

# **CORRELATION BETWEEN SPORT, MOTIVATION FOR SPORT, GENERAL HEALTH, SATISFACTION WITH WORK AND LIFE IN SLOVENIAN ARMED FORCES**

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## **ABSTRACT**

The basic aim of the research was to discover the meaning of sport, its value among the soldiers and officers and its motivational effect and the correlation between sport in the army and general health and satisfaction with work and life. We tried to research the positive effects of sport on the work efficiency in Slovenian Armed Forces. We isolate the motiv and value sport among all values to explore the possibilities how to stimulate motivation for sport activity in the army. Different well known sport psychological measurements and tests have been used such as Self motivation Inventory, Participation (in sport) Motivation Inventory, Values Scale, Work Motivation, General Health Questionnaire, Attitudes Toward Sport, The Scale of Intension to Leave Work in Army, Work Efficiency Scale, Satisfaction with Life Scale, Body Mass Index and others. 141 subjek were involved into the research (75 sodiers and 66 officers in Slovenian Armed Forces). The results showed many useful data. Body Mass index is positively related to the years, employed in Slovenian Armed Forces. There is a positive connection between attitudes toward sport and general health and satisfaction in work. There is also a positive connection between sport attitudes and work efficiency. The main sport motive for the employers in Slovenian Armed Forces are: they like friendship and brotherhood through sport, they want to stay fit and they want to learn new sport skills. Those, who want to stay employed in Slovenian Armed Forces, they also have more positive attitudes toward sport. Through these results we can confirm very positive effects of sport on the general life and work in the Army. New researches should follow to discover more directions for practical suggestions.

## **INTRODUCTION**

The army represents a special area of a person's life and work with specific working conditions, which require a lot of mental and physical strain. The armies worldwide have been increasingly integrating and performing common tasks, such as peacekeeping in war zones or common actions in combat in different war zones of the world with various conditions (climatic, geographic, cultural, etc.). For that an individual has to be well-prepared for such conditions. Systematic physical training is required in order to increase resistance of the soldiers to the harsh climatic conditions.

Positive aspects of physical exercise can be achieved when the exercise is based on the principles of sport recreation and fulfils its purpose and objectives (Tkavc, 2004). Numerous researches confirm positive impact of sports activities on the maintenance and improvement of health. Active individuals experience improvement in mental and physical characteristics, they look better, feel better, and rehabilitate faster. The most important aspect is the pleasure experienced by those who are regularly active. Moderate sports activity strengthens the immune system and is physically and mentally relaxing. It reduces the amount of stress hormones in the organism, which improves the immune system and increases the body's resistance to infection (Ihan, 2000). Misigoj-Durakovic (2003) stated that physical exercise brings about a number of physiological and biochemical changes in the organism and changes in the manner of thinking and experiencing oneself and the environment. All that leads to better mental functioning. Basic condition to achieve that is pleasure and satisfaction during the exercise routine. According to Tomori (2000), sports influence person's mentality as well.

Motivation is a process, while motives are stimuli, which direct and manage the activity. Motives stimulate and determine human behaviour every time a wish for a certain goal arises (Kronja, 1966). Motives as a mobilising dimension of a person's psychosomatic status release the lever which determines whether a person will be active in sports or not. An important set of motivation is also self-motivation, which expresses the capability of motivation self-control. Individuals with high self-motivation level prepare and motivate themselves and work independently, without any external support or "pressure".

The concept of subjective well-being is general and global and can be generally defined as assessment of well-being, satisfaction and happiness. Satisfaction with life represents a basic

component of subjective well-being, in addition to the positive and negative affect. According to Diener (2000), the concept of subjective well-being also includes optimism and the sense of fulfilment. “Subjective satisfaction with life is a compromise between what is important to us and what we can actually achieve, considering the environment we live in” (Pychyl & Little, 1998). Several researchers (Diener & Biswas-Diener, 2000; Diener, Suh & Oishi, 1997; Myers & Diener, 1995) established that in general people are satisfied with their life. Numerous researches (Diener et al., 1997; Myers & Diener, 1995) stated that people, who are more satisfied, are also more successful in various areas of life; satisfaction is related to successful outcomes.

We wanted to examine various psychological characteristics of life and work in the Slovenian Armed Forces. The basic aim of the research was to discover the meaning of sport, its value among the soldiers and officers and its motivational effect and the correlation between sport in the army and general health and satisfaction with life. We tried to research the positive effects of sport on the work efficiency in the Slovenian Armed Forces.

## **METHOD**

### **Participants**

141 employees of the Slovenian Armed Forces (75 soldiers and 66 officers) collaborated in the research. In our sample were included employees of Slovenian army from seven different units.

### **Instruments**

- **Participation Motivation Questionnaire: PMQ** (Gill, Gross & Huddleston, 1983) with a list of 30 potential motives or reasons for sports participation. This questionnaire is particularly intended for young, who are active in sports, and the motivation of whom is still very diverse. The respondents evaluated each reason on a three-level ordinal scale (Very important; somewhat important; not important). In our research we adjusted this scale to a 50 mm graphic scale in which the left side indicated “the reason is irrelevant for me” and the right side indicated “the reason is highly important for me”.

By using factor analysis of the reasons, the authors obtained the following main factors or incentives:

1. *Success and productivity* (e.g. "I like winning")
2. *Team atmosphere* (e.g. "e.g. I like groupwork/teamwork")
3. *Friendship* (e.g. "I like spending time with my friends")
4. *Recreation* (e.g.. "I like to get out of the house")
5. *Relaxation and releasing the superfluous energy* (e.g. "I want to release tension")
6. *Developing abilities* (e.g. "I would like to learn how to train/practice")
7. *Fun* (e.g. "I like having fun").

The importance of individual goals or of an individual incentive is used as attractiveness of a motive or incentive and as its valence in a motivational situation. The authors have reported factors with various levels of reliability, between 0.30 (friendship) and 0.78 (team atmosphere). Although the authors did not indicate any norms, they presented the results obtained from the sample of 720 boys and 418 girls. The results cannot be compared to ours, since the scale has been adjusted. The questionnaire was translated with permission and adapted for the purpose of researches (Tušak, 1996). In our research we also obtained seven factors, which are represented and described in results. Cronbach's alpha coefficient in our study is 0.94. Cronbach's alpha coefficients for separate factors range between 0.89 (*the motives of social recognition*) and 0.54 (*the motives of competence and promotion to a higher level*).

- **Satisfaction With Life Scale – SWLS** (Diener, Emmons, Larsen & Griffin, 1985). Between different components of subjective feeling of well-being this scale is narrowly focused on measuring general satisfaction with life and refers to similar constructions as positive affection and loneliness. It presents a cognitive aspect of satisfaction with life. Result on the scale can be labelled as an individual's global estimation of quality of their life according to personal criteriors. The scale consists of five items to which an individual has to answer on the scale from 1 (not true at all) to 7 (completely true). For the end result we scored the average of the answers. Cronbach's alpha coefficient in our study is 0.87.

- **General Health Questionnaire - GHQ** (Goldberg, 1972). We were finding out the lack of health. It is a sift instrument for discovering psychiatric disturbances in residential communities as primary care or general practice. The instrument was adapted for use for the

purpose of this study. It consists of 13 questions to which the participant has to answer on a scale from 1 (not at all) to 5 (a lot more than usually). A high number of points means absence or lack of health (an individual has problems with sleeping, concentrating, is unhappy, irritable and depressive, has lost faith in him/herself and his/her abilities...). For the final result we scored the average of the answers. Cronbach's alpha coefficient in our study is 0.92.

- **Self-motivation Inventory** (Dishman, Ickes & Morgan; 1980) includes 40 statements, which measure:

- *Self-motivation or internal motivation of subjects* (e.g. "It is not really easy to promise that I would do something for sure" or "Whenever I undertake a difficult task I decide to persist until I finish it").

The respondents give answers on the basis of a five-level scale (1 = I completely disagree, 5 = I completely agree). For the final result we scored the sum of the answers. The authors reported the alpha reliability coefficient between 0.86 and 0.91. The coefficient obtained by the test-retest method is  $r = 0.92$ . They also reported a high positive correlation with the Thomas-Zander Ego Strength Scale. The results of the scale are also correlated with the attachment to certain training programmes or certain sports activities. Cronbach's alpha coefficient in our study is 0.89.

- **Work Efficiency Scale;** It is composed of 19 statements to which the participant answers on a five level scale (1 not true at all for me and 5 completely true for me). The statements are created in a way that show participant's preparedness for fulfilling everyday work duty and the biggest emphasis is on his psychophysical readiness. The results show individual's interest for good performing of defined motive tasks, his motivation, interest, effectiveness and reliability.

- **Values Scale** (Musek, 1993, 2000); It is composed of 54 items, which represent 54 independent values. The participant answers with scale from 1 to 100 in a way he values stated things. The participant's answers enable us to find out his value orientation and value hierarchy. Cronbach's alpha coefficient in our study is 0.95.

- We made questionnaire concerning intention for abandonment of workplace (IAW)(Celin, 2006). It consists of 10 statements. The participant labels how much a statement is true for him/her on a five level scale where 1 means I completely disagree and 5 means I completely

agree. High result means high intention for abandonment of workplace (e.g. search of the other possibilities for work, thinking about the replacement of workplace...).

- For finding out the intention of points of view on sport we composed **The Point Of View Scale On Sport (SS)** (Tušak & Korenjak, 2006). It is composed of 35 statements (e.g. "I like competing at competitions", "Sport represents enjoyment to me"). The participant labels how much a statement is true for him/her on a five level scale, where 1 means I completely disagree and 5 means I completely agree. For the final result we scored the average of the answers. Cronbach's alpha coefficient in our study is 0.92.

- The participants forwarded us some demographic data (age, body weight and height,...) and data about their work in the army (distance from work, satisfaction with the occupation...).

## Procedure

After previous agreement with the Slovenian Armed Forces and their consent to collaborate in the research, we collected data in different units. The testees filled in the questionnaires individually and considering the instruction added. For any possible questions the testators were there to answer so that we explained any possible indistinctness. The filled out questionnaires were collected after the filling in was completed. The data was statistically handled with help of the program SPSS 15.0.

## RESULTS AND INTERPRETATION

*Table 1*

Pearson's coefficients of correlation between motives, values, self-motivation, health, work efficiency, satisfaction with life and the point of view on sport with some demographic variables

| Variables | Distance from work | Quantity of occupation time in SA | Satisfaction with the occupation in SA | Wish to stay in SA |
|-----------|--------------------|-----------------------------------|--|--------------------|
| BMI       | ,02                | ,30**                             | ,10                                    | ,10                |
| SMI       | -,06               | ,29**                             | ,42**                                  | ,34**              |
| SWLS      | -,15               | ,28**                             | ,37**                                  | ,31**              |

|     |      |               |               |               |
|-----|------|---------------|---------------|---------------|
| IAW | ,16  | <b>-,23**</b> | <b>-,58**</b> | <b>-,65**</b> |
| GHQ | ,07  | ,05           | <b>-,22**</b> | <b>-,21**</b> |
| WE  | -,16 | <b>,33**</b>  | <b>,44**</b>  | <b>,38**</b>  |
| M1  | -,15 | ,10           | <b>,28**</b>  | <b>,25**</b>  |
| M2  | -,09 | -,01          | ,14           | ,19           |
| M3  | -,05 | ,03           | ,18           | ,13           |
| M4  | -,10 | ,10           | ,15           | ,13           |
| M5  | -,06 | ,19           | ,09           | ,07           |
| M6  | -,11 | ,06           | <b>,35**</b>  | <b>,32**</b>  |
| M7  | -,10 | -,03          | ,07           | ,08           |
| M8  | -,12 | ,04           | ,21           | <b>,28**</b>  |
| M9  | -,11 | ,06           | ,15           | ,17           |
| M10 | -,02 | ,02           | <b>,31**</b>  | <b>,32**</b>  |
| M11 | -,01 | ,02           | ,17           | ,17           |
| M12 | ,04  | ,04           | ,11           | ,15           |
| M13 | -,11 | -,01          | ,17           | ,13           |
| M14 | -,07 | -,01          | ,07           | ,10           |
| M15 | -,07 | -,08          | ,11           | ,16           |
| M16 | -,05 | ,03           | ,19           | ,21           |
| M17 | ,10  | -,07          | ,15           | ,20           |
| M18 | -,03 | ,13           | <b>,36**</b>  | <b>,40**</b>  |
| M19 | ,02  | ,02           | ,13           | ,11           |
| M20 | -,06 | ,03           | ,15           | ,08           |
| M21 | -,04 | -,04          | ,07           | ,06           |
| M22 | -,03 | ,05           | <b>,26**</b>  | <b>,32**</b>  |
| M23 | ,02  | -,06          | ,14           | ,21           |
| M24 | -,13 | ,11           | <b>,33**</b>  | <b>,29**</b>  |
| M25 | -,10 | ,09           | ,02           | ,03           |
| M26 | -,02 | -,09          | ,17           | ,15           |
| M27 | -,09 | ,04           | <b>,24**</b>  | <b>,24**</b>  |
| M28 | -,15 | ,02           | ,03           | ,07           |
| M29 | ,04  | -,11          | ,16           | ,13           |
| M30 | -,19 | ,05           | ,15           | ,17           |
| V1  | ,06  | ,05           | ,18           | ,15           |
| V2  | -,01 | -,10          | ,01           | ,03           |
| V3  | -,02 | ,16           | ,22           | <b>,22**</b>  |
| V4  | ,13  | ,19           | <b>,25**</b>  | <b>,23**</b>  |
| V5  | ,04  | ,13           | ,21           | ,11           |
| V6  | ,08  | ,00           | ,06           | ,02           |
| V7  | ,05  | ,11           | <b>,34**</b>  | <b>,29**</b>  |
| V8  | ,05  | -,03          | ,09           | ,08           |
| V9  | -,09 | ,03           | -,01          | ,04           |
| V10 | -,02 | ,03           | ,14           | ,15           |
| V11 | -,11 | -,07          | -,06          | -,11          |
| V12 | -,18 | <b>,27**</b>  | <b>,24**</b>  | ,18           |
| V13 | -,10 | ,08           | ,21           | <b>,24**</b>  |
| V14 | -,19 | ,02           | ,18           | ,20           |
| V15 | ,01  | ,03           | <b>,32**</b>  | <b>,26**</b>  |

|     |      |               |               |               |
|-----|------|---------------|---------------|---------------|
| V16 | ,08  | -,16          | ,06           | ,02           |
| V17 | ,04  | -,18          | -,20          | <b>-,25**</b> |
| V18 | ,04  | ,05           | <b>,29**</b>  | <b>,28**</b>  |
| V19 | ,00  | <b>,24**</b>  | <b>,29**</b>  | <b>,24**</b>  |
| V20 | -,14 | ,10           | ,20           | ,16           |
| V21 | -,01 | ,13           | ,14           | ,07           |
| V22 | ,12  | ,02           | ,21           | ,15           |
| V23 | ,09  | ,05           | <b>,32**</b>  | ,20           |
| V24 | ,04  | -,01          | <b>,23**</b>  | <b>,26**</b>  |
| V25 | ,00  | ,19           | ,07           | -,01          |
| V26 | -,07 | -,05          | -,01          | ,05           |
| V27 | -,05 | -,10          | ,09           | ,06           |
| V28 | -,04 | -,06          | -,03          | -,01          |
| V29 | ,09  | ,01           | ,15           | ,12           |
| V30 | ,04  | -,07          | <b>,23**</b>  | ,18           |
| V31 | -,04 | -,10          | ,06           | ,03           |
| V32 | ,02  | -,12          | -,03          | -,06          |
| V33 | -,09 | -,05          | ,21           | ,18           |
| V34 | -,02 | -,08          | ,06           | ,05           |
| V35 | ,11  | -,10          | -,03          | -,05          |
| V36 | ,03  | ,07           | ,02           | ,05           |
| V37 | ,01  | -,06          | ,10           | ,16           |
| V38 | ,09  | -,20          | ,05           | ,06           |
| V39 | -,03 | -,01          | ,13           | ,12           |
| V40 | ,01  | <b>-,31**</b> | <b>-,26**</b> | <b>-,29**</b> |
| V41 | ,06  | -,14          | ,06           | ,07           |
| V42 | ,00  | ,07           | <b>,33**</b>  | ,21           |
| V43 | -,10 | ,02           | ,20           | ,04           |
| V44 | -,03 | <b>,24**</b>  | <b>,28**</b>  | <b>,22**</b>  |
| V45 | -,05 | -,05          | ,06           | ,08           |
| V46 | ,12  | ,02           | ,12           | ,02           |
| V47 | ,13  | -,15          | ,07           | ,01           |
| V48 | -,07 | -,01          | ,16           | ,13           |
| V49 | ,04  | -,15          | ,08           | ,11           |
| V50 | ,03  | ,03           | ,20           | ,18           |
| V51 | ,13  | ,15           | ,19           | ,16           |
| V52 | -,10 | <b>,28**</b>  | -,01          | -,03          |
| V53 | -,01 | ,01           | ,02           | -,04          |
| V54 | ,13  | -,14          | ,06           | -,01          |
| SS  | ,04  | ,09           | <b>,37**</b>  | <b>,30**</b>  |

*Legend:* BMI – Body Mass Index; SMI – Self-motivation Inventory; SWLS - Satisfaction with life scale; IAW - Intention for abandonment of workplace; GHQ – Health; WE – Work Efficiency; SS – The point of view scale on sport; M1 – motive 1, M2 – motive 2... (PMQ); V1 – value 1, V2 – value 2 (Value Scale); \*\* p < 0,01.

As we can see from the table 1 individuals that are longer employed in the Slovenian army are having bigger difficulties with overweight. That is the consequence of irregular sport activity (negative correlation with weekly sport activity). Tkavc in her research in 2004 also found out that more than half of individuals in Slovenian Armed Forces are overweight with

consideration of BMI. It is interesting that more than half of the individuals were doing regular sport activity and only one did not do anything. We could search for the reasons in the organized meals that individuals have in the army. Too much food against the use of calories. The longer employed are also more satisfied with their lives, more efficient at work, with bigger self-motivation, not thinking about leaving their work place. About the value orientation the results showed that they high value moral principles, respect the laws, nationality pride, enjoyment in the art and on the other hand they care very little about food and drink.

We've also found out that individuals who are more satisfied with employment in the Slovenian Armed Forces are more satisfied with life, healthier, more effective in their work and more self-motivated. They also do not think about leaving their work place. They have a very positive point of view on sport, and they are involved with sport activity in the Slovenian Armed Forces because they like comradely spirit, wishing to remain in a good shape, be physically fit and healthy, to improve their skills and learn new skills, they like being the part of the group (team) and they also like the coaches and leaders. Results of value orientation suggested that they high value diligence, sport and recreation, wisdom, creative achievements, sport and movement, nationality pride, training himself, the progress of mankind, the loyalty, respect the laws, patriotism, moral principles and harmony with nature. Individuals who are not satisfied with the employment in the Slovenian Armed Forces highly value good food and drink.

Those individuals who wish to remain in the Slovenian Armed forces are more effective and self-motivated in their work. They also have less health problems are more satisfied with their life and their attitude to sport is positive. They are involved with sport activity in the Slovenian Armed Forces because they like comradely spirit, wishing to remain in a good shape and learn new skills, they like being the part of the group (team), be physically fit and healthy, they like team work, they want to improve their skills and also they like the coaches and leaders.

In a view of value orientation, we can say that those who wish to remain in the Slovenian Armed Forces highly value diligence, patriotism, sport and recreation, loyalty, cohabitation and peace between people, respect the laws, harmony with nature, love of children, nationality

pride and sport and movement. On the other hand, those who do not wish to stay in the Slovenian Armed Forces, highly value a comfortable life and good food and drink.

*Table 2*

Correlation between point of view on sport and work efficiency, lack of health and satisfaction with life

| Variables                     | work efficiency | lack of health | satisfaction with life |
|-------------------------------|-----------------|----------------|------------------------|
| <b>point of view on sport</b> | <b>,31**</b>    | -,14           | ,22                    |

*Legenda: \*\* p < 0,01.*

Table 2 shows that statistically significant correlation appears only between the point of view on sport and work efficiency. The correlation is positive and medium-sized. It means that individuals who have more positive point of view on sport are also more interested, reliable and effective at work.

## **Conclusion**

Through these results we can confirm very positive effects of sport on the general life and work in the Slovenian Armed Forces. New researches should follow to discover more directions for practical suggestions.

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