

Piletic, M., Cabarkapa, M. (2011): Differences in Personality Traits and Motivation for Recreational Practice of Yoga & Fitness in Women. In: P.Nikić, ed. *Proceedings "Yoga – the Light of Microuniverse" of the International Interdisciplinary Scientific Conference "Yoga in Science – Future and Perspectives", September 23-24, 2010, Belgrade, Serbia*. Belgrade: Yoga Federation of Serbia, p. 56-71

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DIFFERENCES IN PERSONALITY TRAITS AND MOTIVATION FOR RECREATIONAL PRACTICE OF YOGA & FITNESS IN WOMEN

Summary. *Based on numerous studies in sports psychology there is a paradigm that the structure of athletes personality significantly differs from non-athletes, as well as understanding that there are significant differences among athletes involved in different sports. That's the basic theory in our research setting, where we have a sample of 160 respondents (women practicing recreation) and we attempted to determine the existence of differences in personality traits, and self-motivation, comparing the group of those involved in hatha yoga (80 respondents), with those dealing with the fitness (80 respondents).*

The study used short form of personality test known as the Five Factor Inventory (NEO-FFI), which measures five basic dimensions of personality to the Big-Five model of personality inventory and DELTA-20 (Knezevic, 2008), which assesses 10 modalities of disintegration regulatory functions, the instrument for assessing the functioning of the self-evaluating system GENSEL-40 (Opacic, 1995) and questionnaire for the examination of motivation in sport and recreational activities (by Keith Johnsgard, according to Mikalački M., 1995), which includes the usual list of 10 motives for the practice in sports and recreational activities.

The results show that there are significant differences in all three domains investigated psychological observed between the two groups of subjects. In the domain of basic personality structure, respondents involved in yoga have statistically significantly higher scores on the dimension of Openness in relation to the respondents involved in fitness, as well as significantly lower scores on the Neuroticism dimension. In the domain of self-perception or self-concept, there was found that the subjects involved in yoga have significantly lower scores on the subscales Misanthropy in relation to the respondents involved in fitness. The structure of motivation for physical exercise showed that in respondents involved in yoga, motives for skills and vitality are represented to a greater extent than in relation to the respondents involved in fitness, whereas there are the less represented motives for weight loss and beauty. Viewed as a whole, the results show that the structure of personality and motivation to a great extent determines the type of recreational activities and sports which the individuals are involved in.

Key words: *recreation, yoga, fitness, personality traits, self-concept, motivation.*

Recreation and personality

Recreation (Lat. re-creatio – refreshment; entertainment, fun; re-creation) is defined as activity that takes place in an individuals' free time, by free choice, with voluntary participation, in order to rest, refreshment, entertain and meet the needs for movement, playing and socializing (Mitic, 2001). There is a number of values of recreational activities and they reflect in health, education, economic and socio-psychological significance (Blagajac M., 1992). The role of recreation is important in all periods of human life and all ages, as it contributes to positive changes in health, social and psychological terms.

Psychological effects of recreational exercise are numerous and positive, and according to previous researches, most effects are the following: improving emotional health, improve mood and motivation, favorable impact on the emotional and social adaptation, strengthening feelings of personal

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values, reduction of aggression, reduction of general fatigue, positive effect on attitudes related to recreation, physical exercise benefit is reflected in the treatment of manifestations of mental disorders.

The motivation for engaging in recreation is different and it grows. People are engaged in recreation in order to meet the specific needs of medical, social, aesthetic and/or psychological nature. Especially in the field of recreation, motivation has a threefold role: determines the type of activity determines persistence in the performance, gives the quality to the feeling of success and satisfaction (which is the most important at the psychological level). (Pajević D., 2003) Motivational incentives for the SRA are to be found in person itself as well as in environmental factors (including at the first place: the living conditions in the family, school and workplace). That the socio-demographic factors are quite influential engaging in the sport showed, among other things, the results of Havelka and Lazarevic (Havelka N., Lj Lazarevic., 1981) and Galic (M. Galic, 1995). Four main reasons for participating in fitness programs are: better physical appearance (attractiveness), health, psychological well-being and weight loss. Another important result of this research is that practitioners' self-assessment of health and attraction was significantly more positive than those who doesn't practice (A. Djordjevic, 2002).

Starting from Maslow model of motivation, Mikalachki gives hierarchy needs to deal with SRA healthy people and disabled workers. Depending on the nature of the sample that the tests are performed on, there are differences in the structure of the motive for the SRA. However, all these studies include one, it would seem, "usual" list of motives that are included in the questionnaire for examining motivation in the SRA: health, fitness, vitality, weight loss, beauty, relaxation, mood, social relationships, achievements and life style (Keith Johnsgard, San Jose State University, USA Journal Sports Medicine, 1985, according to Mikalachki M., 1995).

When analyzing the relationship between personality traits and motivation for engaging in SRA, in modern studies are usually taken into account Five-Factor model of personality, which belongs to the field of personality psychology that deals with basic structure or basic features of personality, under which involve non-cognitive, time-stable and invariant dispositional constructs that can explain most of the variance of individual differences. Big five model describes personality starting from individual differences in behavior. According to this model, "hyper-space of personality" can be defined and described along five basic dimensions which are derived from: analysis of language, which is based on the logic of lexical hypotheses, comparisons and re-evaluation of empirical data from different personality questionnaires and scales of observation, the results of the factor-analytic studies of self-description of personality and descriptions by others. Five fundamental factors are called domains. They assume different groups of cognitive, affective and behavioral dimensions, which can be grouped in different ways. The narrower traits, on a lower hierarchical level, which further define the content of the basic domain, represent the aspects (facets). Five basic domains consists of: Neuroticism, Extraversion, Openness, Cooperativeness and conscientiousness, and they represent a comprehensive scheme under which it is possible to assess person's emotionality, interpersonal relationships, the quality of experiences, attitudes, and motivational styles. (Jocic-Djuric, D., Džamonja-Ignjatovic, T. & Knežević, G., 2004)

Psychoticism as a personality trait. Knezevic et al (2005) primarily emphasize the importance of the construct of the regulatory functions disintegration (psychoticism) for the psychology of individual differences, given that the whole experience so far in dealing with the psychology of individual differences suggests that the disintegration phenomena of one of the key constructs (in addition to intelligence and "Big Five") in this scientific field. In the conceptual and operational reconstruction of the personal dimension, the starting point were 26 scales of foreign and domestic authors, aimed for measurement of different symptoms of psychoticism, shizotypality and dissociation. At the end, there were extracted ten factors that determine the trait of psychoticism or disintegration of conative functions (Knezevic, G., 2008), which are: the general executive dysfunction, perceptualna distortion, enhanced awareness, depression, paranoia, mania, social anhedonia, plain affect, somatoform disregulation and magical thinking. These ten dimensions should be treated as modalities that strongly converge to a single general disposition. The proposed model argues that psychotic disorders represent extreme on a

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continuum rather than discrete phenomena, as they are treated in medicine, and in that sense, this model agrees with Eysenck's conceptualization of psychoticism. However, in terms of content and operationalization, this and Eysenck's model have significant differences, or more accurately, the overlap is minimal.

Self-concept. The basic characteristics of personality, in addition to peculiarity, unity, consistency, identity and maturity, include self-consciousness (Pajević, 2003). Self-concept or self-perception considers "organized scheme of an experience that person have about themselves" (Opacic, 1995), and as the most comprehensive and concise, this definition is taken as a starting point in considering in this paper. Self-concept can be defined as the totality of perceptions, thoughts, feelings, evaluation and prediction of the person about himself as the experienced object, as a participant in the interaction with the physical and social environment (Havelka, 2001). The physical self is a particularly important characteristic of personality for sports activities. The term "body schema" or "physical self" is used to express the experience of individual's own physical characteristics and the relationship of the individual to his body. On the choice of type of sport and estimation of body experience strongly influences the perception of the body scheme. Sports enhances the experience of physical self and self-success.

In the need for dealing with SRA, the existence of individual differences, evidence that factors of personality (and therefore of self-concept) determine the motivation for engaging in recreation. Self-concept plays an important role in explaining the motivation for participating or not participating in the SRA (Ulrich, 1978, according to Ascii FH, Kosar SN, AK Isler, 2001). Existing researches had shown if a person is going to practice, how frequent and what recreational activity person will choose, depends on certain aspects of the experience of itself. (Petkovic, S., 2007)

Yoga as a system of psycho-physical cultivation

Yoga in the Indian tradition, in a broader sense, is the name for the various systems of exercise and physical or mental cultivation, which develop and link with certain philosophical and religious teachings. In a narrow sense, the name of one of the six orthodox schools of Hindu philosophy whose tenets and teachings codified Patanjali in Yoga sutras. Early yoga was atheistic system (discipline), and later religious schools used developmental benefits of yoga practice, including the idea of divinity using it as the method to obtain their religious goals. Some systems emphasise three aspects that we find in most yoga: energetic cleansing through the appropriate mode of life and exercise, change of values (moral education) and a spiritual cleansing with mastering the mental energies (Small encyclopedia, Belgrade, Prosveta, 1986). In the Yoga Sutras, it is written about its division: "[General] Rules [patterns of observance] (yama), [rules of discipline] behavior (nyama) [yogic] body position (asana), breath control (pranayama), restraint from the senses (pratyahara), focus and persistence of [attention] (dharana), contemplation (dhyana), and focus [being] (samadhi) are eight members of the [yoga]" (Patandali, Yoga Sutra, Book II, 29 aphorism). The word yoga comes from ancient Sanskrit language which used the traditional spiritual elite of India - Brahman. Yoga means "unity" and "integration" and "discipline", which is why yoga as a system called the unifying or integrative disciplines. Yoga seeks for unity at various levels - aims to unite the polarities. Yoga indicates that an individual is not body, but the body is the instrument of his "I", teaches that there is a dimension of energy being reflected in the thoughts, words and feelings, learn that there is a mind, concrete and abstract, that the concrete mind is a product of causality and that there is an emotional dimension of being called ananda (bliss). The praxis of yoga is discussed in the Mahabharata, which the most famous instructive part of is the Bhagavadgita, included in the 6th book of epic (VI. 23-40), by revelation carrier Krishna, who shows first as a teacher of yoga to a friend and great archers Arjuni, and finally as a universal deity, and says: "Now listen what yoga teaches about that. That knowledge will break the bonds that bind you with action. For yoga, there is no effort in vain and for her there are no obstacles. Even some of this faith and wisdom will set you free of a great

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fear.” and “... in this world there are two ways. One is samkhya, which is the yoga of knowledge, and the other one is the yoga of action. Setting free from actions does not mean to refrain from all acts because by mere inaction you will not reach final liberation.” (Mahabharata, (Bhagavadgita-Upanishad)).

Approaches of yoga differ only by dominant element. All approaches to yoga are integral, contain all the elements that Patanjali discusses about in Yoga Sutra. Five major approach of yoga: Hatha yoga, which deals with adjusting the energy, consists of positions (asana) and exercise that are ballanced with breathing and breathing exercises (pranayama), which is generally performed in a sitting position, is the necessary basis for further spiritual development, if one wants to consciously move in this direction. About "choice" says the Katha Upanishad (Yajur-Veda (Black)). “The truth of the Self cannot come through one who has not realized that he is the Self. The intellect cannot reveal the Self beyond its duality of subject and object. They who see themselves in all and all in them help others through spiritual osmosis to realize the Self themselves.” (Upanishade, Katha Upanishad). Gjana yoga - yoga of resolution and insight, Bhakti yoga - yoga of devotion to God, Karma yoga - yoga in action, Raja Yoga (Royal Yoga) - the spiritual journey that leads to realization through knowing and managing processes of the mind. There are other types of yoga, used by described yoga types in the certain manner: Nada Yoga - which deals with the focus on internal sound - Nada; Kriya yoga – yoga of the infiltration, considers wriggling of consciousness through psychic channels and energy centers, synchronized with the breath; Mantra yoga - uses sound as a method of purifying the mind and liberation of repressed impressions (samskare). Mantra, for Bhaktis, is the name of God; Yantra Yoga - by focusing on the mystical diagrams (expressed in geometric space power), energies in yogi are focusing, cleansing the mind which makes the basis for merging with cosmic consciousness, which cosmical poweres are expressed through Yantras; Kundalini Yoga - continuation of a Hatha yoga, because more directly routes the yogi on techniques of obtaining awareness and managing energies of energy centers (chakras), balanced energies redirects in the central energy channel (Sushumna), and individual consciousness dissolves in the absolute consciousness. Hatha, Kriya, Mantra, Yantra and Kundalini yoga are included into the very comprehensive and extensive systems - Tantra Yoga (in a broader sense). There are two things that are common to all approaches to yoga - awareness and body, emotional and mind relaxation. Yogi or jogini, who truly mastered yoga, are called yoga master or expert. If yoga master teach others (which does not do all of them), he/she is traditionally called a guru. Sanskrit word guru literally means "important". According to traditional esoteric sources, the syllable “gu” means a spiritual darkness while “ru” is an act of removal. This means that the guru is a teacher who takes students from darkness into light.

Although yoga appeared as a practical discipline aimed for self-realization, during the past decade it has been affirmed primarily in the West because of its holistic approach, as a preventive, therapeutic, anti-stress training method. The five most common way of practicing yoga today: as a method of maintaining physical fitness and mental health, as kind of sport, as a body therapy, as a comprehensive way of life, as a spiritual discipline.

Hatha yoga. All branches of yoga seek for the same goal - enlightenment. Hatha yoga approaches this task through the body, by using the mind or emotions. Hatha yoga practitioners believe that, if the body is not purified and prepared properly, it is impossible to attain higher levels of concentration, meditation and expansion of consciousness. It is advisable to start with the yoga that enables managing over person’s own body. Name of Hatha Yoga is derived from the truth where the system is based. Life of our body is based on positive and negative flows and when these flows are in the full balance - we enjoy perfect health. At the ancient language of the East, positive flow is indicated by the letter "HA" which actually means "SUN". Negative flow is called ``THA`` meaning "MOON". The word yoga has a double meaning. On the one hand it means "merger", while it is a different meaning "yoke". So HATHA YOGA means perfect knowing of these two energies, positive energy of the Sun and negative energy of the Moon, their unification in perfect harmony and complete balance and the ability to completely rule these energies, that manging our "I". Hatha Yoga is not a goal to itself, but rather preparation for attaining higher levels of awareness. In a sick body is very difficult to develop self-awareness and elevate the mind

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to a higher level. The first level of Hatha Yoga teaches us the art of being healthy. During the voyage from ancient times to modern, Hatha yoga has undergone many changes. Major changes have occurred in recent decades, mainly for the purpose of adjustment to the students from the West. Besides Hatha yoga as an integral and comprehensive source style of yoga, now appear styles that are named by the master who gave his seal to that style or by the quality that this master extracts as the leading one (Vinijoga, Aštanga, Kripalu, Integral, Sivananda, Ananda, Bikram, Kundalini, Somatic Yoga, Yoga hidden language, and many others). (Jesudijan, S. and Elizabeth, "Yoga and Sports", 1981).

Fitness as a system of acquiring and maintaining good psycho-physical form

The concept of fitness is not translatable into Serbian and is multifaceted. Under this notion different authors include: fit, healthy, ready, good, fit, suitable, and so on. From these meanings can be seen that concept or FITNESS or TO BE FIT contains several large fields and aspects of human status, and these are: physical, psychological and sociological status. (Mitic, 2001) Term fitness contains a representation of a man well adapted to the modern lifestyle. The spirit of the ancient Greeks and their understanding of the inner spiritual and outer physical, that the mind is a carrier of the spirit and if body is weak, spirit is also weak, and transformed into a modern, it means the generally accepted notion, TO BE FIT. The term "fitness" is extensively adopted in the world and in our country, and indicates in the narrow sense (well developed) physical ability (English: physical fitness, or just fitness), and in the wider sense, the physical preparation, and the whole movement of recreational exercise in order to improve the level of physical ability (in the function of health, physical appearance, mood, etc.). It should be noted that the world increasingly uses the term "wellness", which is still more general notion, and indicates the overall human well-being which should be pursued, and in which implementation recreation generally, and especially recreation by physical exercise, has a very important role.

Physical ability (or "fitness") is the ability to perform certain physical activity in a satisfactory way (where the limiting factor may not be ignorance of techniques of the certain activities performers). The aim of physical training is to improve physical capacity (fitness). Primary means of physical culture is a physical exercise (or physical exercising), and the physical exercising is also the primary tool of physical preparation. Physical skills are a complex system, so it is justified to speak about their structure. The most famous authors agree almost entirely that the general structure of the physical capabilities of an individual consists of the following skills: strength, speed, endurance, flexibility and agility. The recreation, the most important physical abilities are the following: aerobic endurance, strength and mobility. In fitness, endurance (primarily aerobic endurance) is the most important physical ability. Durability is the ability to perform certain activities for a long time without reducing efficiency (Zaciorski, 1975).

Aerobic exercise includes the involvement of large muscle groups and lasts long enough, so it enhances the work of the cardiovascular, respiratory and other organ systems, and developing aerobic capacity practitioner. Creator of aerobic exercise as an American physician and physiologist Kenneth Cooper. The greatest popularity and fame has experienced the actress Jane Fonda with her exercise program called Training (Workout). Aerobic exercise with music can be defined as a relatively new form of organizational and methodological practice, intended primarily to the female population, made up to meet the health needs of women, beautiful appearance, activity, socializing, better mood, and so on. Aerobic exercise to music, we can achieve a positive impact on: functional and motor abilities, health, aesthetic and socio-psychological component of the practitioner.

Now, new training programs are occurring in fitness, which are called "group led programs" in the recent years. Under that name are considered training programs different in their content, purpose, use of equipment and devices, but the same in aerobic mode and group training management, with the sounds of music. The following exercises are the most commonly practiced forms: step aerobics, aqua aerobics, body sculpting or body styling, body pump, kick boxing, tae-bo, spinning, latin, funky, hip-hop, salsa,

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African, ethnic aerobics; jazzercise, low impact et al. In this country, for all of these programs, we can still use the term Aerobics or fitness programs. (Stojiljkovic et al., 2005).

Yoga and fitness can be viewed as modern recreation forms of group led exercising in closed facilities. From the previous presentation of the basic concepts of these two types of physical exercise, yoga and fitness, with a general name for a very wide range of meanings, we see that they are a kind of whole for themselves, entire systems with their independent historical roots, philosophical postulates, theoretical concepts, teleology, practical applications, its own terminology (which is mainly related to the languages of countries, homeland, where it originated), which develop separately without a tendency of mutual communication (although now appears certain eclectic integration efforts through combined programs such as yoga-pilates), to represent a kind of discursive whole, and that the comparison on specific criteria relevant to this area - the area of recreation, it is very difficult to do without a certain level of simplification. We can say, in language analog to philosophy of science, yoga and fitness to represent the whole paradigm, which are incommensurable and where from one perspective it would be difficult to talk about another.

As shown, each system has several types, forms, methods, techniques and levels of work. However, in modern conditions, common for the groups of students of these practices that are included in our study, as typical representatives of these systems (Hatha yoga and fitness programs) and which are present in their recognizable form in the last 40 or so years in the world and here, is that they are recreational forms of exercises, taking place in the group, led by specifically educated yoga instructor or teacher, and conducted in closed facilities (sports and recreation, fitness clubs and yoga centers), which provide the possibility of training throughout the year (i.e. all seasons). This is also the difference between them and other forms of sport and recreational activities that can take place: systematically or unsystematically (spontaneous/deliberate, organized/nonorganized), individual, group or team, with or without an instructor or guide, outdoors or in closed space, in existing or specially arranged spaces, with and without equipment or additional equipment in different environments (water, earth, air), with and without virtual devices, etc..

Subject, purpose and methods of research

The idea of this paper is to find out more about the psychological aspects of these two specific subpopulations practitioners. Also, it is assumed that the results would illuminate the reasons for the selection of these, very common, form of recreation for women.

The general objective of the conducted research was testing the existence of differences in psychological characteristics of the female population who attend yoga recreational and fitness programs in the dimensions of personality, self-concept and motivation for physical exercise. They further specify the objectives of establishing these differences separately in each of the three previously mentioned psychological domain, the variables of inventory NEO FFI (a shortened version of NEO PI-R test) and DELTA-20, inventory GENSEL-40, as well as in terms of degree of each of 10 motives for engaging in recreational activities (structure of motivation). Based on analysis of the basic concepts of yoga and fitness as well as specific forms of physical exercise, there is set the general hypothesis that the apparent differences will appear in psychological characteristics of the fans of types of recreation.

The general method of the research organization is a systematic–non-experimental research with model of parallel groups. The sample consisted of 160 respondents, with 80 women who attend yoga recreation and fitness.

Control variables examined in this study were: age, educational status (degree of respondents), financial status, recreation experience (length addressing selected recreation) and frequency of recreational exercise.

Independent variables were related to the sort (type) of recreation that subjects practice:

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Yoga (Hatha yoga, or Yoga of physical discipline, which includes physical exercises and breathing exercises)

Fitness Programs (integral aerobic programs, which maintains and raises the level of fitness in endurance, strength and elasticity)

Dependent variables included *personality dimensions* (basic personality traits according to the Big Five model) - defined by scores on the NEO personality inventory subscales NEO FFI (shortened version of NEO PI-R test), which measures the 5 main domains of personality: NEUROTICISM, EXTRAVERSION, OPENNESS, COOPERATIVENESS AND CONSCIENTIOUSNESS. In addition, there was especially investigated *dimension psychoticism* (disintegration of the regulatory function) - measured by the questionnaire DELTA-20 (AF) Form S, which are 10 modes of disintegration of regulatory functions (general executive dysfunction, mania, paranoia, somatoform disregulacija, enhanced awareness, perceptualna distortion, depression, flattening affect, magical thinking and social anhedonia) assess the overall score DELTA-tot, as a measure of this dimension.

Dimensions of self-concepts are operationalized through four subscales inventory for assessing the functioning of the self-evaluating system (GENSEL-40), which measures: self-image in different domains (physical, social, intellectual), general self-esteem, externality and the Global (dis)trust in people.

The motivation for physical exercise is operacionalized with the list of 10 "usual" motives for the practice of SRA, established in previous research: health, fitness, vitality, weight loss, beauty, relaxation, mood, social relationships, achievements and life style.

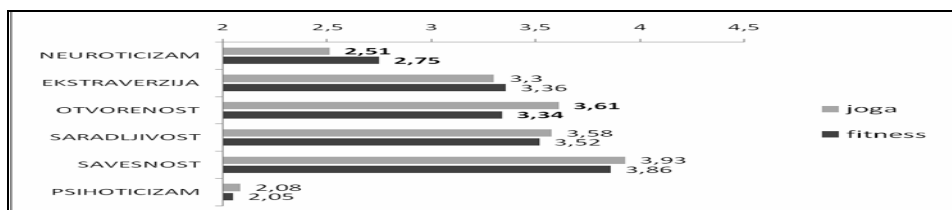
For processing and analysing the data, there were applied methods of descriptive statistics, Chi-square test, t-test for independent samples, analysis of variance and canonical discrimination analysis.

Results and discussion

The study found that there are statistically significant differences in all three investigated psychological domains: in dimensions of personality, self-concept and structure of motivation for physical exercise, among women involved in yoga and fitness programs, which confirmed the general hypothesis.

As for the differences in personality traits set, there was found a statistically significant difference between women who choose yoga and those who opt for one of the fitness programs at two of the five variables of inventory NEO FFI, ie. in the domains of Openness and Neuroticism, while these differences were not found related to dimension Psychoticism of personality inventory DELTA). (Figure 1)

Figure 1: Arithmetic mean fitness and recreational yogis at the five dimensions of personality (NEO PI-R) and Psychoticism factor (DELTA)



In fact, the results indicate that respondents who engaged in yoga have statistically significantly higher scores on the Openness dimension and significantly lower scores on the Neuroticism dimension, comparing to the respondents involved in fitness, and that the dimensions of Openness and Neuroticism are the best predictors of the type of recreation that respondents are engaged with. On the other

dimensions (Extraversion, Coopetaveness and Conscientiousness) there is no statistically significant difference between these two groups of patients.

Openness toward experience, which is one of the five basic domains of personality, aims to combine an active imagination, aesthetic sensitivity, intellectual curiosity, preference for diversity and independent opinion, the curiosity for developments in intra-psychological and in the interpersonal field. High Openness is not necessarily healthier and preferable, but the value of openness or closeness depends on the situational circumstances and in both cases may provide the person with good functionality in a social system. Further, the domain of Openness is associated with the educational status and measures of intelligence, especially with the aspect of intelligence which is called the “divergence of thinking” but is in general not be considered a measure of intelligence. In light of the factor analysis, cognitive skills are the sixth, an independent factor. Also, the feature “reservation-openness” to some extent may be in relation with mechanisms of defense that the person prefers, but the facts do not confirm that it is a general defensive reaction, but the trait of personality.

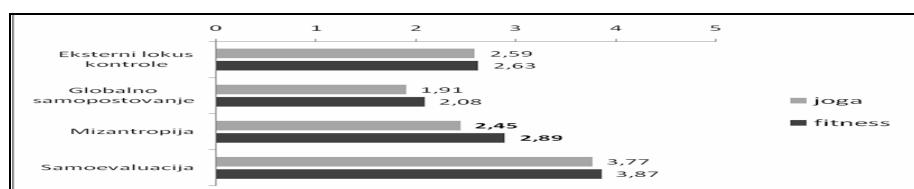
This statistically significant difference in the domain of openness toward experience, where respondents involved in yoga achieve more scores in relation to the respondents fitness, show that yoginis as a subpopulation of recreational athlete demonstrated somewhat more active need for the experience itself and tolerance for what they do not close, comparing to the fitness programs practitioners. They are potentially more curious, non-traditional, unconventional, with the tendency of reviewing authority, prone to the new, with more intensive perceptions of emotion. Openness toward ideas and values does not necessarily mean absence of principles or inability to adhere to a system of values, when it was adopted. In this regard, fitness recreation in relation to yoginis would have a greater tendency toward conventionality in appearance, behavior and preferences, preferring well-known in relation to the new with restrained emotional reaction, inner circle of interest.

Neuroticism as a basic personality domain should be distinguished from the notion of "neurotic" and it means a person's general tendency to experience negative affects, to destabilize and difficulty adapt to the new circumstances and stress. Dimension of neuroticism is known since the early work of Eysenck and sets adaptability and emotional stability opposed to the nonadaptibility and emotional instability. Persona whit high scores tend to the development of psychological distress, unrealistic ideas, excessive cravings and needs, maladaptive coping responses. Although high values on the scale does not necessarily indicate psychopathology, individuals with clinical syndromes have high N values.

When comparing two groups of individuals involved in recreation, this statistically significant difference in the domain of neuroticism, where devotees of yoga take up slightly lower position with its score on this dimension in relation to the practitioners of the fitness programs, speaks in favor of the possible greater emotional stability, poise, relaxation and ability to cope with stress without panic anxiety of the yoginis, comparing to the fitness practitioners. On the other hand, fitness practitioners, as a group, tend to experience stronger, destabilizing emotions, irrational ideas, weaker impulse control and more difficult adaptation, compared to yoginis.

When it comes to self-concept, there is confirmed statistically significant difference in one out of four variables of the inventory GENSE-L40, that is on the subscales misanthropy, among female recreational who choose yoga and those who prefer some of fitness program. (Figure 2)

Figure 2: Arithmetic mean scores of yoginis and fitness recreational on the four subscales of personality inventory GENSEL-40



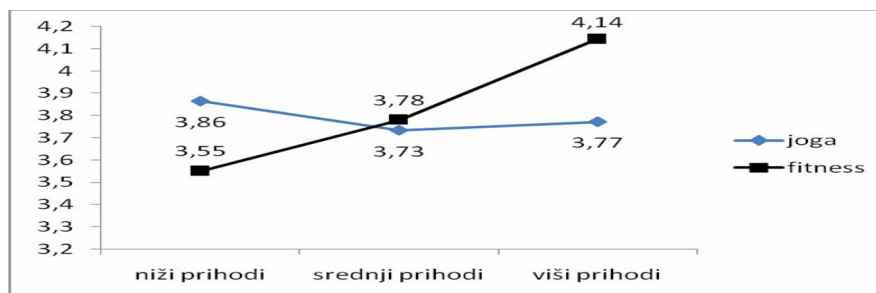
Specifically, respondents who are engaged in yoga have significantly lower scores on the subscales misanthropy comparing to the respondents involved in fitness. On the other subscales (external locus of control, global self-esteem, self-evaluation) there is no statistically significant difference between the two groups of respondents. Also, the data clearly show that misanthropy is the most important predictor in this group of variables, when the criterion becomes type of recreation that respondent will practice.

Out of the four variables measured GENSEL-40 inventory, the first two (self-evaluation, i.e. image of the self in different domains and global self-respect) represent operational descriptive and evaluative components of self-understanding, that is self-concept (Opacic, 1995), while the other two (external locus of control and misanthropy, or global (dis)trust in people) represent mechanisms for preservation of the global image of the self, similarly to the psychoanalytic constructs of rationalization and projection.

When it comes to variables that represent mechanisms for the preservation of the global image of the self, received significantly lower scores on the variables global (dis)trust in people (misanthropy) women who engaged in recreational yoga compared to those who attend fitness classes, speaks in favor of that yoga practitioners as a group showed a lower tendency, to blame other people for their own failures, as well as the tendency to attribute other people negative features, compared to practitioners of the fitness program. In other words, they are less prone to use the projection as a defense mechanism (psychoanalytic vocabulary words) in the service of maintaining a global picture of the self, compared to the fitness practitioner.

Further two-factor analysis of variance indicates the existence of statistically significant interaction between the factors type of recreation and physical status score on the subscales of self-evaluation. (Figure 3)

Figure 3: Interaction of the effects of recreation type factors and physical status of the self-evaluation

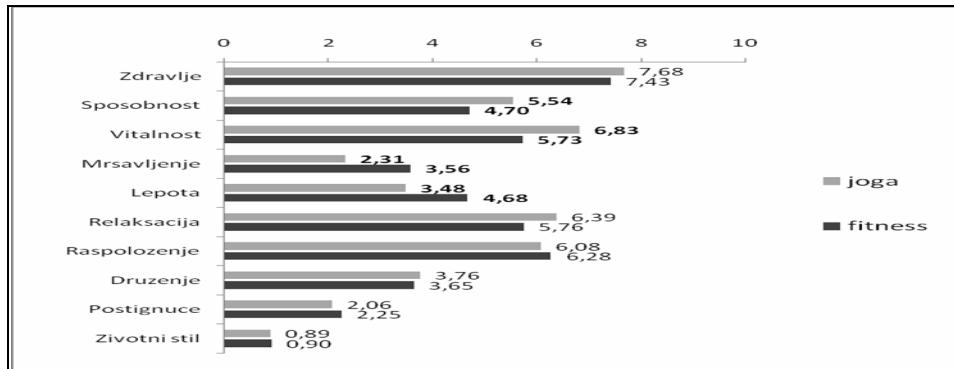


While in respondents who are involved in yoga there is no major difference in the self-evaluation depending on the amount of income, in women involved in fitness it clearly shows that the score on the scale of self-evaluation increases as the incomes of the respondent grow.

In terms of the structure of motivation for physical exercise, there was defined statistically significant difference in the degree of expression of four out of ten basic motives for exercise and recreational activities, i.e. SRA motives: capability, vitality, weight loss and beauty, among female recreational who chose yoga and those who opt for a fitness program. (Figure 4)

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Figure 4: The arithmetic mean score of yoginis and fitness recreational on variables that represent the operationalization of 10 "usual" motives for practicing SRA

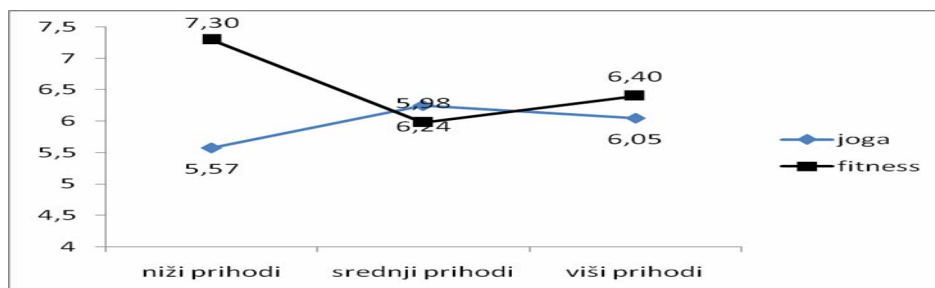


Specifically, in respondents involved in yoga compared to the respondents involved in fitness, skills and motivations of vitality are present in a greater extent and weight loss and beauty themes to a lesser extent. Related to other motives for practicing sports and recreational activities (health, relaxation, mood, social relationships, achievement, life-style), there is no statistically significant difference between the two groups of respondents. Discrimination analysis also confirmed that among respondents with higher scores on the variables of capacity and vitality there are more those who practice yoga than those who practice fitness, while respondents who have higher scores on the variables beauty of more fitness than yoga.

These obtained differences show that women who practice yoga, as a group, maintenance and improvement of functional and motor (physical) abilities represent the greater incentive to exercise, as well as the preservation of working ability (i.e. satisfaction of the motives of physical ability), and maintaining vitality, extending living and working life, preventing or mitigating declining functions of the body (or the satisfaction of the motives of vitality), compared to the fitness practitioners, to whom it is also important, but to a lesser extent. On the other hand, to women who go to gym and fitness clubs and practice fitness programs, more enthusiasm and incentive to exercise give the desire for regulation of body weight (mass), reduction of subcutaneous fat and the regulation of appetite (or, the satisfaction of motives weight loss), which is partly in connection with strongly expressed motivation to achieve a nice looking, aesthetically beautiful body, grace, slim line, harmony of design and movement (or, meeting the motives beauty), in relation to yogini, to whom it is also important, but to a lesser extent.

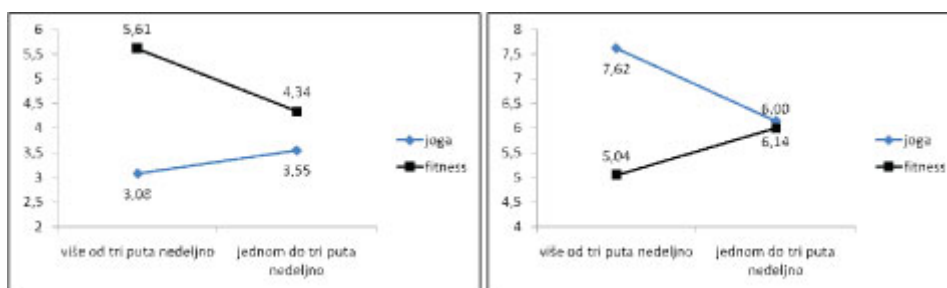
It was determined that there is interaction of the effects of factors type of exercise and material status, on the score on mood variables. In fact, in respondents who have lower income, respondents who practice fitness have more pronounced mood motive. (Figure 5)

Figure 5: Interaction of effects of the factors type of recreation and physical status on the mood motive



Research has also shown that there is interaction between effects of factors kind of exercise and frequency of exercise, on the score of the variables beauty. As it is already noted, the respondents involved in fitness have more pronounced motive of beauty than respondents who practice yoga, but these differences are more expressed in respondents who exercise more than three times a week, than in patients who exercise once or three times a week. (Figure 6, left). There is also interaction of effects of factors kind of exercise and frequency of exercise, on the score on variables relaxation. In fact, in respondents who exercise more than three times a week, respondents who practice yoga have great motive for relaxation comparing to respondents who practice fitness. (Figure 6, right)

Figure 6: Interaction of effects of factors types of recreation and frequency of recreation on the motives of beauty (left) and relaxation (right)



When observing results of our research as a whole, according to the goals, we can conclude that there are statistically significant differences observed between the two groups of respondents, i.e. recreational women dealing with yoga and women involved in recreational fitness, in all three investigated psychological personality domains. When we observe basic structure of personality, respondents who practice yoga have statistically significantly higher scores on the dimension of Openness, comparing to the respondents who practice fitness, as well as significantly lower scores on the neuroticism dimension. The differences between these two groups of respondents were partially expressed in terms of self-perception or self-concept. It was found that respondents who practice yoga have statistically significantly lower scores on the subscales misanthropy comparing to respondents who practice fitness. The structure of motivation for physical exercise is also in some aspects different. In respondents who practice yoga, it was found that motives of skills and vitality are present to a greater extent comparing to the respondents who practice fitness, whereas there are the less represented motives of weight loss and beauty. Finally, we can conclude that the results of this study indicate that personality and SRA are related, that certain personality traits and the structure of motivation to a great extent determines the type of recreational activities and sports in which individuals are engaged or will engage.

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