

# Effect of military training on personality traits of military students

Maleki B.\* MSc, Sanei S.<sup>1</sup> PhD, Borhani H.<sup>2</sup> MSc, Ghavami A.<sup>2</sup> MSc

\*Department of Physical Education, Faculty of Physical Education, Shahr-e-Rey Branch, Islamic Azad University, Shahr-e-Rey, Iran;

<sup>1</sup>Department of Physical Education, Faculty of Physical Education, Emam Hossein University, Tehran, Iran;

<sup>2</sup>Department of Physical Education, Faculty of Physical Education, University of Urmia, Urmia, Iran

## Abstract

**Aims:** Personality is one of the most fundamental concepts of psychology that is affected by various experiences. Having an acceptable character is an ideal view and a remarkable point for military forces. Therefore, the aim of this study was to investigate the effects of military training on personality traits of non-athlete students who enter the military environment.

**Methods:** This quasi-experimental study was carried out in 2011. The study subjects were 105 non-athlete male students who entered one of the Cadet Universities of Iran in the academic year of 2010-11 and were selected by simple random sampling. The data gathering tools were personal characteristics questionnaire and *Bern Reuter* Personality Inventory. Data were analyzed by Kolmogorov-Smirnov test and dependent T-test using SPSS 16 software.

**Results:** Military training had a significant positive effect on four of the studied characteristics and increased self-confidence, dominancy, extroversion and the decrease of neurotic tendency ( $p=0.001$ ). This happened while military training had a significant negative effect on sociability ( $p=0.002$ ) and self-sufficiency ( $p=0.001$ ) and caused increase in isolation and decrease in sociability.

**Conclusion:** Military training increases emotional balance, extroversion, self-confidence and dominancy in students, while it results in dissociability and isolation of students. Authorities should consider necessary arrangements during military training in order to wash out negative effects and enhance more positive effects of this period on students' personality traits.

**Keywords:** Military Training, Personality Traits, Military Students

## Introduction

Personality is one of the most fundamental concepts in psychology theories that include various theories such as social learning theory, psychological theory, and personality traits theory. According to these theories, personality can be described by some continuous dimensions, each of which is representative of a single trait [1]. *Lazarus & Munat* consider personality as the unique psychological combination that is relatively constant and basic psychological structure and processes which organizes the experience of humans and forms the actions and personal reactions toward the environment [2].

Although the personality of individuals is formed in the early stages of life, some experts believe that personality can be changed by subsequent experiences and can be reformed [3]. Mental training and true personality trait education have been not only on the top of training programs of prophets, but also many social and educational institutions are also trying to develop psychological growth of people in today's world using experiences, scientific findings and utilizing the behavioral sciences [4]. Having acceptable character is an ideal and remarkable approach for military forces. Due to professional and special mission of military people, these types of

people encounter with more occupational issues and have more psychological problems compared with other careers. Psychological pressure of the type of career, complex missions, hard laws, probability of injury, disability, imprisonment and even death are the issues the probability of which is much more in military careers rather than non-military occupations. Research suggests the prevalence of psychiatric disorders including anxiety, stress and depression in modern society (especially in the military because of the nature of their work), in the way that many people suffer from these problems and annually a very high cost is spent for treating these disorders [6]. On the other hand, advances in modern science and technology, has caused the enemies to start soft war by creating virtual electronic spaces and if a military person does not have a balanced and stable personality, can be easily defeated by these political spaces and becomes an anti-organization force. So, one of the major goals of military training in any military organization, in addition to planning for promoting skill and physical fitness, is emphasizing on mental fitness and having safe and healthy personality for satisfying the organizational needs. Meanwhile, this issue shows its clear importance during the process of recruitment and selection of staff for the organization as well as productivity and efficiency of

work and interaction style of staff in terms of the type of the job [7].

Individual combat tactics, military honors and rituals, parades, military shows, quick movement, crossing barriers, road march, running with weapons, military theory lessons, moral lessons, physical education, morning physical exercises, etc. are an integral part of military training and they need high level of physical ability. So, physical activity as a means of achieving physical and psychological health is the basic infrastructure of all military training all around the world and it has a very important role in the development of latent talents. Several studies have shown that regular motor activity, can extraordinary affects the physical and psychological condition of people in the way that physical activity can be considered as a means for training and forming the personality [4, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18]. However, it should be noted that military training courses have a clear framework and besides physical activities, it covers all programs from awaking time to sleep time. Some research merely investigate the effect of military training on the psychological and personality factors such as the research conducted by *Sadeghinia* that showed that military training period affects the psychological health of subjects and improves their mental health [19]. *Khadem Al Hussein* et al., however, in their study concluded that this period does not have any significant effect on general health of subjects [20]. *Daneshfard* et al., also, in their research investigated the relationship between general duty of training and personal skills development on 230 soldier under training in one of training centers of NAJA and showed that military training has significant positive effects on personality skills such as self-confidence, influence, perfectionism, communication skills (Extraversion), spirit of teamwork, responsibility and personal experience [21]. Also, *Schmidt* et al., in a research showed that mental factors of concern and anxiety in stressful situation of military training increases the likelihood of panic attacks and fear in the subjects [22]. According to the results of research conducted by *Oltmanns*, people who had left the air force after military training achieved higher scores in the characteristics associated with paranoid disorders, avoiding and borderline compared with those who was still served in military after two years of military service as military staff. Also, there was significant difference between two groups in characteristics associated with anti-social personality disorder, neuroticism, dependence, schizoid, schizophrenia and histrionic [23]. In the research of *Xiong* et al. 25.2% of

soldiers showed the symptoms of depression, self-sufficiency and isolation during the period of military training and this depression and self-sufficiency was higher in people with higher education, municipal, people who were in military in shorter time and people who had physical disability [24]. *Gulec* et al. in a study examined the prevalence of depression symptoms in 2910 new recruited soldier in Turkey military, and they showed that 9.19% of subjects had the symptoms of depression and isolation that this amount has been higher than the statistics of these symptoms in normal population [25]. *Chaturvedula & Joseph* in their study on 50 pilot officers concluded that these officers were in average level in terms of welfare, psychological traits, they were in high-level in terms of neuroticism personality and they were in very high level with respect to personality traits [26]. Generally, in reviewing the research in the field of personality, it can be said that the bulk of studies related to the changes in personality characteristics, have sport aspects. Also, the majority of conducted studies in Iran and in the military field have focused on the psychological health and mental disorder and problems and they less emphasized on the aspects of personality development especially in military students in military universities. On the other hand the effect of training courses on different factors such as physical fitness [19, 27], cardiovascular endurance [19, 28], and physical injuries of military personnel have been investigated for several times [29]. Having all said and done, conducting research which investigates the effect of military training on the personality traits of military students seems essential. Therefore, the aim of this research is investigating the effect of military training period on the personality characteristics of non-athlete students entering the military university.

## Methods

This quasi-experimental research was conducted in 2011 the method included was pre-test and post-test. The research population was including all male students entering one of military university of country who entered the university in education year 2010-2011. The number of these students was 950 subjects. After doing preliminary work, list of all entering students to university was obtained through cooperation with the university students affairs. Then, 274 people of population were chosen (based on the Cochran formula for determining sample size) through simple random sampling that all of them completed the questionnaire of personal traits

(including the score of diploma, age, weight, height and the questions designed for determining the experience of being athlete or non-athlete of subjects. 105 subjects had the essential conditions among these groups that is their being of non-athlete was specified and was considered as the main sample of the research that this number of samples is appropriated for quasi-experimental research. Besides the questionnaire of personal trait, *Bernreuter* questionnaire was used for collecting the information [30]. The studied subjects completed the questionnaire related to pre-test and then the military training of 16 weeks and the first semester of 2010-2011 conducted for them. The military course had two sections: sin and curriculum program. Sin program included all students' activity from the time of awaking to the sleep time and the curriculum program including all theoretical and practical basic combat training, ideological and conservation training and training camp military during 16 weeks of military training. Therefore, there was special program for every moment of students' life during military training. At the end of the term, these people again filled the questionnaire related to post-test stage. Personality questionnaire of *Bernreuters* that is more appropriate for the age group between 19 and 25, have 125 questions that the subjects give answer to it by "yes", "no" or "I don't know" and based on these answers, 6 personal characteristics of person are identified. In fact, the *Bernreuters* personality inventory investigates 6 aspects of personality. Therefore, the answers are corrected 6 times and each correction reveals one aspect. 6 focused aspects are: neurotic tendency, self-sufficiency, extroversion-introversion, dominance, self-confidence and sociability. The score given to each question in each of scales is determined based on their personality value and it is varied between -7 to +7. This value is between -8 and +8 for F scale. The score of each subject for each scale is the sum of his positive and negative scores. In case the subject did not respond to a question, that question was given mark "?". After obtaining the compulsive score, the percentage scores were calculated by using table. Score higher than 50% in the first scale is a sign of instability and lack of emotional balance, in second scale it was sign of self-sufficiency, in the third scale it was sign of introversion, in forth scale it was sign of dominance, in fifth scale it was sign of nasal and in the sixth scale it was sign of being isolated. The reliability of this questionnaire is between 0.78 and 0.92 by using test-retest method [30]. Also, the reliability coefficient for each trait was calculated through half method by *Ramazaninejad* and using the Spearman

formula that in various scale shad the index between 0.85 and 0.92 [4]. The validity of this questionnaire for various scales was between 0.79 and 0.94 [30]. Due to the nature of research, descriptive statistics was used for describing, classifying, setting the raw scores through calculating the average, standard deviation, and plotting the graphs and in the inferential statistics section Kolmogorov-Smirnov test was used for investigating the normality of data and finally for test hypothesis T-test was used. For analyzing data SPSS 16 software was used and the level of significance for all hypothesis was  $\alpha=0.05$ .

## Results

The age range of studied subjects was between 18 and 24. The average of their age was  $19.56 \pm 1.57$ , the average of their weight was  $66.95 \pm 9.69$ , the average of their height was  $175.94 \pm 6.35$ cm and their diplomas' average was  $16.04 \pm 1.75$ . The average and standard deviation related to each of personality characters of subjects in pre-test and post-test stage has been brought in Table 1.

**Table 1-** Average and standard deviation of personality trait of subjects in pre-test and post-test stage

Stage→	Pre-test		Post-test	
	Average	Standard deviation	Average	Standard deviation
<b>Personality traits↓</b>				
<b>Neurotic tendency</b>	-42.77	46.37	-76.31	56.58
<b>Self-sufficiency</b>	-16.69	35.09	2.83	35.16
<b>Introversion and extroversion</b>	-13.77	26.07	-35.03	38.84
<b>Dominance</b>	12.26	27.71	49.20	38.81
<b>Self-confidence</b>	13.17	47.84	-29.97	74.84
<b>Sociability</b>	-47.43	46.30	-27.40	48.30

In the personality trait of subjects including neurotic tendency, self-sufficiency, introversion and extroversion, dominance, self-confidence and sociability, there was significant difference in pre-test and post-test stage (Table 2).

## Discussion

According to the findings of research, the period of military training had significantly positive effect of the personality trait of neurotic tendency that is at the end of this period, the subjects had tendency of stability and emotional balance and their neurotic tendency had been decreased that this finding is in accordance with many sport research conducted in this domain. Among these research are the research conducted by *Mareh* et al. [12], *Ramazaninejad* [4], *SeyedAmeri* [8], *Saint*

[13], *Asadpoor* [9], *Fillho* et al. [14], *De Moor* [15] and *Donald* [16] that each of them in different ways showed that physical activity increases the emotional balance and the reduction of neurotic tendency. However, it seems that the inherent characteristics of military training such as being away from home and family, changing of life style, changing of dietary habits, dominating of severe disciplines, changing in

sleep rhythm and awaking, continuous physical activity, etc. [20] can affect the personality trait of neurotic tendency in students.

However, probably of gaining higher fitness by untrained subjects during the period of military training activities, caused the maintenance of optimal level of neurotic level in students despite of all problems.

**Table 2-** Comparison between the personality trait of subjects in pre-test and post-test stages

Index→ Personality trait↓	Average difference	Difference of Standard deviation	Difference in the errors of standard average	Degree of freedom (df)	Dependent T-test	Level of significance
<b>Neurotic tendency</b>	33.45	63.27	6.17	104	5.43	0.001
<b>Self-sufficiency</b>	-19.51	52.98	5.17		-3.77	0.001
<b>Introversion and extroversion</b>	21.25	38.84	3.79		5.60	0.001
<b>Dominance</b>	-36.94	45.04	4.39		-8.40	0.001
<b>Self-confidence</b>	43.14	92.35	9.01		4.78	0.001
<b>Sociability</b>	-20.02	64.36	6.28		-3.18	0.002

*Fasting* [31] and *Esmail & Young* [32], also, in some research demonstrated that high physical fitness causes the reduction of anxiety, hopelessness, and anger and increases the self-confidence and emotional stability. On the other hand, this result is to some extent is in consistent with the findings of *Sadeghnia* [19], but is in consistent with the results of *Khadem Al Hussein* research [20]. It seems that one of the main reasons of this difference is due to the subjects of two researches. In our study all the selected subjects were non-athlete. This is while, in the research conducted by *Khadem Al Hussein*, between 311 subjects participated in the research, 38.3% were doing physical exercises daily, 35.4% do it weekly and 26% of them do that sometimes, and since the athlete are in better position with respect to emotional balance and stability [4, 8, 12, 13, 14, 15], military training did not have significant effect on their mental health and emotional balance.

By investigating and analyzing the results of personality trail of self-sufficiency and observing the significant negative effect between pre-test and post-test , it can be concluded that military training caused students to escape from others encourages and empathy and being involved with self-sufficiency and isolation that is in inconsistency of the studies of *Ramazaninejad* [4], *Seyedameri* [8], *Asadpoor* [9], and *Brand* [18]. Maybe this difference is due to the dramatic difference between two military and sport environment.

In the physical training environment, besides learning different skills, people use the guidance of different trainers in the method of performing skill and play; when they achieve score, they are encouraged by their trainer and playmates. Therefore, they don't be self-

sufficient and isolated anymore [9]. This is while the dominant situations on military environment can cause isolation, self-sufficiency, and depression of forces, especially entering forces. The findings of *Gulec* [25] and *Xiong* [24], is, also, in accordance with the findings of this research. It is probable that the high difference between military environment and the previous life environment, strict rules and military rules and heavy physical activity are the main reason of such results in militaries [33].

Based on the findings of research, the scores for personality traits of extroversion and introversion of subjects have significant effect before and after the military service that shows the effect of military training on this personality trait. That means that subjects were more extroverts at the end of military training. Extrovert people are rarely worried. They, usually, do not suffer from emotional disorders and they do not let the fanaticizing to be dominant on them [30]. This result is in accordance with the results of findings of *Ramazaninejad* [4], *Egloff* and *Gluhn* [10], *SeyedAmeri* [8], *Saint* [13], *De Moor* [15], and *Donald* [16] in the sport domain and it is consistent with the findings of *Daneshfard* [21], and *Chaturvedula* [26], in the military domain. However, it is inconsistent with the findings of *Asadpoor* [9], *Gontang* [11], *Maresh* et al. [12], in the sport field. Probably this difference is due to the type of sport in sport research that in these three researches they have been individual sport type. Achieving success in individual fields depends on the efforts of an individual and this issue can be effective in creation of daydreaming and acquisition of introversion mode in individuals [9]. However, one of the main preconditions of military training in different parts of worlds emphasizes the

team work and obtaining harmony in various activities including a parade, gathering lines, team sport, tactics and military movement. Similarly, *Daneshfard* [21] shows that subjects increase their responsibility and working spirituality during military training that these factors probably have been involved in increasing communication skills and higher extroversion.

The results of research showed that military training causes the increase of the senses of tyrants and self-confidence. These results, also, are in consistency with the findings of researches conducted by *Ramazaninejad* [4], *Asadpoor* [9], *Rattanakoses* [17] and *Young* [32]. Regular participation in physical exercises causes people to increase physical strength. Besides they can obtain different skills and obtain right better understanding of themselves by correct implementing of these exercises [34].

High fitness and right performance of skills results in obtaining scores and overcoming the opponents which can be involved in increasing the sense of dominance [9]. Also, these results are consistent with findings of *Daneshfard* [21] in military field. Since regular participation in all developed programs, complete learning and non-defect implementation of military skills and tactics, familiarity with military equipment, knowledge of military power of country and obtaining the belief in overcoming the enemies are the main purposes of military training in officers university, it seems that this can increase the self-confidence and dominance of students during the military training. This is while this finding is inconsistent with the findings of research conducted by *Schmidt et al.* [22] which can be originated from the dominant conditions of military environment inside and outside of the country. Existence of high stressful conditions during military training in the research done by Schmidt led the subjects suffered from severe anxiety and worries; their self-confidence reduces that is accompanied with panic attacks and phobias. This is while, the dominant spiritual conditions in our military environments especially in Officers University causes the self-confidence and morale of defeating the enemies.

Also, according to the findings of research, military training can reduce the trait social personality trait of subjects. This finding objects the sport research such as the research conducted by *Vilhjalmsson* [35] and generally it objects to the socialization through exercises and team work, and, it; also, disagrees with the findings of *Daneshfard* [21].

Although definitive statements in this regard needs further studies and research, but it is likely that entering the militarism and being selected as students of office military training period leads to significant

changes in personal, family and social life of people. Since this critical period with all its advantages, have a lot of stress. Emphasis on security consideration and speech data protection during military training, probably, can abdicate people from having relationships with others and isolation and withdrawal of them. This causes the adaptive problems and it shows itself in form of mood changes, depression, and non-sociality. This is while, that the research of *Daneshfard* was done in a camp and on the soldiers. However, according to the findings of *Oltmanns* [23], (that showed that anti-sociality of subjects reduce two years after recruitment in military forces), we can be hopeful about creation of positive changes in social mode of students which is the result of adaption to the situation. Considering the findings of this research, it is suggested that the planning authorities of military training of military training university make the reduction of depression and mal-socialization with related and appropriate psychological and consulting interventions appropriate with the special conditions of entering forces to military environments, and be influential in making better interpersonal relationships and removing the people from the isolation mode.

## Conclusion

Military training is effective on all six investigated personality factors, that is implemented programs and activities during the military training causes the increase of emotional balance, extroversion, self-confidence, and sense of dominance in students. However, these programs make non-sociality and the state of self-sufficiency and isolation in students that this issue needs making preventive measures and early preventive actions.

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