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ՊԱՏԵՐԱԶՄՈՒՄ ՀԱՅՐԵՐ ԿՈՐՅՐԱԾ ԱՆՁԱՆՑ ՀՈԳԵԲԱՆԱԿԱՆ ԵՎ  
ՀՈԳԵՖԻԶԻՈԼՈԳԻԱԿԱՆ ԲՆՈՒԹԱԳՐԵՐԻ ՎԱՐՔԱԳԾԱՅԻՆ  
ՓՈՓՈԽՈՒԹՅՈՒՆՆԵՐԻ ՈՒՍՈՒՄՆԱՍԻՐՈՒԹՅՈՒՆԸ

Գ.00.09 – «Մարդու և կենդանիների ֆիզիոլոգիա» մասնագիտությամբ  
կենսաբանական գիտությունների թեկնածուի զիտական աստիճանի հայցման  
ատենախոսության

**ՍԵՂՄԱԳԻՐ**

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NATIONAL ACADEMY OF SCIENCES OF THE REPUBLIC OF ARMENIA  
L.A. ORBELI INSTITUTE OF PHYSIOLOGY

MAHNESA KARIMITALEGHANI

STUDY OF PSYCHOLOGICAL AND PSYCHOPHYSIOLOGICAL  
CHARACTERISTICS OF BEHAVIORAL CHANGES IN PERSONS  
WHO HAVE LOST THEIR FATHERS IN THE WAR

**SYNOPSIS**

of dissertation for the Degree of Doctor of Philosophy (Ph.D.) in Biology  
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Ատենախոսության թեման հաստատվել է ՀՀ ԳԱԱ Լ.Ա. Օրբելու անվան Ֆիզիոլոգիայի ինստիտուտի գիտական խորհրդում:

Գիտական ղեկավար՝ կ.գ.դ., պրոֆեսոր Վ.Հ. Սարգսյան

Պաշտոնական ընդդիմախոսներ՝ կ.գ.դ., պրոֆեսոր Ջ.Ս. Սարգսյան  
կ.գ.թ. Է.Ա. Ավետիսյան

Առաջատար կազմակերպություն՝ Հայաստանի ազգային ագրարային համալսարան

Ատենախոսության պաշտպանությունը կայանալու է 2014թ մայիսի 7-ին ժամը 14<sup>00</sup>-ին ՀՀ ԳԱԱ Լ.Ա. Օրբելու անվան ֆիզիոլոգիայի ինստիտուտում, Փորձարարական կենսաբանության 042 մասնագիտական խորհրդի նիստում (0028, Երևան, Օրբելի եղբ. փող. 22):

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Գ.Մ. Սկրտչյան

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The topic of the thesis was approved at the meeting of the Scientific Council of L.A. Orbeli Institute of Physiology NAS RA.

Scientific supervisor: D.Sc., Professor V.H. Sarkisian

Official opponents: D.Sc., Professor J.S. Sarkissyan  
Ph.D. E.A. Avetisyan

Leading organization: National Agrarian University of Armenia

The defense of the thesis will be held on May 7, 2014 at 14:00 at the meeting of the Specialized Council of Experimental Biology 042 in L.A. Orbeli Institute of Physiology NAS RA (22 Orbeli Br. St., 0028, Yerevan).

The thesis is available in the library of L.A. Orbeli Institute of Physiology NAS RA, and on the [www.molbiol.sci.am](http://www.molbiol.sci.am) website.

The synopsis was disseminated on April 7, 2014.

Scientific Secretary of the Specialized Council 042,  
Ph.D.

G.M. Mkrtchyan



## GENERAL DESCRIPTION OF THE WORK

**Relevance of the work:** Each society requires healthy people, both physically and mentally, to grow and improve in all social, economic, cultural aspects, etc. According to the fact that today's youth are the immediate owners of the future, their health and disorders can significantly affect future society and generations. Therefore, it is essential to pay more attention to mental and physical health of this group and attempt to prevent and treat their mental and behavioral disorders. Life in the modern world is too stressful. Several positive and negative stresses often affect the qualitative and quantitative aspects of people in lifetime. Physiologists consider stress as a physical response to stimuli and environmental changes. They believe that stress also is the result of different social and mental situations that create behavioral disorders in people.

Long-term exposure to severe negative stress causes important physiological and psychological changes, as well as instability in the body's internal environment. This imbalance in the body's internal environment leads to increased symptoms of certain diseases. One of the most fundamental factors affecting mental and psychological health is friendly parents in the family. Family is an institution that gives its members a sense of security and peace. For a long time family is considered as the most stable and effective factor for maintenance of the cultural characteristics and their transmission to future generations (Astore, McInahan, 1991, Bjarmason, 2000). Family balance is affected in case of problems in behavior or manner of a family member (Hammond, 1979). Father absence is considered as one of the variables affecting family members that children, especially young children are more vulnerable to it (Bakhshi., 1991, Adams. & Mylz. 1992).

War is a phenomenon that has an impact on social and family function and cause insecurity. War, as a severe stressor, is an event that has been imposed on us repeatedly during the history of Iran. Levy-Shiff and colleagues (1993) showed that basic theoretical paradigms and constructs are identified within the extant literature that may usefully contribute to comprehending the effect of war upon young children as well as the nature of personal, situational and familial moderating factors. The recent war of Iraq against Iran was the longest imposed war that its negative consequences should never be neglected. One of these negative side effects as well as psychological effects was on the children of martyrs. Loss of father during childhood causes irreversible damages to mental health of children (Park et al. 2002). Father absence is important in terms of impact on children personality, adjustment and mental health (Earls, 1990). Observations showed that children without father have problems of depression, aggression and anxiety. Since war martyrs are venerated and respected in our country (because they are sacrificed and died to defend the homeland), the physical and mental health of their children to obtain scientific and social status is considered too important.

**Purpose and objectives of the research:** The main objective of the present study was to investigate behavioral problems of subjects who lost their father in the war compared with ordinary persons. This research is aimed at providing a comprehensive review of the all psychological and physiological aspects in subjects of war martyrs such as their personality characteristics and behavioral disorders, quality of life, attention and memory in order to provide them with educational and therapeutic strategies for mental health. The following issues were considered:

- Study of the differences in *personal characteristics* between subjects who lost their father in the war and ordinary persons.
- Study of the differences in *behavioral characteristics* between subjects who lost their fathers in the war and ordinary persons.

- Study of the differences in *quality of life* between subjects who lost their fathers in the war and ordinary persons.
- Study of the differences in *attention function* between subjects who lost their father in the war and ordinary persons.
- Study of the differences in *mental functions (memory)* between subjects who lost their fathers in the war and ordinary persons.
- Is there any difference between *personality characteristics* of boys and girls who lost their fathers in the war?
- Is there any difference between *behavioral disorders* of boys and girls who lost their fathers in the war?
- Is there any difference between *quality of life* of boys and girls who lost their fathers in the war?
- Is there any difference between *memory* of boys and girls who lost their fathers in the war?
- Is there any differences between *degree of attention* of boys and girls who lost their fathers in the war?

**Scientific novelty and significance of the work:** Although there are some studies conducted in the field of the present study, there is no comprehensive study on all variables of physiological and psychological health, quality of life, attention and mental function (memory) simultaneously. The main objective of the present study was to investigate these variables in subjects who lost their fathers in the war compared with ordinary persons. New data of this study will help to obtain proper results on individuals' physiological and psychological functions. Moreover, some new methods developed in Orbeli Institute of Physiology, NAS of Armenia are used in this study to examine the general functions of the brain. This method was used for better and in depth investigation of normal processing and time processing of memory, attention and mental capacity in subjects who lost their fathers in war. On the other hand, results of this study can be useful to plan a training program for mental health of these people and prevention of the trauma.

An important point related to research subject is that how personality is formed. By psychological definition, personality consists of permanent characteristics, behavior modes and individual compatibility that makes a person distinguished from others and leads to the relationship between him and others in the environment. The important point in this study is environmental factors affecting the personality and behavioral characteristics of the people who lost their fathers in the war. Regarding environmental variables, some issues are raised (if appropriate) such as conditions before birth, life experiences during the first months of birth, family systems and relationships within the family, childhood experiences, age and educational institutions. Considering changes in the life structure, today we can observe researchers interest than ever before to father role and his absence in the family, as well as the effect of these changes leading to alterations in child development. Most of these studies have focused primarily on single parent (mother) role to raise children, but now it is necessary to focus on absence of father, his involvement and his presence.

Life quality is another important psychological factor which was studied in this work. Quality of life is sense of satisfaction or dissatisfaction about important aspects of life. It consists of emotional, psychological, social and economic fields (Chen, 2007). There is a significant and positive relationship between children quality of life and their self-esteem. It means that increased life quality leads to increased self-esteem (Nicholas et al., 2010). In this work for the first time was studied a number of behavioral disorders such as aggression,

hyperactivity, anxiety, depression, social maladjustment, anti-social behavior, attention deficit and memory disorders among people who lost their father in the war compared with ordinary persons.

The prevalence of behavioral disorders in the society, in general and in the families who suffered by the war, in particular, may have bad effects and consequences for future generations. Scientific research in the field of pathology and behavioral problems along with finding solutions to reduce the problems of these people may have positive effects on the society in particular and families of orphans (absence of father) in general. Therefore, implementation of research plan and use of research results related to the predicted goals is too important.

**Approbation of the work:** The core materials of this dissertation have been extensively discussed with the experts in the field and presented in several international scientific conferences, symposiums and meetings such as: Third International Conference of Neuroscience and Biological Psychiatry, September 22-24, Yerevan, Armenia, as well as laboratory seminars and meetings of the Academic Council of the L. Orbeli Institute of Physiology, NAS RA (Yerevan, 2010-2013).

**Publications:** The main results of the work are published in 5 scientific articles.

**The volume and the structure of the thesis:** The thesis is set out on the 120-pages, includes 23 tables and 4 figures, 4 diagrams, 2 schemes and consists of: table of content, the list of abbreviations, literature review, the experimental materials part, the results of the research, discussion, summary, conclusions and list of references. The chapter of the "Results" consists of 16 sections. Conclusion emphasizes shortly the main findings of the study. The list of cited literature based on 159 references.

## MATERIALS AND METHODS

**Method:** Regarding the subject matter, objectives, and hypotheses, the appropriate method is causal - comparative description. In this method, main variable is the students who have lost their fathers in the war.

***Review, experience and analysis of data are carried out by two statistical methods:***

*Part I:* is descriptive statistics of the data. In this part using one dimension tables and charts are more applicable. Percentage is also used to display the number of patients who were evaluated.

*Part II:* is analytical method. T-test and Mann-Whitney tests were used for the analysis of variance. For data analysis, SPSS software was used on all phases of the study.

**Research Population and Sample:** The statistical population of this research consisted of two groups of subjects: test group consisted of all students in the University of Golestan who have lost their fathers in the war. The control group consisted of all students at the University of Golestan who have father. Research sample consisted of 120 students (20 to 40 years old):

Group I: 60 students who have lost their fathers in the war (30 girls and 30 boys).

Group II: 60 students who have a father (30 girls and 30 boys).

**Research Tools:** In this study, five measuring tools are used to gather data including: SCL90 tests, to screen the quantify of behavioral problems, Eysenck Personality Questionnaire containing 57 questions (EPQ), quality of life questionnaire (Health Survey), SF-36 computerized test of short and long term memory and finally computerized test of attention ( Fig. 1).

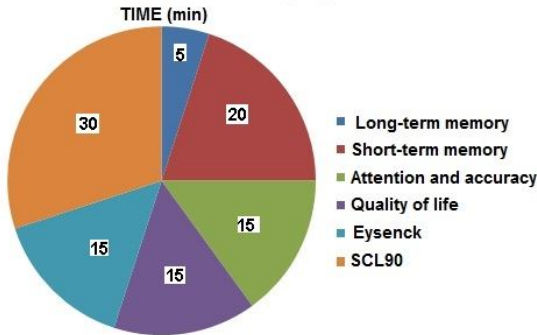


Fig. 1. The total run time for the tests is 100 minutes

**Test Content:** Content of tests consists of 9 different aspects, which include: 1) somatic 2) obsessive-compulsive 3) interpersonal relation sensitivity 4) Depression 5) Anxiety 6) Aggression 7) Phobia 8) paranoid thinking 9) psychotics.

▪ **Somatic Aspect (So):** In this aspect the individual perceives his/her own body's ill function. There are 12 questions related to this aspect.

▪ **Obsession – Compulsion Aspect (Oc):** Symptoms of this disorder have a high conformity with clinical symptoms of obsession. In this disorder a person focuses on thoughts, impulses, and functions which are unwanted. There are 10 questions related to this aspect.

▪ **Interpersonal Relation Sensitivity (Is):** Symptoms of this aspect are feeling of inadequacy, underestimating oneself, and feeling discomfort in communication with others. There are 9 questions related to this aspect.

▪ **Depression Aspect (Dp):** Symptoms of this aspect include depression, loss of interest in the pleasures of life, loss of energy and enthusiasm for life, a sense of helplessness and hopelessness, and other physical and cognitive aspects of depression. There are 13 questions related to this aspect.

▪ **Anxiety Aspect (An):** This aspect has signs and symptoms that are clinically associated with high levels of anxiety. Certain physical aspects of anxiety are also brought to this collection. There are 10 questions related to this aspect.

▪ **Aggression Aspect:** This disorder reflects thoughts, actions and feelings that are indicative of a rage induced negative mood state. There are 6 questions related to this aspect

▪ **Phobias Aspect (Ph):** This aspect includes symptoms such as irrational severe fear from a specific stimulus and thus avoidance of those special stimuli. There are 7 questions related to this aspect.

▪ **Paranoid Thoughts (Pa):** This aspect essentially proposes paranoid behaviors as a thinking disorder. There are 6 questions related to this aspect.

▪ **Psychoses (Ps):** This aspect includes gradual process of this disorder from a mild alienation to an acute psychosis. There are 17 questions related to this aspect.

**Eysenck Personality Questionnaire (EPQ) 57 Questions:** This questionnaire uses analysis method and is based on genetics of personality. It was made in 2005 by Eysenck H. and Eysenck M. The questionnaire has 57 clauses which evaluate 3 dimension or personality type.

**Social Acceptability (L):** Scale L evaluates lying or in a more accurate interpretation, it evaluates social acceptance (actually it evaluates susceptibility to social acceptability). There are four probabilities for those who have achieved high scores on this scale of Eysenck's

questionnaire: a) lying and denying undesirable behaviors, b) becoming like other people in the society, c) emotional immaturity, low vision, d) high honesty and integrity.

**Validity and Reliability:** This test successfully divided students with problems from normal student (it means that the test is valid). All questions also have content validity. 24 questions evaluate neurosis (neurotic tendency), other 24 questions evaluate introversion-extraversion tendencies, and 9 other questions evaluate the tendency to lie (social acceptability).

**Memory:** In this work, a computer based test is used which can specify the memory condition (long term and short term) within 10 to 12 minutes.

Tests are performed in 3 separate stages:

*Phase 1- Revealing the information forgetting speed of long-term memory (permanent).* A person who is under test should read randomly letters out loud, rapidly and error free, 20 voiced letters from native language. Tests are repeated 3 times (3 times silence), calculates the median value (reading duration), forgetting speed from long term memory of strengthened data is evaluated.

*Phase 2- Identifying the size and speed of remembered information.* The person under test is asked to remember whole the letters which have nothing in common with each other and must keep in mind by repeating them aloud after listening to computer. At this time, letters are abolished from monitor and start recording what testee is remembered. In this way the accuracy of remembered letters is controlled.

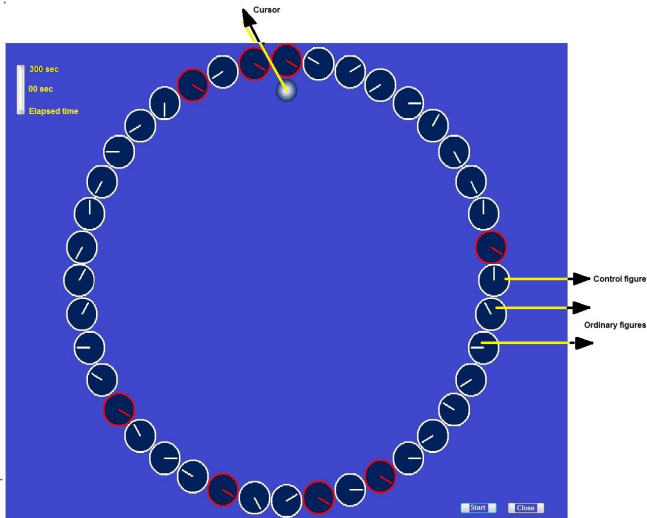
*Phase 3: To measure the long term memory.* The person under the test must answer 15 questions related to daily life, which needs long term memory. Answers will be marked by 4 scales. If the score is 7 and lower in this case it is observed that the testee has no problem in memory.

**Attention:** To study the processes of attention and mental performance was used the computer test «Clocks carousel", which is part of a package of psycho-physical "Psycho-physical test battery. Vigilance Research ", developed at the Institute of Physiology, NAS RA (Gevorgyan 2004, 2009).

The test was carried out once with duration of 10 minutes. There was used the version of "prediction capabilities of action" in the operating mode "Basic". Before testing, the subjects were asked, looking at all the figures (Ordinary and Control), located in one circle on the monitor screen, as quickly as possible and accurately by cursor to mark the control figures, which were set by the experimenter. The figures were presented in the form of rings with only one dial clockwise to indicate the "time" (all except 3, 6, 9, and 12 hours). While testing was given two control figures: the figure with the hand pointing to "time" 5 and 10. The circle consisted of 6 dominoes, each domino contained 5 pieces. The sequence of exposure changed automatically within a specified time (Fig. 2).

The program, considering all the viewed correctly and incorrectly marked, and dealt with the following parameters: the number of analyzed pieces per minute, the average processing time figures, standard duration average, the total number of scanned figures, the number of correct answers, the number of incorrect answers, making decision time, time-effect, the level of concentration, the volume of information used and the validity of the performance.

**Short Form Inventory (SF-36):** The questionnaire has been used to consider the variable of the life quality of the subjects without father and persons having father. It consists of 36 questions which measures eight relevant sub-criteria to the health such as, physical functioning, role limitation due to physical health, bodily point, general health, vitality, social function, role limitation due to emotional problems, and mental health.



**Fig. 2.** The Screenshot of working window «Clocks carousel». Highlighted with ordinary and control figures

**The Computer Version of “Quality of Life” SF-36 Questionnaire:** The SF-36 questionnaire is ever evolving as in the aspect of validation, as in standardization for different populations in accordance with the carried out pools of normative data. To approximate a normal distribution of population data and to create the possibility of the direct interpretation of QL scores, in present the formulas are offered for standardization of primary estimations of SF-36 scales. In accordance with the structure of SF-36 questionnaire consisted of 8 scales, the created program, which is offered for operation system of MS Windows and called “Life Quality” (Bjorner et al., 2003), is realized in multi-page version and provides as the data collection, as the automated calculation and keeping of results with the initial (blank) data of survey in the database of program.

## RESULTS

The descriptive and inferential analyses were conducted on statistical data. In addition the direct and indirect effects of independent variables on the dependent indices were examined.

To study the main tasks of the research the subjects were divided in the following 5 groups:

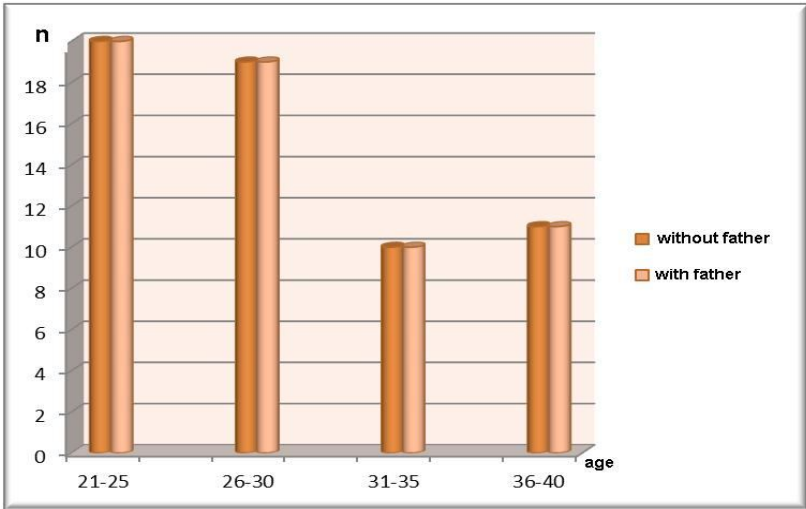
- 1) Subjects based on gender.
- 2) Subjects based on age.
- 3) Subjects based on marital status.
- 4) Subjects based on educational status.
- 5) Subjects based on employment status.

**Table 1**

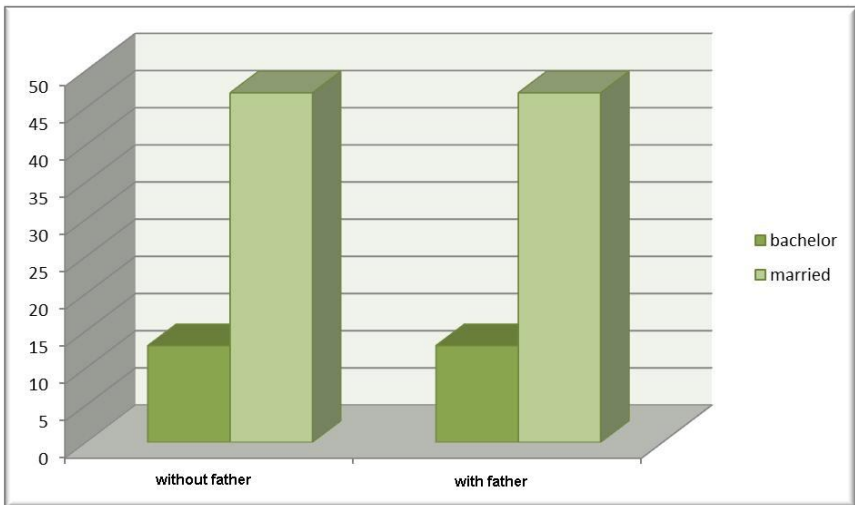
Distribution of the different groups of respondents based on gender

Subjects		Father presence		Total	
		without father	with father		
Sex	Male	N	30	30	60
		%	50.0	50.0	50.0
	Female	N	30	30	60
		%	50.0	50.0	50.0
Total		N	60	60	120
		%	100.0	100.0	100.0

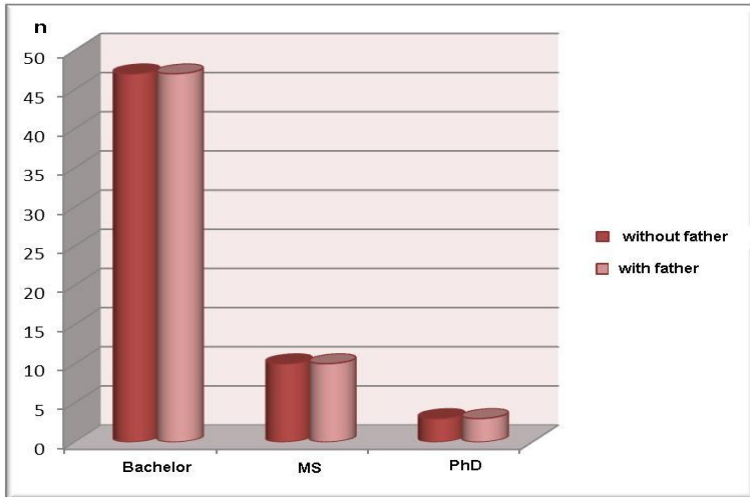




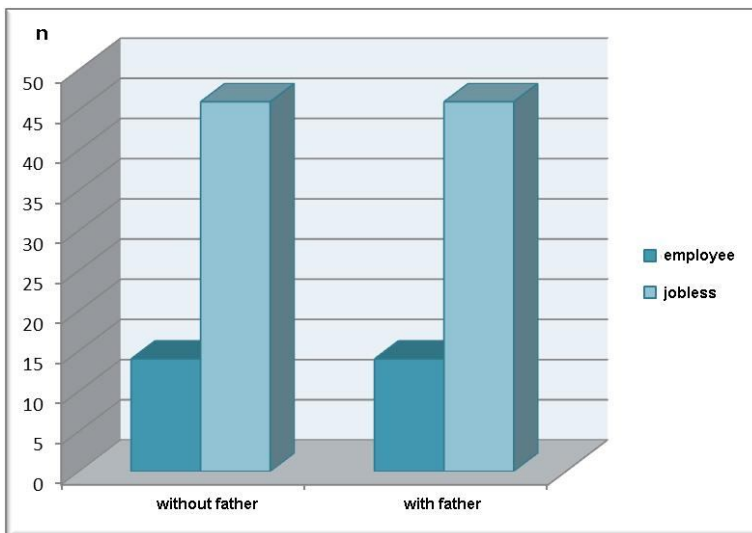
**Diagram 1.** Distribution of the different groups of respondents based on age



**Diagram 2.** Distribution of the different groups of respondents based on marital status.



**Diagram 3.** Distribution of the different groups of respondents based on educational status



**Diagram 4.** Distribution of the different groups of respondents (subjects with and without father) based on employment status

## **The differences between *behavioral characteristics* of the subjects who lost their father in the war and ordinary people**

In the Table 2 are presented the **SCL- 90** data for two groups of respondents with or without father. According to Normality test (Shapiro-Wilk), only Neuroticism index has normal distribution while there were no normal distribution concerning Extraversion and Social desirability indexes. Therefore, Student T-test and F test of Fisher is used to study the difference between martyr and non-martyr children regarding Neuroticism.

**Table 2**

The comparative data between ordinary people and subjects of victims by SCL-90

<b>Variables</b>	<b>Groups</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>F</b>	<b>P</b>
Somatization	without father	60	0.89	0.69	4.465	0.037
	with father	60	0.78	0.54		
Obsessive	without father	60	1.14	0.77	0.599	0.441
	with father	60	1.04	0.67		
Interpersenal Sensitivity	without father	59	1.24	2.67	4.624	0.020
	with father	60	0.95	0.56		
Anxiety	without father	60	0.91	0.72	0.244	0.023
	with father	60	0.72	0.69		
Aggression	without father	60	6.13	4.84	4.995	0.042
	with father	60	4.53	4.15		
Phobic Anxiety	without father	60	0.74	0.543	5.341	0.029
	with father	60	0.41	0.47		
Paranoid	without father	60	1.25	0.86	0.229	0.633
	with father	60	1.37	1.02		
Psychtiosm	without father	60	0.73	0.62	0.042	0.838
	with father	60	0.88	0.74		
Additional Question	without father	60	0.70	0.51	0.081	0.777
	with father	60	0.71	0.51		
Depression	without father	60	1.84	1.43	2.540	0.017
	with father	60	1.03	0.65		

## **The differences between *behavioral characteristics* of the subjects by gender**

According the results of the Table 3 significant differences in indices has been observed between subjects with father and without father. The mentioned was revealed for the Aggression, Depression, Anxiety, Somatization and Interpersonal Sensitivity. A glance at the mean column shows that the martyr group has a higher mean than non-martyr group regarding

all indices. For example, regarding Somatization aspect the differences between the martyr and non-martyr groups is 0.037 which shows a significant difference between the two groups.

**Table 3**

The comparative data between different gender groups on SCL-90

Variables	Sex	N	Mean	Std. Deviation	F	P
Somatization	male	60	0.7735	0.6686	0.783	0.378
	female	60	0.9050	0.5801		
Obsessive	male	60	1.067	0.7194	0.014	0.906
	female	60	1.118	0.7370		
Interpersoenal Sensivity-1	male	60	1.27	2.656	1.635	0.204
	female	59	0.91	0.555		
Anxiety-1	male	60	0.7660	0.5746	7.516	0.007
	female	60	0.9777	0.8091		
Aggression-1	male	60	1.8603	0.9224	5.224	0.037
	female	60	0.7292	0.6920		
Phobic Anxiety	male	60	3.27	3.369	4.520	0.020
	female	60	4.68	4.032		
Paranoid	male	60	8.17	5.687	0.361	0.549
	female	60	7.32	5.167		
Psychtiosm-1	male	60	0.7982	0.5635	6.187	0.014
	female	60	0.8185	0.7938		
Additional Question-1	male	60	0.6818	0.4550	2.352	0.128
	female	60	0.7375	0.56317		
Depression-1	male	60	0.9607	0.6342	4.716	0.039
	female	60	1.2183	1.4318		

The results of variance analysis test suggest that there is a significant difference in some aspects of SCL-90 between different gender groups (men and women). There was recorded significant difference between men and women in terms of Anxiety, Interpersonal Sensitivity, Depression, Aggression, and Phobic Anxiety. Thereby for Aggression, Psychoticism, and Interpersonal Sensitivity men have higher indices than women. Men have a higher rate of Anxiety and Psychotics' than women. In case of Depression and Phobic Anxiety women have higher values than men.

## The differences between respondents with and without father regarding *personal characteristics*

Data of this series of observations have revealed significant differences between subjects with and without father regarding personality indices (Table 4). The level of T-test and Mann-Whitney test for Neuroticism, Extraversion and Social desirability indices are 0.002, 0.008, and 0.004 which demonstrate the significance difference between these subjects. Thus, fatherless respondents have a higher index of Neuroticism than the subjects with father. The mean values of Extraverts are also higher among the fatherless subjects. The index of Social desirability is higher among subjects with father. It should be mentioned that the appropriate test has been used regarding the normal or abnormal distribution of some indices. Therefore, for Extraversion and Social desirability Non-parametric tests have been used due to the abnormal distribution of indexes, whereas for Neuroticism index due to its normal distribution, parametric tests have been used.

**Table 4**

The comparative data between subjects with and without father based on personality indices

Variables	Groups	Kind of test	Mean	P
Neuroticism	without father	T-test	15.20	0.002
	with father		11.07	
Extraversion	without father	Mann-Whitney U	64.20	0.008
	with father		56.80	
Social desirability	without father	Mann-Whitney U	54.96	0.004
	with father		66.04	

## The differences between personal characteristics of respondents by gender

According to the data of the Table 5, level of Mann-Whitney test for Extraversion is 0.26 which shows a lack of significant difference in terms of Extraversion between men and women participants. On the other hand, there is a significant difference regarding Social desirability and Neuroticism between men and women participants. Reviewing the mean values of two groups indicate that men have higher social desirability than women, while women have higher Neuroticism than men.

**Table 5**

The comparative data between different gender groups on personality indices

Variables	Groups	Kind of the test	Mean	P
Neuroticism	Male	T-test	11.23	0.033
	Female		12.03	
Extraversion	Male	Mann-Whitney U	64.06	0.260
	Female		56.94	
Social desirability	Male	Mann-Whitney U	68.71	0.009
	Female		52.29	

### The differences between personal characteristics of the respondents with and without father based on gender

In this series of tests was used Kruskal–Wallis one-way analysis of variance, which is non-parametric method for testing whether samples originate from the same distribution. When the Kruskal-Wallis test leads to significant results, then at least one of the samples is different from the other. This test would help analyze the specific sample pairs for significant differences and does assume an identically shaped and scaled distribution for each group, except for any difference in medians.

**Table 6**

The comparative data between different gender groups of fatherless and ordinary subjects in terms of personality indices

Variables	Groups		Kind of test	Means	P
Neuroticism	without father	male	F-test	11.90	0.007
		female		12.50	
	with father	male		10.57	
		female		11.57	
Extraversion	without father	male	Kruskal-Wallis Test	68.27	0.531
		female		57.97	
	with father	male		59.85	
		female		55.92	
Social desirability	without father	male	Kruskal-Wallis Test	61.38	0.016
		female		48.53	
	with father	male		76.03	
		female		56.05	

Data of the Table 6 testify that level of Kruskal-Wallis Test for Extraversion does not show any significant difference between men and women participants. However, there is a significant difference in terms of Social desirability: male subjects with and without father have higher indices than other groups. Moreover, the results of Variance analysis test for Neuroticism show that female subjects without father have higher mean values than other groups (male and female subjects with father). Therefore, it can be concluded that female subjects without father have higher mean value of Neuroticism and male subjects with father have higher mean value of Social desirability than other groups.

### **The differences between Quality of Life of the respondents with and without father**

**Table 7**

The comparative data on quality of life between the subjects with and without father

<b>Variables</b>	<b>Groups</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>F</b>	<b>P</b>
Physical functioning	without father	60	50.860	9.9343	1.216	0.272
	with father	60	52.747	6.6438		
Role limitation due to physical health	without father	60	42.033	11.3371	4.116	0.045
	with father	60	43.872	9.9344		
Bodily point	without father	60	48.883	12.3160	4.731	0.032
	with father	60	50.102	9.2580		
General health	without father	60	42.602	5.4339	0.008	0.927
	with father	60	43.320	4.8614		
Vitality	without father	60	50.180	8.6398	4.192	0.042
	with father	60	51.990	9.2000		
Social function	without father	60	41.233	10.942	4.154	0.036
	with father	60	44.82	10.804		
Role limitation due to emotional problems	without father	60	41.728	11.1716	4.402	0.038
	with father	60	44.761	12.7885		
Mental Health	without father	60	44.682	9.3210	4.317	0.044
	with father	60	46.083	10.9599		
Physical Health Component	without father	60	49.537	8.2478	10.263	0.002
	with father	60	48.350	5.3000		
Mental Health Component	without father	60	43.137	9.5891	4.466	0.028
	with father	60	45.010	11.2284		

The result of the comparison test (Table 7) revealed significant difference between respondents with and without father in terms of the different components the quality of life ( $P < 0.05$ ). The data shows that indices of the Quality of Life in the fatherless subjects are lower than in subjects who have father regarding all physical and mental components.

There was found significant differences between male and female subjects regarding quality of life components. The level of variance analysis was not significant for the variables of general physical and mental health limitations, while a significant difference have been noticed for other variables. It is of interest that in all studied variables, the quality of life for female subjects was lower than in male subjects, as well as in male and female subjects who had father.

### **The differences between *mental functions (memory)* indices of subjects with and without father**

**Table 8**

The comparative data on mental functions of the subjects with and without father

<b>Variables</b>	<b>Groups</b>	<b>N</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>Std. Error Mean</b>	<b>F</b>	<b>P</b>
Processing Rate bits per second	without father	60	16.293	5.1544	0.6654	0.536	0.465
	with father	60	16.305	5.6937	0.7351		
Memorized number	without father	60	6.53	1.467	0.189	0.711	0.401
	with father	60	7.32	1.652	0.213		
Short-term memory bandwidth	without father	60	5.438	3.6450	0.4706	3.132	0.079
	with father	60	7.577	6.1744	0.7971		
Short-term memory span	without father	60	32.67	7.335	0.947	0.711	0.401
	with father	60	36.58	8.258	1.066		
STM_Cap1	without father	60	108.725	50.8702	6.5673	0.030	0.862
	with father	60	122.578	51.7989	6.6872		
Short-term memory capacity	without father	60	7.332	4.6684	0.6027	0.208	0.649
	with father	60	9.498	8.0969	1.0453		
Long-term memory	without father	60	7.30	4.788	0.618	0.902	0.344
	with father	60	9.63	3.966	0.512		



Analysis of data does not show (Table 8) a significant difference between subjects with father and without father regarding *short term memory* components. The data testify that the fatherless subjects have lower mean values of different components and lower functioning; however, the calculated T for subjects with father and without father was not significant for all the mental function components.

The data indicate that there is no significant difference ( $p < 0.05$ ) in terms of *long term memory* and different components of short term memory (the speed of reading alphabets aloud, memorizing the number of alphabets by the subjects, memory, data process speed, and the capacity of short term memory) between different groups. The important point is that the fatherless respondents has lower mean indices than the subjects with father for all components, which shows low functionality of the fatherless ones. Moreover, males have higher indices than females both in subjects with father and without father. This testifies that males have a higher functionality than females in these groups.

Concerning differences between *attention* indices of fatherless subjects and those with father there are significant differences between them in regards the mean processing time for total number of figures, the mean of the time needed for making decision to skip ordinary figures, the mean time needed for deciding between the first and second elimination and the mean overtime to eliminate control figures during 10 minutes of testing time. Therefore, it was established that there is a significant ( $P < 0.005$ ) difference between fatherless and non-fatherless subjects related the mentioned variables. The interesting point is that for all four mentioned items, the recorded mean time for fatherless subjects is higher.

Observations on *hemodynamic* indices revealed that in fatherless subjects the pulse rate before the test is higher than in those who have father, while at the end of test in fatherless subjects it is lower. It should be mentioned that the pulse rate of fatherless subjects before the test has a significant difference from those with father, but there is not significant difference between their pulse rates after the test. Regarding blood pressure, in spite of that the fatherless subjects have higher blood pressure and the difference was not significant. It should also be mentioned that due to the normal distribution of all considered variables, T-test was used for studying the differences between various groups.

### **Correlation test between components the quality of life and Depression, Aggression, and Anxiety in fatherless subjects**

It was established that in fatherless subjects Emotional role limitations have a significant inverse correlation with Aggression, while other variables do not have any significant relation with Aggression. Vitality Role Limitation due to Emotional Problems and mental health has significant relationship with Anxiety. In general it was indicated, that mental health component at 0.01 levels has significant relation with Depression, and for other variables at 0.05 levels have significant relation with Depression. On the other hand, the same situation can be seen for Anxiety and all variables having significant relation with Depression. It should be mentioned that the observed correlation between Depression and Role Limitation due to Emotional Problems is significant at 0.01 levels, while other correlations are significant at 0.05 levels. In the case of subjects who have father there is no any significant relation or correlation between the components of Social Functioning, Role Limitation due to Emotional Problems and mental health and Anxiety, Depression, and Aggression.

## SUMMARY

The results of this study suggest that one of the important needs of child's milieu is the need of feeling secure and the absence of father make the person to feel insecure and this itself would cause anxious behavior in the subject. Such a trauma as a result may have negative effects on personality development.

We propose, that the absence of father in early ages of birth is related to socially harmful behavior and lack of self-reliance. Hence it's possible that the person will not be able to succeed in different stages of life as an adult. The subjects without father show fewer tendencies toward studying and are more likely, fall behind in academic studies compared to persons who have father. All subjects who lost their biological father have lower performance at school, get lower grades and reveal less confidence in their studies.

It was established that physical problems, anxiety, interpersonal sensitivity and aggression in subjects who have lost their father are higher than in ordinary persons and that these people are at risk of suffering with numerous behavioral problems. It should be mentioned that persons who lost their father in war are more at the risk of being afflicted with behavioral problems, since they have exposed the danger of negative aspects of war, which are some of the most stressful anxiety disorders and will accompany them for a long time.

In subjects who lost their father in war the quality of their lives were related to two critical factors of depression and anxiety, evidently establishing that those who were afflicted by these two factors have lower rates of quality of life.

The existing ideas of attention deficit are based on the fact that in stressful individuals' attention span are mainly at the lower level than that of normal students which makes them unable either to shift their attention to different phenomena or to pay attention to different aspects of a task (Ali YarZanjani, 1997; Shalev et al., 2007; Carmeli et al., 2008; Piek et al. 2007; Kaplan & Sadock 2007; Wilson, 2009). In fact, long-term sensory stimulation increases the brain synapses and ultimately leads to higher sensory perception. Reticular activating system is an area in the brain that plays an important role in attentional performance, emanating from the lower part of the brain-brainstem, and makes our brain aware and ready to receive information. The role of this system in controlling sustained attention, inhibition, programming, organization and behavioral classification is indispensable.

The results of this research about the variable of attention points that people who lost their father in war, during mental activities that demand celerity, concentration and precision, have lower performance and that it is due to the anxiety for accomplishment and fear of defeat which leads to more stress and that it would accompany the mental pressure and would cause negative effects on their brain's activity for information processing.

The results of checking long-term and short-term memory revealed that persons who lost their father in war had lower task performance compared to normal people. The data obtained by Herman, Cullinan (1997) by the same problem coincide with results of the present work. In addition, their findings point out that stress force the person focus only on current situation which causes disruption on previous information and low performance in the future. Moreover, the gain of stress causes to negligence and decreasing of performance in long-term memory. Subjects who have lost their father demonstrated less concentration in compulsive situations and lower ability of memorizing. Herman, Cullinan (1997) findings testify that people who have experienced stressful situations reveal more ability to remember the details of the mentioned event, showing that stress and mental pressure caused by the events of war, would act on person's mental performance in a negative way. It causes memory disruption, lack of concentration, reduces gray matter and leads to lower brain performance. Since stress hormones impede the forehead area of the brain from getting enough glutamate, there will be a significant

memory disturbance. Thus, subjects having no father and suffering from tense and stressful situations would face problems of data collection. According to these, stress and mental pressure have significant effects on cognitive processes and memory, i.e. person isn't able to utilize his/her memory and loses the ability for reaching the proper decisions.

It is known, that mental stress leads to the rise in arterial pressure and heart rate, by way of altered neural cardiovascular regulation, typically consisting of increased sympathetic activity ( Kamiya et al., 2000) and reduced baroreflex gain, (Pagani et al., 1995) coupled to a prolonged endothelial dysfunction ( Ghiandoni et al., 2000). Lucini et al., (2002) established that, in healthy medical students, the preparation to undergo the expected challenge of a university examination, which represents a widely employed model of a moderate real-life stressor, raises resting arterial pressure and, in addition, induces important humoral changes and impairs autonomic regulation. Overall, the clear activation of the HPA axis and altered cytokine profile is accompanied by a shift toward sympathetic activation and vagal withdrawal at rest and by enhanced vasomotor and reduced cardiac sympathetic responses to standing. These alterations of humoral and autonomic homeostasis suggest a treatable mechanistic link (Rozanski, Blumenthal, 1999) between real-life stress and components of increased cardiovascular risk, such as increased arterial pressure (Vrijkotte et al., 2000) and reduced baroreflex gain.

Our observations revealed that, compared to normal people, devoid of father subjects before the tests had higher heart rates and lower heart rates after the test. To explain this phenomenon, one might state that in compulsive situations, subjects of martyrs usually are under high stress and anxiety which leads to lack of accuracy and higher error rates.

However, future studies examining the activation of the complete brain in more detail are required to reveal basic structures of CNS, responsible for various psychophysiological manifestations in subjects, who lost their fathers in the war.

## CONCLUSIONS

1. Results the inventory of personal characteristics in regards of Neuroticism and Extroversion revealed that students who lost their fathers in war have lower performance, than ordinary students.
2. Subjects without father possess more physical problems, anxiety, interpersonal sensitivity and aggression compared with ordinary subjects.
3. In psychological aspect, respondents who have lost their father in the war, have lower average indices the Quality of life.
4. The attention variables of the subjects who lost their father in the war are found in lower level compared to ordinary subjects
5. The short- and long-term memory indices in subjects who lost their father in the war are found at lower levels.
6. Among respondents who lost their fathers in war, females have more severe behavioral and personality problems than males.
7. Compared to males, females have more behavioral and personality problems related to variables like memory and concentration and have lower performances.
8. The hemodynamic indices showed, that compared to ordinary subjects persons who lost their fathers in war have higher heart rates before being tested, while they had lower heart rates after the test
9. Fatherless persons and suffering from tense and stressful situations would face problems of data collection. According to these, stress and mental pressure have significant effects on cognitive processes and memory, i.e. person isn't able to utilize his/her memory and loses the ability for reaching the proper decisions.

## PUBLICATIONS RELEVANT TO THESIS

1. **KarimiTaleghani M.** A survey on behavioral problems of students who have lost their fathers in war in Golestan province (Iran). Proceedings of the 2<sup>nd</sup> Scientific-Research Conference of Iranian students.2013, 299-306.
2. **KarimiTaleghani M.,** DoustdarTousi S.A. A survey on general health and social support of students who have lost their father in the war at Golestan. Issues in Theoretical and Clinical Medicine. 2013, V.16, No 4 (80), 55-57.
3. **KarimiTaleghani M.** A survey on behavioral problems of students who have lost their fathers in war in Golestan. 2013, Issues in Theoretical and Clinical Medicine. 2013, V.16, No 4 (80), 57- 61.
4. **KarimiTaleghani M.,** Sarkisian V.H. The behavioral problems of university students who have lost their father in the war. Third International Conference of Neuroscience and Biological Psychiatry. 2013, P14, 57-58.
5. **KarimiTaleghani M.,** Sarkisian V.H. Study the life quality of students who have lost their father in the war. Issues in Theoretical and Clinical Medicine. 2014, V.17, No 1 (87), 50- 53.

## ՄԱՀՆԵՍԱ ՔԱՐԻՄԻԹԱԼԵՂԱՆԻ

### **Պատերազմում հայրեր կորցրած անձանց հոգեբանական և հոգեֆիզիոլոգիական բնութագրերի վարքագծային փոփոխությունների ուսումնասիրությունը**

#### ԱՄՓՈՓՈՒՄ

Ընտանիքում ծնողների բարյացակամ վերաբերմունքը երեխաների նկատմամբ հանդիսանում է երեխաների հոգեկան և հոգեբանական առողջության գրավականը: Ընտանիքը հանդես է գալիս որպես առաջնային միավոր, որում ձևավորվում է անհատը, նրա բնավորությունը, վերաբերմունքը հասարակության նկատմամբ, և որն ապահովում է անվտանգության և խաղաղության զգացում: Երեխայի, որպես անհատի ձևավորման մեջ, պատերազմը և հոր կորուստը կարող են հանդիսանալ հոգեբանական վնասվածքների և խրոնիկական սթրեսի գործոն: Այն կարող է հետք թողնել հետագա կյանքի ընթացքի վրա:

Տվյալ հետազոտության տվյալները վկայում են այն մասին, որ մարդու միջավայրի կարևորագույն պահանջներից մեկը հանդիսանում է ապահովության զգացումը և հոր բացակայության դեպքում մարդ իրեն զգում է անապահով և որն ինքնըստինքյան հանգեցնում է տագնապայի վարքագծի: Առանց հոր սուբյեկտները ցուցաբերում են ուսման նկատմամբ ավելի քիչ հակվածություն, և համեմատած հայր ունեցող անձանց հետ, հաճախ հետ են մնում ակադեմիական առարկաներում:

Ցույց է տրվել, որ հայր կորցրած մարդկանց մոտ տագնապը, ֆիզիկական պրոբլեմները, միջանձնային զգայնությունը և ագրեսիան ավելի բարձր է և որ նրանք ենթարկվում են տառապելու ռիսկի՝ տարբեր վարքագծային խնդիրների պատճառով: Պատերազմի արդյունքում հորը կորցրած (1խումբ) անհատները ավելի շատ ռիսկի են ենթարկված տառապելու վարքագծային խնդիրներով, քանի որ նրանք ենթարկվում են պատերազմի բացասական ասպեկտների վտանգին, որոնք հանդիսանում են ամենալարված տագնապայի խանգարումներից մեկը և կարող են անհատին ուղեկցել դեռևս շատ երկար ժամանակ:

Նեվրոտիզացիայի, էքստրավերսիայի և սոցիալական պահանջարկի ուսումնասիրությունը ցույց է տվել, որ 1 խմբի անհատների մոտ կա բարձր նեվրոտիզմ և էքստրավերտություն: Սոցիալական պահանջարկի հարցում 1 խմբի իգական սեռի ներկայացուցիչները ցուցաբերում են ավելի ցածր ցուցանիշներ, քան ստուգիչ խմբի անդամները: 1 խմբի անդամների վարքագծի վերլուծությունը ըստ սեռի բացահայտել է, որ արական սեռի ներկայացուցիչների մոտ գերակշռում է ագրեսիայի և հոգեկան խախտումների բարձր մակարդակը, իսկ կանանց մոտ ֆոբիային տագնապները և դեպրեսիան. մնացած ցուցանիշները հավաստի չեն:

SF-36 հարցաթերթիկի համաձայն Ֆիզիկական և հոգեկան առողջության բոլոր չափանիշներով 1 խմբի անդամները ցուցաբերում են ավելի ցածր արդյունք, քան՝ ստուգիչ խմբի: Համեմատական վերլուծության արդյունքում բացահայտվել է, որ տարբեր սեռերի կյանքի որակի ցուցանիշները, կապված բարեկեցիկ կյանքի հետ տարբեր են. երկու խմբերի կանայք էլ ավելի խոցելի են, քան տղամարդիկ:

Ուշադրության բացակայության մասին առկա փաստերը հիմնված են այն բանի վրա, որ սթրեսի ենթարկված ֆիզիկական անձանց ուշադրության կենտրոնացումը գտնվում է ավելի ցածր մակարդակի վրա, քան նորմալ ուսանողների մոտ, որի պատճառով նրանք ի վիճակի չեն սկսելու իրենց ուշադրությունը տարբեր երևույթների և հանձնարարությունների վրա (Shalev et al., 2007; Carmeli et al. ; 2008; Piek et al. 2007; Kaplan & Sadock, 2007; Wilson, 2009): Ամեն դեպքում, երկարատև զգայական խթանումը բարձրացնում է ուղեղի սինոպսիսը և վերջին հաշվով բերում է ընկալման զգացողության բարձրացման: Ուղեղի ցանցանման ակտիվացնող համակարգը, որը կարևոր դեր է խաղում կամավոր ուշադրության ապահովման գործում, բարձրանում է ուղեղի բնի ստորին հատվածից և նախապատրաստում է մեր ուղեղը ինֆորմացիայի ընդունմանը: Այս համակարգի դերը ուշադրության կարգավորման, գրգռման, արգելակման, ծրագրավորման և վարքագծային ռեակցիաների կազմակերպման գործընթացներում անհրաժեշտ և կասկածից վեր է:

Ցույց է տրվել, որ պատերազմի ժամանակ հորը կորցրած անհատները, որոնք ունեն լարված և սթրեսային իրավիճակներ, հաճախ ունեն տվյալների ընկալման խնդիրներ: Այսպիսով, սթրեսն ու հոգեկան ճնշումը ունեն նկատելի ազդեցություն ճանաչողական գործընթացների և հիշողության վրա, այսինքն մարդն ի վիճակի է օգտագործել իր հիշողությունը, բայց կորցրել է ճիշտ որոշումներ ընդունելու ձգտումը:

Այս ուսումնասիրության արդյունքները ուշադրության ինդեքսի մասին վկայում են, որ 1 ին խումբը արագություն, կենտրոնացում, ճշգրտություն պահանջող մտավոր գործունեության ընթացքում ունի առավել ցածր արտադրողականություն, և դա կապված է ձախողման վախի հետ, առաջացնում է մեծ սթրես, հոգեբանական ճնշում և կարող է հարուցել բացասական ազդեցություն ուղեղում ինֆորմացիայի մշակման գործընթացում:

Ճշտման թեսթի կատարման ժամանակ սրտի զարկերի հաճախականության և զարկերակային ճնշման կորելացիոն վերլուծությունը 1 խմբի մոտ ցույց է տվել սիմպատիկ ակտիվության բարձր մակարդակ: Բացահայտված է տղամարդկանց մոտ ներոտիզմի և ագրեսիայի, կանանց մոտ ներոտիզմի և դեպրեսիայի միջև հակառակ կորելացիոն կապ:

Այսպիսով, այս աշխատանքում ցույց է տրված, որ պատերազմում հորը կորցրած անձանց մոտ նկատվում են բոլոր էնցիոնալ-աֆեկտիվ խանգարումները (տագնապ, վախ, ագրեսիա, դեպրեսիա, սոմատիզացիա՝ զերակշռող սիմպատիկ ռեակցիաներով՝ բարձր քրոնարտադրություն, սրտի զարկերի արագացում, զարկերակային ճնշման բարձրացում և այլն), որոնք հանդիսանում են քրոնիկ հոգաբանական սթրեսի արդյունք: Այս խանգարումները հարուցում են օրգանիզմի դիմադրողականության անկում, սթրես-տոլերանտություն և ընդհանուր հարմարվողականության վատացում:

Այդուհանդերձ անհրաժեշտ են հետագա ուսումնասիրություններ, նվիրված ողջ ուղեղի ակտիվության ավելի մանրամասն ուսումնասիրությանը, բացահայտելու համար ԿՆՀ հիմնական այն կառույցները, որոնք պատասխանատու են պատերազմում հորը կորցրած անձանց մոտ տարբեր հոգեֆիզիոլոգիական խանգարումների համար:

## МАХНЕСА КАРИМИТАЛЕГАНИ

### Изучение психологических и психофизиологических характеристик поведенческих изменений у лиц, потерявших своих отцов на войне

#### РЕЗЮМЕ

Одним из наиболее важных факторов, влияющих на психические и психологические особенности поведения индивидуума является дружелюбные отношения родителей в семье. Семья рассматривается как начальная ячейка, в которой формируется личность, ее характер, поведение и отношение к обществу, и обеспечивает чувство безопасности, мира. Война и потеря отца на войне могут явиться факторами психологических травм при формировании личности и причиной хронического стресса, который может изменить психический статус человека на всю оставшуюся жизнь.

Результаты данного исследования свидетельствуют о том, что одним из важных потребностей человека является чувство безопасности, а отсутствие отца в семье вызывает состояние неуверенности, что может вызвать тревожное поведение. На наш взгляд, потеря отца в раннем возрасте может стать причиной социально не стабильного поведения и отсутствия уверенности субъекта в своих силах. Субъекты без отца менее склонны к учебе и больше отстают в академических предметах по сравнению с личностями, которые имеют отца. Показано, что лица, потерявшие своих биологических отцов, имеют более низкую успеваемость в школе, и выявляют меньше уверенности в своей повседневной деятельности.

Было установлено, что физические проблемы, тревога, межличностная чувствительность и агрессия у лиц, потерявших отца, выше, чем у обычных людей и что они больше подвержены риску психических расстройств с многочисленными поведенческими последствиями. Таковыми являются лица, потерявшие отца на войне (I группа) так как они подвергаются опасности негативных воздействий войны, которые являются причиной депрессивных и тревожных расстройств, сопровождающих их в течение длительного времени.

Изучение степени невротизации, экстраверсии и социальной востребованности показало, что испытуемые I группы обладают большим невротизмом и экстравертностью. В отношении социальной востребованности у лиц женского пола I группы показатели ниже по сравнению с контрольной группой. Сравнительный анализ поведения испытуемых I группы по полу выявил наиболее высокий уровень ущемленности и агрессии у лиц мужского пола, в то время как у лиц женского пола превалирует фобическая тревожность и депрессия, остальные показатели недостоверны.

Изучение степени невротизации, экстраверсии и социальной востребованности показало, что испытуемые I группы обладают большим невротизмом и экстравертностью. В отношении социальной востребованности у лиц женского пола I группы показатели ниже по сравнению с контрольной группой.

По всем параметрам физического и психического здоровья согласно вопроснику SF-36 у тестируемой группы показатели гораздо ниже, чем у контрольной группы. При сравнительном анализе показателей качества жизни по половым различиям обнаружено, что в отношении как физического, так и психического благополучия женщины обеих групп более уязвимы, чем мужчины.

Существующие факты о дефиците внимания основаны на том, что у лиц, переживших стресс, либо подвергающихся хроническому стрессу, концентрация

внимания находится главным образом на более низком уровне, чем у нормальных испытуемых, из-за чего они не в состоянии сосредоточить свое внимание на конкретные явления для успешного выполнения различных задачи (Shalev et al., 2007; Carmeli et al. ; 2008; Piek et al. 2007; Kaplan & Sadock, 2007; Wilson, 2009). На самом деле, долговременная сенсорная стимуляция увеличивает синопсис мозга и в конечном итоге приводит к повышению чувственного восприятия. Ретикулярная активирующая система мозга, играющая важную роль в обеспечении произвольного внимания, восходит с нижней части ствола мозга и готовит наш мозг к приему информации. Роль этой системы в регуляции внимания, возбуждения, торможения, программирования и организации поведенческих реакции обязательна и несомненна.

Результаты настоящего исследования о снижении индекса внимания указывают на то, что тестируемые I группы во время умственной деятельности, требующей быстроты, концентрации и точности, имеют более низкую производительность, которая связана с тревогой за точность исполнения и со страхом неудачи, что приводит к большому стрессу и психологическому давлению и может вызвать негативные последствия для деятельности мозга при обработке информации. Было выявлено, что лица потерявшие отца на войне и пребывающие в постоянном напряжении, т.е. в стрессовой ситуации, сталкиваются с проблемами сбора данных. Таким образом, стресс и психическое давление оказывают значительное негативное влияние на когнитивные процессы и память, иначе говоря человек не в состоянии полноценно использовать свою память в результате чего теряет способность к достижению правильных решений.

Корреляционный анализ частоты пульса и артериального давления при выполнении корректурного теста показал более высокую степень симпатической активности у тестируемой группы. Выявлена обратная корреляционная связь между невротизмом и агрессией у мужчин, и невротизмом и депрессией у женщин тестируемых групп.

Таким образом, в настоящей работе показано, что у лиц, потерявших своих отцов на войне, наблюдаются все эмоционально-аффективные расстройства (тревога, страх, агрессия, депрессия, соматизация, включающая превалирование симпатических реакций в виде повышения потливости, учащения пульса, подъема артериального давления и др.), которые являются результатом хронического психологического стресса. Все эти нарушения вызывают ухудшение резистентности организма, стресс-толерантности и препятствуют реализации общего адаптационного синдрома (по Селье) и выхода из стресса.

Тем не менее, в будущем необходимы исследования, посвященные более детальному изучению активации всего мозга для раскрытия основных структур ЦНС, отвечающих за различные психофизиологические отклонения у лиц, потерявших своих отцов на войне.

