As for the seventeenth item, the sample correspondence rate was estimated at 90% and this is consistent with the study of Luthan; 1992, that the reactions of those with high toughness towards stressful situations constitute a buffer for them against negative effects and provide them with the benefit of maintaining their mental and physical health which helps them to reach growth and achievement. In the same context, Boukkerzaz (2015) emphasized in her study on what resilience represented in maintaining mental and physical health and social development among police personnel who were victims of the deathful decade in Algeria. The sixteenth item and twenty-third item, the correspondence rate of the research sample was estimated respectively at 94% and 96%, and this is consistent with the findings of the study (Koubassa; 1984) (Williams; 1992) (Lokner; 1998) who assert that those with high toughness have positive thinking. (Lokner; 1998) shows that high level of challenge to carry out tasks and the belief in changing facts leads to achievement motivation, as (Meriem Othman, 2010) concluded in her study that there is no relationship between professional pressures and achievement motivation of the civil protection officers in Biskra, Algeria, as despite high pressures, they still have motivation. Through the observation, it becomes clear that the civil protection officers have the characteristics of motivation from proactivity to carry out their tasks by simply announcing any information and gaining experience and training professionalism through training exercises that make them in a state of constant readiness and preparedness. Thus, we acknowledge the validity of the hypothesis of the current study.



Presentation of results of the second hypothesis: that stated that the strategies for coping with professional pressures, used by the civil protection officers, tend to focus on problems.

**Table (7):** shows the arithmetic average of detection of the coping strategy adopted by the civil protection officers in Tiaret – Algeria.

Variable	Standard deviation	Default average	Arithmetic average
Coping strategy with professional stress	13.14	106.86	78

The above table shows that the level of the coping strategy of professional pressures adopted by the members of the research sample (Civil Protection Officers of Tiaret Directorate) has a statistical significance through the real arithmetic average which is greater than the default arithmetic average, and thus the level of the strategy is positive, efficient and centered on the problem, which is confirmed by the percentages of the phrases listed in Table (7):

**Table (8)** the percentages of alternatives to the strategy scale terms

Item N°	Item	Alternatives to coping strategies with professional pressures									
		Often		Sometimes		Occasionally		Rarely		Very rarely	
		Redund.	%	Redund.	%	Redund.	%	Redund.	%	Redund.	%
1	Reorganize my work	21	42	19	38	7	14	3	6	/	/
2	Make advance plans	17	34	18	36	10	20	3	6	2	4
3	Use entertainment to avoid overthinking things	17	34	23	46	10	20	/	/	/	/

4	Setting priorities and solving problems as planned	20	40	20	40	10	20	/	/	/	/
5	Ga for some rules and procedures	18	36	24	48	8	16	/	/	/	/
6	Delegate	16	32	19	38	10	20	3	6	2	4
7	Trying to flee the situation	/	/	3	6	5	10	20	40	22	44
8	Look for social support and advice from superiors	10	20	19	38	9	18	5	10	7	14
9	Talk to friends who are kind and understanding	31	62	9	18	7	14	2	4	1	2
10	Maintain ongoing relationships with others	26	52	13	26	9	18	2	4	/	/
11	Looking for support as much as possible from those with home I'm related to	28	56	10	20	8	16	4	8	/	/
12	Make effort to cope	22	44	19	38	5	10	4	8	/	/

	objectively without getting too emotional										
13	Try to control my emotions and not looking stressed	20	4 0	15	3 0	11	2 2	1	2	3	6
14	Take some distance from the problem & think of a solution	30	6 0	15	3 0	4	8	/	/	1	2
15	Go to hobbies and pastimes	20	4 0	21	4 2	5	1 0	1	2	3	6
16	Go back to my family "the shelter"	26	5 0	10	2 0	13	2 6	2	4	/	/
17	After thinking, separate work from private life	20	4 0	26	5 2	4	8	/	/	/	/
18	Face the problem as arises	38	7 6	11	2 2	1	2	/	/	/	/
19	Efficient management of time	36	7 2	13	2 6	1	2	/	/	/	/
20	Make effort to slow down my lifestyle and behaviour	24	4 8	23	4 6	3	6	/	/	/	/

21	Make effort to know my limits	29	5 8	17	3 4	1	2	3	6	/	/
22	Looking for a way to make my job more important	28	5 6	16	3 2	2	4	1	2	3	6
23	Remain efficient	27	5 4	13	2 6	10	2 0	/	/	/	/
24	Don't hold back and unleash my energy	26	5 2	12	2 4	11	2 2	1	2	/	/
25	Focus on special problems only	30	6 0	10	2 0	9	1 8	1	2	/	/
26	Accept the situation and try to get used to it	6	1 2	6	1 2	8	1 6	26	5 2	4	8

According to the above table, the results of the study on the second hypothesis, saying that the strategy of coping with professional pressures applied by the civil protection officers in Tiaret Directorate is a problem-centered strategy, showed that the response of the sample to the phrases of the scale of the coping strategy was positive through the high percentages obtained: items (1,2,4,5) express freedom of decision-making regarding the task and the organization of work where the proportions of these items were as follows: for item 1, the percentage of satisfaction is estimated at 80% in both cases of Often and Sometimes, and this is what Lazarus confirmed in the process of primary and secondary evaluation of the stressful event resulting from work for efficient coping through effective decision-making and confirmed by (Karasek, 79) in his research on stress saying that freedom of decision-making in tasks and work reduces professional pressure. Consequently, the nature of the civil protection profession makes the individual make a decision while performing his duties. This is what we concluded through the interview with the sample members that they have the freedom to make decisions, which makes them comfortable psychologically because they focus on the problem and the decision they take to solve it. For item 4, satisfaction of the sample regarding this item was estimated at 80%,

which confirms that the civil protection officers in the directorate of Tiaret use the cognitive method to cope with pressures. This is what was confirmed by (Maddi, 99) in his research, that those with high mental toughness evaluate conditions positively, which was confirmed to us through interviews with the sample members, where they stated their use of the knowledge outcome resulting from the training courses and previous field experiences, which provide them with credit and qualifications for positive evaluation. For item 5, the sample satisfaction was estimated at 94%. This is confirmed by (Lazarus, 66) in his theory of primary and secondary cognitive evaluation subject to the following factors (the individual personality characteristics, intelligence, cultural level and the individual's assessment of his potentials) and confirmed by (Cooper et al; 88) in his model on task strategy. This is what we observed on the sample members during their interviews that they are from the young category and have a high educational and cultural level. This also indicates that mental toughness is one of the positive features that an individual acquires and develops. Fatiha Meziani (2007) confirmed this in her study that police officers use the task strategy, which is an efficient strategy in facing and solving problems causing professional stress. Items (7,26), these two expressions express the coping strategy centered on (emotion), and this reflects the hypothesis of our research that the strategies of coping with professional pressure used by civil protection officers are centered on the problem and the ratios of the results confirm this. Item 7, the response refusing to use this strategy by the individuals of our research sample was estimated at 84%. This considered percentage rejected the negative inefficient coping strategy and this was confirmed by (Moors, 94; Lazarus, Folkman; 84, Fletcher; Moors; 94) in the classification of types of strategies through their models, considering avoidance and escape as characteristics of those with low mental toughness. Item 26 represents 60% for rejecting this ineffective behaviour as it is considered a self-efficiency-centered strategy, and this is inconsistent with professional ethics that require courage and boldness that express control and is one of the characteristics of mental toughness. (Didier Perrot; 2011) emphasized this in Sandrine Ponnelle "The civil protection task is not easy and any failure to perform the tasks is not permitted" Therefore, the ethics of the civil protection profession requires strength, courage, vigilance and speed in dealing. We find Jhonson; 199 (Fioudah, 2014) emphasizes the legal and ethical commitment that characterizes the paramilitary service professions, so we find that the strategy of avoidance is not allowed. For items (8,9,10,11), these items represented the reliance on the social bond strategy of the research sample, whose percentages were estimated as follows: item 8, estimated the satisfaction rate at 58%, item 9, estimated the satisfaction rate at 80%, item 10, the satisfaction rate for Occasionally was estimated at 78%. Item 11, the percentage of satisfaction is estimated at 76%. Through these results, we find that the sample was using the social bond strategy in addition to the problem-centered strategy, and this was confirmed by (Cooper; 1988) and others, (Fletcher, Suls; 1985) and (Schwitzer; 2002) (cited by Meziani, 2007). The absence of social bond leads to psychological pressure as the latter proved in its study that police officers were using several efficient strategies, including social bond strategy, as this was observed among the subjects of the research sample through reactions during their interrogation when conducting the field study and the percentages obtained through applying the coping strategy scale, as they emphasized that social bond reduces their anxiety and helps them rise again to continue their tasks and face stress and pressure. Boukerzaz (2015) confirmed in her study that social and family bonds give self-confidence which reduces professional pressures. Items (12, 13, 14), these items express the use of a logic strategy. Item 12, the percentage of this strategy

for Often was estimated at 82%, and this is what was observed on the sample members by looking at some files related to the professional path of some officers, this attempt was after convincing officials in the employees department, which showed us that the study sample members use logic strategy, and this is due to their basic education and training courses that encourage efficient behaviour based on scientific rational foundations. (Cooper; 1988) and (Fletcher, Suls; 1985) confirmed that in their classifications of coping strategies, including the strategy of logic, and (Fatiha Meziani, 2007) emphasized this in her study that police officers use the logic strategy for the sensitivity of the position that requires rational behaviour. As for item 13, the percentage of satisfaction was estimated at 60%, between Often and Sometimes, confirming that the sample members use the controlled-positive-emotion-centered strategy. This is what was confirmed by (Zahra Chaaban in 2011) in her study on the extent to which the working woman in Algerian society applies the strategy of the control center, and this is based on what was brought by (Lazaus and Folkman; 1984) and confirmed by (Cooper; 1988) in his classification of the strategy of logic and (Fletcher, Suls; 1985) in vigilance strategy. Item 14, the satisfaction of this item was estimated at 90% between Often and Sometimes, and this is what (Lazarus, Folkman, 1984) and (Cohen, 1994) confirm in their interpretation of models of strategies facing rational thinking. It was confirmed by (Fatiha Meziani, 2007) in her study on the use of rational defense by police officers to cope with mental pressures. Items (15, 16 and 17) express hobbies and family support to alleviate work pressure. Item 15, the percentage of using this strategy was 82%, between Often to Sometimes, and this indicates that the research sample used the hobby and entertainment method to alleviate professional pressure. We noticed through questioning our research sample during the field study that their hobbies, especially sports, are reducing anxiety they suffer from. Item 16, the percentage of satisfaction of the research sample is estimated at 70%. They resort to taking this method to face professional pressures, as the study by (Cobbs, 1976) on (Meziani Fatiha 2007) confirmed that social and friendly support is part of organizational behaviour in order to raise the level of satisfaction, commitment and ability to resist. We also find (Leiter 1990) who concluded that family support is an important determinant of an individual's efficiency in his work. Whereas in item 17, the sample member' satisfaction was estimated at 92%, between Often and Sometimes. Individuals of the sample separate between private life and work, and this was confirmed by (Cooper, Moors, 1996) that pressures affect the individual in his family environment if it is professional and affect him in his professional environment. Therefore, they use the separation strategy to avoid this stress. Items (18, 19, 20), represent the time strategy. Item 18 represented the percentage of use of time strategy by the research sample at 92% of Often as a response, which was confirmed by our observation and questioning of the civil protection officers of Tiaret, who responds quickly to their task requirements. The sample members stated, for example, "Time runs quickly during critical times, and we must organize it and know the first urgent interventions from those that require delay", and this worries them. To reduce time pressure, the sample members resort to organizing priorities according to the task requirements. As confirmed by (Fatiha Meziani's study, 2007) that the police show great interest in time strategy in making decisions and performing tasks due to the objectivity of the judgments they issue during the performance of their duties. Item 20 represents the time pressure of the research sample and their attempt to find efficient methods. The percentage of users of this strategy was estimated at 94%, as they stated that the time management strategy is one of the priorities of the civil protection profession, as they are obligated to take urgent decisions to remedy situations

and this is what (Delmas, 2004) confirmed. The strategy of time management and prioritization relieves the pressure of the nurses in the urgent service. As for items (21, 22, 23, 24, 25), which represent the integration strategy, it means that the individual matches his or her professional role, and this is an expression of job satisfaction, and this is an expression of job satisfaction, as the greater the satisfaction, the less professional pressure. This is confirmed by (Michel, 1994 and Marshall; 1994) and (Brawen, 1996) on Meziani Fatiha (2007), that the connection that arises between the individual and the task he performs keeps him away from the ambiguity of the role and thus from stress, anxiety and alienation. However, the results of the responses of our research sample were positive, as it was proven that the Civil Protection Officers in the Directorate of Tiaret have an integration and conformity with regard to their jobs, and this is why the satisfaction percentages for the item of this dimension were: item 21, the rate of its use, from Often to Sometimes, was estimated at 92%, indicating the percentage of appreciation for skills and their compatibility with the requirements of the profession. Item 22, the percentage of respondents who resort to this method of strategies is estimated at 82%, which indicates a positive behaviour represented in challenge and steadfastness in order to develop work by virtue of the characteristics of the protection officers of emotional and social maturity due to previous knowledge experience, educational level and legal commitment, and the moral imposed by professional ethics.

Presentation of the result of the third hypothesis: that there is a relationship between the level of toughness and problem-centered coping strategies with professional pressure.

Table (9) - The relationship between the level of toughness and coping strategies

Variables of statistical significance	Standard deviation	Arithmetic average	Pearson's value
Mental toughness	06.67	74.62	0.34*
Coping strategies	13.14	106.8	

By presenting the results of the above table, we acknowledge the validity of the research hypothesis that there is a statistically significant correlation between the level of mental toughness and strategies for coping with professional pressures by the civil protection officers in Tiaret, which is evidenced by the high level of toughness of the research sample whose focus increases on efficient strategies centered on problems of various kinds and this is what confirms the extent of the sample's use of the (Lazarus & Folkman, 1984) model, according to which the efficient strategy is that one centered on problem. This method is considered positive and efficient in terms of dealing with stress. It is often found among individuals with a solid personality that is characterized by commitment, control and challenge. In the same orientation, (Baroud, 2016) emphasized in his study on the level of mental toughness and its relationship to the positive cognitive methods that are most used by the scientific police with a high level of mental toughness. (Chaaban, 2011), confirmed that working women use the control center to control and face pressures. The Algerian women have a solid personality in general, and this is due to the difficult experiences they have gained from the culture of society. It also was confirmed by (Azam, 2009) that the nurses had mental toughness and a high degree of professional stress control. (Phillipe Delmas, 2000) concluded that Canadian nurses enjoy a

high level of commitment and emotional control, which led them to positive evaluation to solve stressful problems, where commitment and control are considered as solid personality traits.

### **Conclusion:**

Based on the findings, we can make sure that the civil protection officers in the Directorate of Tiaret have a high level of mental toughness, the reasons for which are due to the conditions and requirements of the position's profile and its sensitivity due to the ethics of the profession. It is also due to the educational level of the sample members which was the cause of awareness and acquisition of a kind of mental toughness, due to the cognitive aspect. This is indicated by the percentages of years of service, most of which were limited to between one and five years, and this indicates that the members of the sample are from the young, educated, ambitious group to achieve a career path with a goal. Also, what led to the strengthening of the mental toughness of the sample were the continuous training and placements that made them use efficient strategies and methods to face the high professional pressures despite the diversity of strategies used by the sample, and they were all positive behaviour. This was demonstrated through the cognitive behaviours represented in developing prior plans and organizing the work by resorting to procedures, rules, previous experiences and scientific balance as a result of the intensive training the sample receives that leads to the use of the logical method based on control and thinking in finding solutions to pressing problems without surrendering before the stressful situations that often leads to negative behaviour centered on emotion. The sample members used social and family support strategies that give them self-confidence and readiness to face pressures and effective time management as it is important and among the priorities of the civil protection profession to maintain balance by reducing the pace of work that is characterized by rapid intervention and more importantly, the integration that was evident among individuals of the sample, which is one of the efficient strategies as it indicates job satisfaction that creates harmony and congruence between the individual and his tasks, which leads to strive to improve the performance and challenge stressful events.

### **Recommendations:**

In the light of the study results, the researchers recommended several recommendations and proposals, the most important of which are:

- Guidance and orientation through training courses for civil protection officers in the directorate of Tiaret in order to urge them to continuously use positive strategies while coping with pressure
- Creating position of a psychologist in charge of work and organization, alongside the clinical specialist, to integrate the work from orienting and selecting the right people for positions on the part of the specialist in work and organization, and to orientation to treatment in the event



of disturbances on individuals and stress resulting from trauma on the part of the specialist in clinical psychology

- Intensifying psychological studies on auxiliary professions such as civil protection, which is witnessing a scarcity in Arab researches

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