Relationship between general military service and development of personality skills

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Abstract
Aims: Training has great importance for the military forces of the country and has various effects on soldiers’ capabilities. This study was conducted to evaluate the effects of general military service on the development of soldiers’ personality skills in a military training center.

Methods: This quasi-experimental study was performed on 230 conscripts who were dispatched on April 21st 2010 and were selected by random sampling method in one of the military training centers of NEZAJA. Data was collected using pre-test and post-test by a researcher-made questionnaire based on the five-factor model of personality (with making some changes in the model). Personality skills were operationalized based on seven components of personal experiments, self-confidence, programming, influence and perfection seeking, communicational skills, teamwork skills and responsibility. Data was analyzed by descriptive statistical methods and paired T-test using Minitab 15 software.

Results: The obtained average of personality skills showed a significant difference in pre-test and post-test (p=0.0001). The component of influence and perfection seeking (19.83%) had the highest change and teamwork skills (6.43%) had the lowest change in mean, between the two tests affect the development of soldiers’ personality skills with acceptable significance. The mean age of 25.1 years for the test samples, the briefness of the course and gaining some of these skills during the university education and work experience prior to the military services are considered to serve the most important causes of lower change in the components’ average.

Keywords: Personality, Conscript, Military Service

Introduction
Defending of the territorial integrity of the country and independence of the Islamic Republic of Iran and the lives, properties and honor of its people is the religious and national duty of every Iranian and by virtue of the axiom number 150 of the Constitution, all people must always defend the country in order to achieve the higher goals of the Islamic Republic regime. Thus, several thousands of the talented young forces enter the military and police organizations annually and serve for these organizations as the military service for a determined period. This vast majority is the active force and the national security provider in time of military service and will become the labor and productive force and future manager of the country [1].

Today’s workplace, especially in the defense and military fields which are necessary fields in every country, needs people who can intelligently and adopt the appropriate procedure without any guideline and feel they share the best ideas with their managers and this can be achieved by receiving appropriate trainings [2]. McDonnell considers education necessary for the empowerment of employees in a way that they can work in challenging and hard conditions [3]. Education is a communicational process which helps individuals to gain new knowledge and skills. An educational program which is comprehensive and well-designed can bring a person to a good health. Education process will not be complete unless its results are evaluated. One of the most important aspects of evaluation and assessment is reviewing the results of the training effect in the military field on the personality and the personality components of the staffs [4].

Personality is one of the effective factors in the development of individual differences. Personality is a set of personal attributes and characteristics which can be used to compare individuals with each other. In fact, the definition of the personality depends on the scientist's viewpoint of his particular theory. However, based on the above definitions, a relatively comprehensive definition of personality is presented in this way: “Personality is the organized and unified set of relatively stable characteristics which distinguishes one individual from other people” [5]. The comparison of individual differences to the cut-formed dilemma
sets forth this question that how the source of these pieces and their internal connection is formed. Perhaps the best answer is that the forming factors of the personality are determining factors, growth stages and characteristics [6].

In the theory of traits, a combination of traits which are the best reflects of the personality are tried to be identified. The basic view of this theory is that the human being has a broad readiness called traits and respond to stimuli in specific ways. In other words, people can be described in terms of risk behaviors, feelings and thoughts in a particular way. Although the trait theorists have different opinions about the way of existing traits which make the human personality, they all agree that traits form the key elements of the human personality.

Factor models of personality are popular as the alternative models and the supplementary models of typology from mid-1960s with the development of the personality trait approaches. The most important factor models of personality can be cited three-factor Eysenak model including neurosis, psychosis and extroversion and the sixteen-factor Kettle model including warmth, rationalization, emotional stability, dominance, vitality, rules respect, courage, sensitivity, awareness, abstractionism, self-contained, fearlessness, variability, self-esteem, and perfectionism. In the evolution of these models, the five-factor traits model was raised for the first time in 1980s by Louis Goldberg. This model was confirmed in the early 1990s by the innovation and distribution of the neo-five-factor tests by Costa and McCrea as the major five-factors, and had formed to its modern evolution after several steps of reformation [7]. The five-factor model of personality was raised through many studies which had been performed using the factor analysis and the centrality of the personality traits [8]. In other words, by using the factor analysis, Costa and McCrea had concluded that five major factors can be considered among the individual differences in the personality characteristics: neuroticism (N) refers to the person's tendency to the anxiety experience, stress, compassion, hostility, impulsivity, depression and low self-esteem. However, Extroversion (E) refers to the person's tendency to be positive, bold, high energy and friendly. Openness (O) refers to the person's tendency to the curiosity, love of art, artist, flexibility and intellect, while adaptation (A) refers to the person's tendency to generosity, kindness, empathy, sympathy, altruism, and having confidence. Finally conscientiousness (C) refers to the person's tendency to tidiness, efficiency, reliability, self-regulation, being achievement-oriented, rationalization and tranquility [9].

Various studies had been done on the effect of various trainings on improving health, quality of life, social responsibility, and finally the physical and mental health such as the study of Leily Mosalla-Nejad et al. with the subject of “providing a combination training program course and studying its psychological effects on students” which was done on 41 nursing students of Jahrom University of Medical Sciences. The results of this study had shown that there was a significant difference between the mean scores of neurosis, openness, and responsibility [10].

Nastizayi N. and Hezare Moghadam M. conducted a research in 2010 with the subject of “comparison of effect of the direct and indirect short-term training courses on the psychological empowerment of employees”. In this quasi-experimental study, 60 managers and deputies of different education levels of Zabol had participated in three days of educational leadership were studied in two experimental and control groups. Finally, researchers found that the direct short-term training courses were more effective than indirect short-term training courses in the empowerment of employees [11]. Hutchinson et al. also conducted a research in one of the U.S. military centers to investigate the relationship between the job responsibility training and factors such as education, gender, physical activity and drug dealing [12]. But most studies on the military fields in Iran were conducted on the soldiers’ personality factors and the military training has emphasized on the soldiers’ behavioral problems and less focused on the aspects of the soldiers’ personality development. In addition, some studies were done on the effectiveness of training courses in the civilian areas. The human resources deputy of a military organization in Iran has concluded after a comprehensive study in 2000 that intra-organizational factors such as appropriate reward and punishment with appropriate tools is important in increasing the military forces’ self-esteem [1]. Seyed Hamid Reza Moosavi and Rooholah Mahboob in a study with the subject of “investigating the mental health status of soldiers in a military organizational unit” in 2006 have found that this organizational unit soldiers have moderately shown the symptoms of anxiety, depression, hypochondriasis and aggression, respectively [1]. Farahi Bouzanjani et al. have performed a study on 190 soldiers of a military unit with the subject of “Study of the behavioral problems of an organizational unit soldiers”. They found that the managerial factors (including interactive destructive behaviors of the commanders with soldiers), personal factors (including the usual destructive behaviors of
soldiers in the military base), interaction factors (interactive destructive behaviors of soldiers in the military base), psychological factors and organizational factors are the most important factors of the soldiers’ behavioral problems, respectively [1]. In the study of Ali Fathi-Ashtiani and Aref Sajadehchi, all soldiers of four training courses including 4196 subjects were studied as groups using census sampling method. The obtained results showed that 16.2% of subjects had psychological problems. Married individuals compared to single ones, those whose one parent had died compared to the individuals with both parents dead or both alive and those who were in charge of the family had more psychological symptoms. The results also showed that the most common symptoms were related to obsessive-compulsive signs, suspicion and pessimism, the sensitivity of interpersonal relationship and physical complaints [13]. Farsi in a study on soldiers stated that 57.8% of subjects were suspected of mental disorders. In his research, the subscale of the physical symptoms 46.8%, anxiety and insomnia 46.5%, social functioning 38.9% and depression 62.1% were in the group of healthy volunteers [14].

Based on the abovementioned issues and the importance of training in military units and its different personality and behavioral effects on the capability and development of military forces, this study was conducted to evaluate the effects of general military trainings (basic combat course) on the development of soldiers’ personality skills in a military training center.

Methods

This quasi-experimental study was performed in two stages of pre-test and post-test to measure the effects of independent variable on the dependent variable. The participants of this study were more than 2100 conscripts from a military training center with B.A, M.S and PhD degree who were dispatched on April 21st 2010. 230 soldiers were selected by random sampling method. The sample size was estimated 200 subjects based on the statistical distribution of the Cochran formula. In each stage, after coordination with commanders, battalions, and students’ units, the research project was explained for the conscripts of some units who were randomly selected. Finally, 300 questionnaires were distributed among the subjects, and 200 and 235 samples were completed and collected by the soldiers in the first and second stages, respectively. Other questionnaires were excluded from the study due to the defects in the completion.

In general, the general military service period in this training center took two months that began at the beginning of even months. Soldiers were randomly divided into training units. During the two-month period, they were directly and indirectly placed into the elementary combat training (theoretical and practical), ideological and political training (theoretical), familiarity with the teachings of war (theoretical) and training camps and shooting trainings (practical). At the end of the period, a complete evaluation was done about the educational content that the results of this assessment were the basis for granting the degree, and the division of conscripts in different centers.

The subjects were evaluated via the five-factor model of personality questionnaire (with making some changes in the model). The pre-test questionnaire contained 30 questions and the post-test questionnaire contained 28 questions to measure the model components. Both questionnaires were researcher-made and designed based on 5-option Likert scale and the standard questionnaires for each component. At the beginning of the questionnaire, the questions related to the demographic data including age, degree and major of study and work experience before starting the military service. In both questionnaires, 7 main components introduced in the model were operationalized (including the components of influence and perfection seeking, communicational skills, self-confidence, programming, responsibility, personal experience, and teamwork skills). The validity of both questionnaires was verified by the experts (including academics and military commanders of units) by Delphi method and their reliability was assessed using Cronbach’s alpha which was obtained 0.87 for the pre-test questionnaire and 0.81 for the post-test questionnaire, and the reliability of the questionnaires was confirmed.

The collected data was analyzed using Minitab 15 software and descriptive-analytical methods. Regarding the normality of the variables (which was separately confirmed for the data related to each component with the software), data was analyzed using parametric statistical methods and paired t-test with 95% reliability.

Results

The mean age of the subjects was estimated 25.1. 88% of soldiers had bachelor's degree and 12% had master’s degree. Regarding the University majors, 41% of subjects were graduated in technical and
engineering majors, 38% of subjects in humanities, and 21% in empirical sciences (including basic sciences, medicine science and agriculture). Besides, 56% of soldiers had work experience before starting the military service and 44% of soldiers had no work experience.

The obtained mean for the dependent variable i.e. the personality skills in the pre-test and post-test were 3.369 and 3.855, respectively and showed a difference of 14.42% which was statistically significant. Meanwhile, the component of influence and perfection seeking had the highest changes and the teamwork component had the lowest change in mean. All components of the dependent variable showed significant differences between the mean of two tests (Table 1).

Table 1- Results of paired t-test to assess the significant differences between pre-test and post-test mean of the dependent variable and its components

<table>
<thead>
<tr>
<th>Variable</th>
<th>Pre-test mean</th>
<th>Post-test mean</th>
<th>Level of changes (percent)</th>
<th>T value</th>
<th>Significance level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Influence &amp; perfection seeking</td>
<td>3.262±0.730</td>
<td>3.909±0.710</td>
<td>19.8344</td>
<td>-9.34</td>
<td>0.0001</td>
</tr>
<tr>
<td>Programming</td>
<td>3.368±0.706</td>
<td>3.957±0.767</td>
<td>17.4881</td>
<td>-8.27</td>
<td>0.0001</td>
</tr>
<tr>
<td>Responsibility</td>
<td>3.542±0.708</td>
<td>4.141±0.818</td>
<td>16.9113</td>
<td>-8.09</td>
<td>0.0001</td>
</tr>
<tr>
<td>Personal experience</td>
<td>3.243±0.575</td>
<td>3.720±0.735</td>
<td>14.7086</td>
<td>-7.43</td>
<td>0.0001</td>
</tr>
<tr>
<td>Self-confidence</td>
<td>3.334±0.614</td>
<td>3.774±0.720</td>
<td>13.1973</td>
<td>-6.79</td>
<td>0.0001</td>
</tr>
<tr>
<td>Communicational Skills</td>
<td>3.270±0.783</td>
<td>3.601±0.788</td>
<td>10.1223</td>
<td>-4.38</td>
<td>0.0001</td>
</tr>
<tr>
<td>Teamwork</td>
<td>3.654±0.753</td>
<td>3.889±0.696</td>
<td>6.4313</td>
<td>-3.37</td>
<td>0.0001</td>
</tr>
<tr>
<td>Personality Skills</td>
<td>3.369±0.718</td>
<td>3.855±0.763</td>
<td>14.4256</td>
<td>-7.12</td>
<td>0.0001</td>
</tr>
</tbody>
</table>

In investigating the relationship between the demographic characteristics of the soldiers and the development of their personality skills, there was a significant difference between the mean of bachelor’s level, all educational majors and also having or lack of work experience, whereas in master’s degree, there was no significant difference between most components.

**Discussion**

The conceptual model of this study was designed based on the five-factor personality model. Many researchers have been introduced indicators and definitions to measure these factors which were considered questionnaires designed for this study along with several other personality tests [16, 17, 18, 19, 20, 21, 22]. In the present model, the personality skills were measured by the factors of influence and perfection seeking, communicational skills, self-confidence, programming, responsibility, personal experience, and teamwork skills. In this model, the operating neuroticism factor was made as a picture in the form of the personal experience component. The introversion factor was considered as communicational skills and the adaptation factor was considered as the influence and perfection seeking with a little change. The conscientiousness factor was examined in the form of three components of self-confidence, programming, and responsibility. In the five-factor model, the adaptation factor was omitted due to the lack of compliance with the sample condition and experts’ opinions, and instead the teamwork skill was examined in the model because of its importance.

Sadeghinia in his study on the impacts of the military training of some elements of physical fitness and mental health of soldiers found that the military training courses had affected the conscripts’ mental health and caused the improvement of the subjects’ mental health [22]. In the study of Khadem-ol-Hosseini M., 311 military college students who were in general training courses in 2009 were studied by the Goldberg Health Questionnaire (GHQ-28). In this study, there was no significant difference between the mean scores at the beginning and end of the training period based on the Wilcoxon test. But there was a significant difference between the scores of the first domain (physical symptoms) and the third domain (social function) before and after the period. Eventually, they stated that although the inherent features of the military training on had a negative effect on the students’ mental health, the applied arrangements during the training period had caused the mental health of students [23]. The results of the present study which approved the significant effect of general military training periods on the soldiers’ personality skills were largely consistent with the results of Sadeghinia’s study, but was not consistent with the results of Khadem-ol-Hosseini et al’s study. In the study of Sadeghinia which had been done on the employees of a military unit in a training period, the significant effect of the military training on mental health of soldiers were mentioned, whereas Khadem-
Changes in the components of the model have been stated more than 6% in the teamwork skills and were calculated about 20% in the influence and perfection seeking. The increase of the percentage of change in the components of the influence and perfection seeking can be accounted for delegation of the responsibilities of the group commander, primogeniture as training in the parade and line up drill which strengthened the ability to lead and the influence in the command words in the students. Two components of responsibility and programming were more than the medium changes. The same reasons can be outlined in the components of responsibility and programming. The exact schedule of the center’s activities and the limited time to rest had caused; first, students attempt to use the least opportunity to work on their activities; and second, whatever activity shall be carried out in the determined time regarding a employed severity. The components of personal experience, communication skills and self-confidence level were at the medium level in the increase which could be related to the moral issues of the students and subjects to separation from family. Being in difficult circumstances and different stresses and also being far from family and the psychological operations which occur in the military training period can be an exercise to reduce neuroticism and increase personal experience and maturity of the personality, although it can be the opposite in some cases. Finally, the component of the teamwork skill had a very small increase. Factors such as the structure of the working team in the unit which is random and nonselective, rewards and punishment system which are inconsistent with the accepted principles of the motivation management and the expectations of the senior of teams and subjects and the obvious difference between these two were the affecting factors on this situation.

After summarizing the findings of this study, the following suggestions can be presented to increase the effectiveness of the military training periods and their higher effectiveness on individual and interpersonal personality skills of soldiers:

1) Development of an integrated program to develop the competencies of the soldiers’ personality, career and life in the center.
2) Reinforcement of the consulting courses in the military training centers so that the advisers are able to control the conscripts’ activities in units and provide necessary guidelines to reduce the behavioral problems and deficiencies and develop conscripts’ personality skills besides commanders and officers.
3) Psychological and personality analyzing of conscripts in each unit at the beginning of the period and focusing on the components which are located in
the lower levels in the general evaluation of the unit. This can be done using standard personality tests by consulters and even the commanders of the units and necessary guidelines may exist to develop and improve the required skills at the beginning of the period.

4) Making changes in the structure of the teamwork activities in the units and motivation management with the tools to assess the performance of the teams and presence of an appropriate reward and punishment system to provide the maximum motivation for conscripts’ success in the team (not merely personal success).

5) Strengthen the responsibility and self-confidence of the conscripts by providing additional training for those who take responsibility as a senior of the unit or senior of major activities.

6) Targeting the sport programs and physical fitness as well as the religious and cultural programs to reduce anxiety, depression and other natural side effects of the military training to create happy and refreshed moods and make them forget the constraints and concerns because of being away from their families.

It is worth to mention that the type of the presented trainings in the studies center that generally included military trainings, in a military environment and were also obligatory, may limit the generalizability of the results of this study to other military service training centers especially in administrative and business fields. The ruling educational views of the studied center and the presence of conscripts with bachelor’s academic degree and higher cause some limitations in generalization of the results of this research to other military training centers (especially those training conscripts with diploma and below diploma degrees).

Conclusion

General military training courses were effective on the development of the soldiers’ personality skills with acceptable significance. The mean age of 25.1 years for the test samples, the briefness of the course and gaining some of these skills during the university education and work experience prior to the military trainings in the studies center that generally included military trainings, in a military environment and were also obligatory, may limit the generalizability of the results of this study to other military service training centers especially in administrative and business fields. The ruling educational views of the studied center and the presence of conscripts with bachelor’s academic degree and higher cause some limitations in generalization of the results of this research to other military training centers (especially those training conscripts with diploma and below diploma degrees).

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