

STRATEGIES OF MENTAL HEALTH PROMOTION IN YOUNG ATHLETES – EDUCATION TO WELLNESS

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Abstract: *Basic strategies to promote mental health in young athletes develop human responsibility for the state of mental health. Knowledge and skills leading to the reduction or elimination of excessive mental and physical stress in daily life (not only in sport life) bring to young man the knowledge of “Self”, and a development of the potentials in sense of appropriate and real-life perspectives implementation. Mental health includes art to be aware of “Self” and own feelings, to have empathy to other people and be able to use the information contained therein. Education to wellness stresses the positive orientation in the individual life, development in beliefs about the sense of human life. Wellness becomes a part of the protection and promotion of mental health in young athletes with a tendency to initiate self-education. It contributes to the cultivation of young sportsmen actions and behaviour.*

Key words: *Young sportsmen; Mental health; Wellness; Circadian rhythms; Auto regulation techniques; Relaxation and Meditation; Breath regulation; Personal and social development;*

1 Theoretical background

1.1 Problem of mental health promotion

Mental health promotes learning, working and participation in society. The level of mental health and well-being in the population is a key resource for the success of knowledge-based society and economy. However mental disorders are on the rise in the EU and in the whole world globally. According to a statistical review from 2008 – 2012 almost 50 million citizens in EU (about 11% of the population) are estimated to experience mental disorders, with women and men developing and exhibiting different symptoms. Depression is already the most prevalent health problem in many EU-Member States. Suicide remains a major cause of death. In the EU, there are about 58,000 suicides per year of which 75% are committed by men. Eight Member States are amongst the fifteen countries with the highest male suicide rates in the world. The mental health and well-being of citizens and groups, including all age groups, different genders, ethnic origins and socio-economic groups, needs to be promoted

based on targeted educational interventions that are sensitive to the diversity of the European population.

Daily biorhythm is a natural cycle of the organism, includes power maxima and minima, periods for rest. Bad day regime has resulted in sportsman prone to depression, cardiac and vascular disease, gastric neurosis, in the best case, one has a bad mood, is inefficient and tired. The negative effects are more pronounced in female than in male sportsmen and more in younger sportsmen than in older persons.

The definition of wellness (according WHO) presents wellness as: “an optimal state of health of individuals and groups. There are two focal concerns: the realization of the fullest potential of an individual physically, psychologically, socially, spiritually and economically, and the fulfilment of one’s role in the family, community, place of worship, workplace and other settings” (WHO, 2000). Wellness is defined as the principle by which individuals and groups of people learn to behave in a manner conducive to promotion, maintenance, or restoration of health. Deductively we can found out that wellness begins with human motivation to improve living conditions. The educational aim of wellness is to develop in social life a sense of responsibility for health - as individuals, as members of families and as society members. Implementation of mental health promotion techniques in a person's sport life, whether coach, trainer or sportsman, is targeted to actively promote good mental health.

The base of mental training is an internal attention, which can start with an observation of breathing process and consistent of the breath and movement. It helps effectively in a positive mood changes, control of emotions, esp. of anxiety, stage of fright, fear. Basis of release, as any jerkiness is a manifestation of repression experience and no fading, conflict situations. In the control of negative thoughts and ideas can help technique of "Self-Inquiry Meditation (Maheshwarananda, 2001). This technique presents a combination of relaxation and concentration techniques, which reduce stress and mental tension, develop self-esteem and satisfaction and evoke happiness. Just as a physical exercise manifests in physical fitness and muscle strength, similarly concentration enhances mental health (memory, reaction time, etc.) and self-control. Self-examination ("Self-Inquiry Meditation") develops freedom and inner peace, promotes intuition and empathy. It is a key technique to develop self-control and self-esteem, which is a strategy for mental health in young sportsmen. It shows that it is possible to live in the present moment. In this state of inner concentration gradually decrease emotional blocks, fears, phobias and anxiety.

This technique should know and use mainly coaches, tutors and trainers in their daily work. Work with young people is very intrinsically rewarding, because we can see the

benefits in action– “to manage the life”.It means to lead the way to be healthy and able to fulfil goals in the sport life. It links to the circadian regime regulation and is expressed in the daily care of the release, sleep, nutrition, training regime, etc. The cycle of day and night is reflected as a rhythmic alternation, and thus the man rhythmically alternate mode of action of work and rest.

Fatigue signals in young sportsmen need to be eliminated through a rest. Fatigue presents a protective mechanism against stress.Tired sportsman is irritated, causes conflict and can be aggressive. When in the addition he was forced upon a regime and rest is not of his free choice, irritability and restlessness grows.

Sleep during the day will not replace lack of sleep at night. Only in the dark of night can be created melatonin - the hormone of the pineal gland, which is a signal for the body to asleep. But the efficacy of melatonin caffeinated drinks (coffee, tea, Coca-cola) and spicy foods reduce. Tiredness (especially physical) can help to asleep, but the sport training should be implicated minimallythree hours before bedtime. We should pay attention to young sportsmen daily regime and to try to eliminate sleep problems by following guidelines:

- To reduce or eliminate the time spent in front of the screen;
- Reading sms, chatting, playing on computer have a negative impact on sleep and quality of sleep (the negative impact of "blue lights" and scrolling time falling asleep after midnight);
- To keep a weekly to monthly overview of not following a television, not played on computers, etc. with subsequent analysis and evaluation for the personal level of sleep hygiene.

Recent research has shown that people which are sitting very long time in front of the television or in front of the monitor can be significantly reduced of the sleep quality. The problem is that emit flashing ("blue" light) stimulates the activity of the brain, and if it brings in "combat readiness" and vice versa suppresses melatonin production. It is necessary for promoting and keeping of young sportsmen health and powerto plan sport training activities in the morningtime or in the afternoon time - in any case not to late evening, otherwise the effect will be the opposite.

Sleep and circadian modulation control have an effect on the secretion of most hormones. Sleep not only affects hormones hypothalamic-pituitary axis, but also hormones control carbohydrate metabolism, appetite and fluid and electrolyte management. Afterfalling asleep (during non-REM sleep)hypothalamus plays an important role along with the pineal

gland. Hormone which is involved significantly in the management of sleep and wakefulness is melatonin. The production of melatonin is influenced by the presence of light, diet and the use of certain types of drugs.

Melatonin is a "hormone of darkness", which is controlled by a light stimulus whose work begins to rise sharply in the dark, with a maximum value around the so-called subjective midnight (from about 21.00 to 2.00 pm). Currently, melatonin begins to be considered almost miraculous anti-aging middle (Harada et al, 2010, 2012; Nevšimalová 2008). Current research shows that secreted by the pineal hormone melatonin has an effect on specific clusters of neurons in the brain that trigger and induce sleep. Reducing the level of light in the outside world is a stimulus that activates the pineal gland to increase the secretion of the melatonin. Strong light melatonin secretion prevents the contrary.

The discrepancy between the course of alternating light and darkness, day regimen may produce lighter or very serious disorder. It is well known that such failures and the need to compensate for disturbances of circadian rhythm induces sudden displacement person in another time zone, for example during traveling to other continents. Therefore, athletes who participate in the international competitions are traveling from distant countries either immediately before the race, or better in sufficient time to make their circadian rhythm could fully cope with local conditions. Very adversely on the person may exhibit differences in synchronization of biological rhythms, especially in cases where delays arise from the activities of circadian rhythm, as is the case with shift workers shifts at work at night (such as learning, studying), when there was no activity shift in the night time, but it is not yet possible to affect the production of hormones (such as melatonin and cortisol), body temperature, etc. For such people over time increases the incidence of heart disease, digestive tract problems, sleep disorders and other problems. Disruption of circadian rhythms occur naturally in a large extent in such cases where the level and duration of daylight is sufficient to synchronize them, especially in the winter with a short day and in countries with higher latitude (Wada, Krejčí, Harada, et al, 2011).

This can still contribute to local conditions, such as high and dense development restricting access of natural light, all-day stay in rooms with insufficient daylight or with only artificial lighting, etc. A significant part of the population in such a deficit of daylight produced characteristic symptoms and problems, such as fatigue, drowsiness, decreased activity and performance, lethargy, body weight gain, headaches, etc. (Harada et al., 2007). These symptoms are referred as the "syndrome SAD" (seasonal affective disorder), which can be described as seasonal detuning organism. For example, in the U.S. total affects the expert

basis this syndrome in the period from October to March, on average, approximately 5% of the population, but in New York due to adverse local conditions (very high buildings) and higher latitudes, this share is about 10%. Difficulties arising in this syndrome can be removed or at least substantially reduce the regular action of artificial light with a high level and for a reasonable period of time (for the luminance in lux thousands and necessary residence time in the light depends on its level).

Sleep is the most natural way unlocking all current, as in consciousness in the course of registration, the gradual processing of all daily sensory stimuli. Sleep is an important part of human life. It is defined as the functional state of the organism, which is characterized by specific neurophysiological properties. Sleep is defined as a state of rest with minimal physical activity, when there is a limited perception; mental activity of the brain is quite different from the waking state (Nevšímalová, 2008). Sleep has several stages that are repeated throughout the night. Sleep cycles are manifested in different biochemical processes and in different bioelectrical activity. According to contemporary theories of sleep leads to changing telencephalic and rhombencephalic stages of sleep.

Sleep has many important functions. During the eight-hour sleep the two phases will replace up to five times. Sleep renews mental and physical functions and their quality responds to physiological and pathological changes in the organism. It is an active process during which there are changes in brain activity, appears specific mental activity - dreams. In adolescents has further significance for the healthy growth of the organism in young athletes. Sufficient and quality sleep is important for their good health, emotional and mental balance and performance. On the basis of polysomnographic characteristics can distinguish two kinds of sleep - the stage known as NREM sleep, and called paradoxical phase - called by rapid eye movements (rapid eye movement) sleep, REM. Both phases have different neurophysiological significance and their management are applied and different anatomical structures. Non-REM sleep is divided by stages, which are repeated many times during the night. Stage 0 refers to the time before sleep, when consciousness becomes diffuse, as in the case of meditation. There is a gradual mental relaxation, muscle relaxation, slowing the heart rate, breathing and contact with the environment is gradually blurs to disappear. During the first stages may appear strange dreamlike impressions and ideas, which are apparently released from the unconscious levels of the psyche. Stage 2 is no longer true sleep. Stage 3 is quite deep sleep. To record EEG shows long slow waves running at about four cycles per second (delta waves). These regularly slow delta waves are high in 20-50% of sleep a person record. Stage 3 and 4, it is the deepest sleep, in which the muscles are completely relaxed, breathing is slowed

heartbeat as well and also decreases blood pressure and body temperature. Sleeping is almost immobile, regular breathing and unresponsive to conventional external stimuli. The quality and number of stages 3 and 4 have a decisive effect on the feeling rested and refreshed upon awakening (Nevšímalová, 2008).

The quality and length of sleep are very important factors in the quality of life. Affect physical and mental performance, physical and mental health. Sleep is essential for the quality of mental health. It is advantageous in terms of mental health fall asleep earlier in the evening and in the morning wake up sooner. In healthy adolescents and adults is the optimal time to sleep around 22.00. People called “evening type” have their temperature and maximum power shifted to later hours than the so-called “morning-type” people. Compliance with the lifestyle rhythms, which is genetically determined, promotes proper functioning of physiological functions of the body. The fresh feeling after waking decides representation of deep sleep (stage 3 and 4) during the night, but a very important factor is the number of past full sleep cycles. Most often a person wakes up in the morning after the REM phase, which each sleep cycle concludes. After the REM phase one feels brisk, does he challenge to find, is now able to "start". Young sportsmen in a chronic sleep deprivation suffering from fatigue and may be more susceptible to infections, lose their effort and endurance, forfeited confusion and delusions. Nowadays, people sacrifice sleep because of a difference - work commitment, fun, worry, etc. Good quality of sleep is very important for the proper functioning and regeneration.

Examining of the quality of sleep is currently most widely used in the research area. Becomes the object of interest as the population of young athletes and college students (see the author's publications relating to cooperation in sleep research - Harada, Krejčí 2007-2011) in connection with the creation and production of melatonin and serotonin. Fořt (2005) states, that the description of the hormone melatonin effects is mined in the area of sport performance directly revolutionary. And not only that - it's an extremely important hormone for anyone. The problem is its wider use. According law in many countries is not permitted melatonin for sale in the form of food add. Melatonin molecule is chemically simple, arises from the essential amino acid tryptophan \rightarrow way through serotonin. Melatonin production is highest in infants (which area reason, why they are sleeping too much), so this hormone in cooperation with the high production of growth hormone ensures rapid physical development. High production of melatonin is maintained in the range from one year up to about 15 years, followed by a rapid decline, so in the age of 50 years is one sixth of the original. With advancing age continues to drop, and it is in correlation with insomnia and depression in the

elderly. However, melatonin production is adversely influenced by many factors, especially certain medicines. Melatonin is primarily a regulator of the so-called internal biological clock.

Melatonin is often referred to as "anti-aging hormone" because its production is minimized in elderly. It is also one of the most effective antioxidants. Melatonin reduces the risk of arthritis, slowing down the natural aging process, removes disorders resulting from shift work, supports the immune system, reduces the negative effects of prolonged adaptation when traveling across several time zones, eliminates most cases of insomnia, limits negative effects of radiation, reduces the risk of cataracts, acts as a preventative agent in the case of a genuine risk of breast cancer and as a treatment for women affected by cancer, limits the negative effects of chemotherapy the treatment of cancer, lowers cholesterol, and even reduces high blood pressure, eliminates problems with premenstrual syndrome, applied it in combination with minimal doses of progesterone in menopausal women.

Substances causing the decline of melatonin:

- Non-steroidal anti-inflammatory drugs - aspirin (in large doses causes a chronic decline by up to 75%);
- Ibuprofen and Indomethacin completely stop nocturnal melatonin production;
- Beta-blockers - completely block the production of melatonin;
- The anti-anxiety - (Diazepam, Alprazolam further) block the process of melatonin production;
- Antidepressants and inhibitors - fluvoxamine, desipramine (Pertofran) and MAO inhibitors (Nardil) increase the production of melatonin, but fluoxetine (Prozac) blocks him;
- Vitamin B12 - large doses reportedly reduce the production of melatonin. (This is a problem for bodybuilders and other athletes who use vitamin B12 and its derivatives - dibenzoyl);
- Caffeine - Caffeine reduces excess levels of melatonin, thereby causing insomnia, anxiety, arrhythmia, and stomach problems;
- Corticosteroids - causes sleep disorders by reducing melatonin;
- Tobacco - reduces the level of melatonin;
- Alcohol - reduces melatonin levels, when consumed just before bedtime.

Measures to increase the production of melatonin:

- Expose to intense sunlight during the day;

- During the night sleep must be absolute darkness;
- Hot bath before bedtime (the procedure is questionable since congestion increases brain and body temperature, reducing fatigue, and thus will not only increase the production of melatonin, but also growth hormone) (Fořt 2005).

This is an equilibration between the activities of environmental effects on the organism and the organism environment. This equilibration involves the acquisition of a state of equilibrium, where the existing schemes (mental frameworks, ways of thinking, response) when confronted with stimuli from the environment and adapt to them are adequate, or later in the assimilation consisting in the implementation of information if perceptual diversity does not fit into existing schemes and finally in accommodation, i.e. transformation and overcoming existing schemes and to restore mental balance through differentiated and specialized Response to stimuli from the environment.

The processes of assimilation initiate enhanced level of thinking and higher levels of adaptability than the previous one, and result in restoring bio-psycho-somatic balance. The word hygiene comes from the Greek word "hygieinos" i.e. "salubrious" and a doctrine of healthy life (both in individual and social context). Hygiene is possible to sort the fields. The most common division is the general hygiene, occupational hygiene and epidemiology. Terms physical and mental hygiene, which are used in this book, cut virtually all of these fields and also extend to other non-medical disciplines, e.g. psychology, sociology, etc. Contribution of mental hygiene is to prevent somatic and psychiatric diseases, in good sport performance as a balanced person is able to concentrate on the good work and relaxation, as well as in the functioning of social relations in which a person who is mentally healthy, positive impact on their environment in terms of inducing and support experience happiness, satisfaction, mental and physical strength and power.

Hořek (2001) presents biological consequences of the energy change in the athlete's organism and neurohumoralresponse when the first stress stage increases the activation level of the organism. Transmission of information between the reticular formation and cortex is increased alert organism and activities (part of the alarm reaction, the onset of the order of seconds after detecting a stressor), which is reflected as a activation for easy tuning of emotions. Humoral response, functioning on the basis of connections between the cortex with the limbic system and the pituitary gland, it is slower and its purpose is to activate the cardiopulmonary system and ensure the supply of energy for muscle work (kind of catecholamine hormones, as well as adrenaline, hydrocortisone, etc.). This reaction is innate,

given the phylogenetic development at a time when any stress led essentially to escape or attack, i.e. the intense muscle work - so alert, increased heart rate and glucose muscles. There is currently no muscular work only effective solution to stress, but stress is still activating factor in muscle activity and, if not delivered energy consumed, its residues over time contribute to so-called civilization diseases (Hošek, 2001).

If the behaviour of the individual meets with obstacles in the way, there is a situation of barrier frustration. External manifestation of the frustration is frustrated behaviour that carries certain typical characteristics. This behaviour results from the intrapsychic state of frustration, the essence of which can be implemented as moral scruples satisfy some needs and the achievement of objectives. A special case is the reactance of social frustration - responding to loss and deprivation of liberty, which may take various forms: from the feeling of oppression when buying one vendor persuasion, to the actual loss of freedom). Frustration resulting from delaying the decision for a hearing, is suspended achieve the objective, which may lead to neurosis (e.g. if it is not able to deal with conflicting individual life). Basic common response to frustration represents an effort on defence (ego-defensive mechanisms):

- Frustrated individual trying to break the barrier or challenge source of frustration;
- Compensation (a substitute object);
- Disparagement (Damages unreachable goals);
- Regression (infantile compensation, such as an escape to a person with parental behaviour);
- Rationalization ("explain" the failure or failure);
- Aggression as the most common response on frustration and various kinds of delusions.

Frustration tolerance is the ability of an individual to resist frustrating situation. Children generally have lower frustration tolerance than adults. Collective frustration is more bearable than individual frustration. Extending the frustration leads to deprivation, resulting in a neurosis to psychosis. Neuroses are treatable without consequences, neglecting, however, become chronic and cause great hardship human life. In particular, there is a great danger to children who are long time exhibited any mental stress. Their body is in development and long-term psychological stress the risk of reducing the overall personality development. It is not - if met some of the basic needs, they lose interest in intellectual stimuli, a process of learning and action becomes instinctive. The most common symptom of neurosis is physical

restlessness and various manifestations of psychological stress - such as problems with concentration, involuntary movements, biting your nails, etc. Less common symptom is pulling her hair. A common problem is indigestion - morning vomiting, inability to eat breakfast, loss of appetite, pain. Among speech neuroses include stuttering, mutism (e.g., child refuses to talk with other people than with family members). In the background of this disorder is often hidden emotional conflict. Furthermore, here we classify neurotic disorders of sleep (late sleep, restless sleep, nightmares).

Among the mood disorders is included depression, which is a pathological sadness. The principal manifestations are hatefulness and anger, apathy, lack of concentration, drowsiness and weakness and long-lasting headache, talking about death or suicide. Accompanying phenomenon can be any physical pain, pessimism. One of the first signs of mental imbalance is anxiety, sadness and self-deprecation, "learned helplessness". Typical psychological disorders linked to early adolescence include behavioural disorders. Furthermore, we here should include eating disorders, for which the age of puberty and adolescence is typical, but there are other forms as well as in young age. Today, a widespread problem, which is usually diagnosed in school-aged children (but also occurs during the first years of life), is called hyperkinetic disorder (ADHD), formerly known as minimal brain dysfunction - LMD - sometimes also uses the term "attention deficit." It is characterized by excessive activity, poorly controllable behaviour and significant inattention. The causes are not known, but considering the combination of inborn disposition, possible complications during pregnancy and childbirth. Hyperkinetic disorder occurs more often in boys than in girls. The right educational leadership with the support of sport can be partially corrected. During adolescence nervous system matures and the problems disappear. In contrast, in adult sportsmen are common mood disorder or psychotic disorder like fatigue syndrome and syndrome of burn-out. In addition resignation, sadness and depression come, manifested physically and psychologically: abdominal pain, headache, nausea, loss of appetite and sometimes an increased activity, irritability, aggression, and sleep disorders, exhaustion, reduced immunity. For all these psychological problems, the foundation is strong feelings of fear or anxiety (often in children separation anxiety) and subjective state of emergency.

From the above it can be concluded that any change in the internal or social environment in which a person sees through cognition and social perception, has the effect of psychosomatic response in the body with certain health impact. Changing the situation is first evaluated using the "mental filter" with subsequent exposure and effect in certain areas of health (e.g. physical health), either in a positive or negative sense, depending on whether the

situation is subjectively perceived as threatening or whether evaluated favourably. It is a completely subjective evaluation depends whether the reaction will ultimately positive or negative in terms of impact on the health of humans. It is - if the situation is evaluated as threatening, sympathetic response is mobilized along with blasts of noradrenaline and adrenaline. It does not - if at that time the possibility of human locomotors release, which in today's sedentary lifestyle typical (at work, while driving, watching TV, etc.), scored a biological reaction to all the negative effects on the cardiovascular system and other organs. Repeats - if threatening conditions are often subjective, or - if perceived as a burden or a long-term threat is mobilized additional hormonal response of the body, especially the adrenal cortex (glucocorticoids, mineralocorticoids) and other endocrine glands. It has a very negative impact on the immune system, the emergence of some diseases and allergies. However, it is important to work on the transformation of "Self", which allows to maintain self-control and self-esteem, and the perceived variability of situations in life in a broader context of understanding and insight. The prerequisite for strengthening self-esteem is self-knowledge. Self-knowledge is a prerequisite to be able to relax. Self-knowledge is human consciousness becomes richer and more objective. Self-awareness makes people more open to personal experience and has a positive effect on the level of social contacts. Self-awareness plays an important role, because the deeper one discovers himself, the better is its adaptation in the environment (Rogers 1998).

When it comes to self-knowledge, mental hygiene in historical context, then one of the oldest systems in the health care system is the so-called integral yoga, which includes links to all major groups of yogic techniques. All yoga practices are aimed in the same, to acquire, how to make "yoga", which means to carry out "union" or "connection", i.e. to harmonize - reset psychosomatic well-being. Integral yoga underwent a test of time and as a uniquely sophisticated bio -psycho -somatic system is in the postmodern era is now increasingly used to improve physical, mental, social and spiritual health.

Ancient Greece created ideal "calocagathia" which expresses bio-psycho- social harmony and balance. The central theme of calocagathia was never ending diligence to ensure that the constantly harmonize these two dimensions of a person - mental and physical. Emphasis was placed on harmonizing these two dimensions in a union, which is necessary to "balance" the person does not fall into either one extreme - or to escape to the soul, not in materialism. Only between these two extremes, man becomes a man.

Humanism, which denied the medieval church scorn body, ideologically followed the ancient ideal of calocagathia. A major promoter of healthy lifestyle at that time was Jan Amos

Comenius. His instructions to take care of health, their topicality surprise today: "We are obliged to protect the body from illnesses and injuries. First, as is the abode of the soul, and only after his ruined soul must immediately move from the world ... Secondly, the same body is made not only abode, but also a tool of rational soul, without which it cannot hear anything, see anything, nothing to talk nothing to do, or even think ... therefore violates the brain, and the ability to break the introductions, and the affected limbs of the body, and spirit is interfered with."

The current definition of health by the World Health Organization surprisingly coincides with the ancient ideals of yoga, calocagathia and humanism. Foundations for a healthy life are created from birth. Parental care and love, harmonious relationships in a family environment, mutual respect and tolerance, easy going and chummy suitable environment for leisure, regular physical activity with sufficient movement in nature, good nutrition and more - these are ideal conditions for healthy child development Purposefully and meaningfully applied prevention of pathological behaviour of individuals towards their own health and the health of others through education on mental hygiene in children , adolescents and adults is in the interest of each company. It is a primary, secondary and tertiary prevention. The impact of preventive interventions, the greater the affect multiple systems and what is their impact on the system permanent. The newest trend is "community based prevention" or prevention of a whole society.

Primary prevention should be the entire company prophylactically, i.e. trying to prevent behavioural disorders. It means to create optimal conditions for the development of the child's personality. The starting point for primary prevention is parallel effects on children and adults (parents, teachers). Given the nature of the contemporary family, which is not always able or not even interested in creating the necessary conditions and stimulating environment for the healthy development of the child, it is essential that this area of primary prevention has been the subject of increased interest of professionals and amateurs from the public. Sports and activities can play an important role. For example, the leisure activities of children and adolescents, in particular neighbourhoods in large cities, etc. Responsibility for these activities takes over the municipal council. Another crucial role in primary prevention should play a primary school. Dovalil (2002) states that the school would be much more involved, or assume responsibility for the movement regimen of youth. Efforts should lead to the gradual implementation of the recommendations of doctors, who, for all youth considered optimal 8-10 hours a week adequate movement regime. This means in particular extend the range of sports clubs , but at the same time , especially for large group less physically talented

up and lead to a much larger number than ever amateur sporting rings directly to schools. One of the other equally important ways is to make sports equipment for schools spontaneous physical activities for children, youth and family members. For children and youth is naturally necessary to prefer their active participation in sports activities led by coach - trainer.

Well-organized sports activities (training , competition) is beneficial not only for the development of body and personality, prevention in the fight against some of the negative social phenomena, such as smoking, alcoholism, vandalism, crime, drugs, extreme forms of entertainment, etc. In addition, the school practice, strong reserves in terms of diagnostic changes in child behaviour and changes in his mental state (Liba 2007).

Secondary prevention involves screening of health disorders and general care of them so that they did not develop further. To take the form of removing the causes of socio-pathological behaviour, the diagnosis of negative factors is very complicated, because the short, medium and long-acting factors are closely linked. The main objective is therefore early detection of symptoms of behavioural and moral hazard. On the basis of teaching, special education, psychological, medical and social diagnosis are then searched the optimal form of corrective action. There is a clear fundamental shift in the overall concept of the work, and away from isolation to socialization, from uniform attitudes and goals of the individual programs from directive leadership to fellow child relationship. The importance of sport activities such as supporting the development and harmonizing factor is not yet with us in the secondary prevention of damage mental health fully appreciated. Appropriately chosen physical activity may be at a qualified lead source of learning, diverse ideas and positive emotions. It can be an important tool in the social teaching of the individual, the emotional development and in shaping the value system. The theoretical justification must be empirically verified. We believe that also in the secondary prevention will find its place yoga exercises and relaxation and concentration techniques. Effectively constitutes a natural counterpart of sporting activities. As already mentioned above, the stress load leads to symphathetic which may be in their negative health implications. Man is "ready for battle" (high blood pressure, muscle tension, heart palpitations and other symptoms), but it is not used. During aerobic sports, especially running, swimming, cycling, but under certain circumstances, in games and gymnastic exercises is to release tension (due to secretion of endorphins). But in the extreme case occurs when aerobic exercise to overload anti-stress system, the exhaustion of the seized up. Yoga exercises lead to the regulation of breathing and massage internal organs, optimizing the endocrine glands. Maintain the health of joints and spine. The movement is slow, typical endurance are also in place.

Tertiary prevention is aimed at preventing the recurrence of symptoms and problems. Risk factors in the behaviour of young sportsmen can touch their own health and the health of others. The origin of problems with health risk can be in the own family (e.g. families, where addiction to alcohol or to drugs exists, families with unclear rules and behaviour, unable to saturate the emotional and other needs of the child, etc.) in the school environment, the influence of peers and the wider community. An alternative remedy is probation or supervision, special projects volunteering, etc. Transformations in society are most strongly reflected precisely in people's behaviour. For this reason, the focus of discovering new concepts problematic behaviour as a mirror of what is happening in the wider context, irresponsible behaviour as a reflection of negative changes in the company. For coaches it means that the interpretation of pathological behaviour is essential to thoroughly examine of the social context, circumstances and situations in which the health pathologies action. In this context, it is necessary to take into account different individual traits determined genetically, disease or mental disorder, as well as manifestations of generational protest, rejection of authority, influence and part of group activity, boredom, but also inappropriate way of leisure time. Low level of education and socio-cultural environment and the lack of moral, ethical and legal education are often mentioned related to health pathologies. According to the humanistic psychologists, instructional strategies for teaching mental hygiene easiest, most meaningful and most effective when conducted in an atmosphere free from all threats. Pupils should not be motivated through fear of failure, but through a desire to success.

1.2 Self-transformation model in the sport milieu application

On the base of research projects results the “Continuum of Self-transformation” in the sense of procedural changes of the individual was established (Krejčí 2005-2011 – GAČR 406/05/1685, GAČR 406-08-0352, the cross-border cooperation ESF PACZion “The Passau-Budweiser Union for Health Promotion”). This continuum can be well applied in the field of young athlete's mental health support and its bio - social consequences. The continuum comprises sectors: Relaxation - Adequate exercise regimen - Nutrition – Prevention medical care service - Personal salutogenesis. Continuum of the Self-transformation is arranged in a circle, which is optimal for repeatability of the continuum in coherent cycles.

1.2.1 Relaxation

Among the phenomena accompanying our time include stress and tension. The stress factor may be also a lack of exercise – hypo kinesis. As a result, increasing restlessness,

inability to concentrate, restlessness and verbal motion frequently observed in children at school because of their resistance to stress is lower. Psychological effects of stress on one side of irritability, anger, aggression increased, but also the anxiety and fear of the other. The opposite of stress is relaxation, and therefore increases the importance of controlling relaxation and meditation techniques. Teachers and parents should be able to recognize the signs of fatigue in children (among them there are relatively large individual differences) and allow them to rest and relaxation. Reduction of needs means reducing of burdens and stress, burden lighter grades actually enhance personality.

1.2.2 Adequate movement regime

The second sector of the Continuum Self-transformation is an adequate movement regime. Parents and teachers often complain of increased psychosomatic children restlessness and aggression. Negatively in this issue certainly shows hypo kinesis that as in adult manifests by impulsivity, irritability, decreased ability to concentrate and control. Hypo kinesis in children, unlike adults is not entirely "normal" for their age. Experience adventure in children previously implemented in a variety of games and physical activities in recent years, replaced by a virtual experience at the computer with minimal physical activity. Matějček (1999) states that if someone from the second children's classmates mocked it for its physical clumsiness, awkwardness, clumsiness, weight, etc. It is recommended not to underestimate this fact. Ridicule and rejection group are experienced sharply.

Hošek (2001) in line with the previous states, that depressing and frustrating exercise is not healthy. It is based on the definition of health, which is counted as a necessary part of the state of psychosocial wellbeing. Matějček (2003) recommends that a child in the early years of schooling at least acceptably learned to swim, bike and ski or skate, which skills are highly prized among children. A child can show their skills without having to compete with anyone. The author proposes to teach the child a few exercises that are unusual and second child wakes as a surprise, interest, and thus respect. From this point of view can be very useful yoga exercises , especially if it is not a mere mechanical exercise , but also other qualities such as proper breathing, develop concentration, creativity and self-knowledge. Faulty posture is fairly widespread among children of school age. It is an example of muscle imbalance. To do this, in varying degrees associates a number of other factors - inadequate movement and life mode, single load the lack of proper motion compensation, as well as family and social influences , disease, birth defects, and emotional lability. With the increased psychological stress automatically increases muscle tone, which is the default voltage for

subsequent muscle contraction. Coordination and reaction time movements are affected by mental stress. Adequate movement regime learns to control body, improve exercise and other deviations: posture, balance, perception of body schema. Any adequate regular physical activity strengthens the skeletal and muscular system, improves the function of the cardiovascular system and strengthens the lungs. Positively influences human feelings that causes increased production of endorphins. Physical fitness (which can only develop physical activity) supports the healthy development of the organism, develops positive personality, enhances the performance of physical and mental activities, facilitates the release of tension and helps to mental balance.

Bolach, B., Bolach, E. and Kielan (2008) observed differences in the level of physical fitness of students in special schools (with a variety of mild mental handicap) in comparison with ordinary primary school pupils aged 9-15 years. The authors emphasize the need to ensure quality access to sport and physical activities in special school pupils because of their physical condition was detected at very low levels.

Proper movement patterns lead to spontaneity in movement expression, which is very important for physical release. Physically release is leading to the mental release. Conversely, well-being retroactively positively affects the body schema and regenerate body tissues. The results of research projects GACR 406/05/1685 , GA CR 406-08-0352 have confirmed that physical deficiency is the cause reduced availability of physical activities in general, and that the motion is damped learning since childhood. Adequate means appropriate –according age, abilities, needs, etc. It is based on experience peace, joy, and also playfulness and creativity. Move while you play and can form either by yourself or with someone else. Its basic features, but also in terms of principles in order of importance and continuity expressed in the following points:

- Manageability - the basis of the scheme in terms of the individual mastery and mastery of movement. What is a simple one, for another can be challenging. Role playing condition, age, health status, type and degree of disability, etc. manageability of physical activity is very important basis for the re- implementation, which is the basis of progress in motion learning.
- Spontaneity - in the sense of feeling of freedom, lightness and joy in movement or digestion "flow" effect (i.e. be moving literally kidnapped, completely absorbed). Mastered motion a whole is characterized by spontaneous loco motor expression, which is a prerequisite for a desirable sense of fulfilment.

- Saturation - in the sense of happiness, fulfilment during physical activity and after it. Gives one a sense of fulfilment and self-affirmation, a person tends to repeatedly return of the activity.
- Repeatability - in terms of desire to return to the physical activity and improve to a higher level. In this stage is possible to start with increasing load. One is physical activity so glad that he is willing to discomfort greater burden in their training cycle.
- Adjustments - in terms of volume of physical stress due to health and physical proportions person 's age , gender, etc. alternating load, a training effect and some positive dependence on the physical activity.
- Availability - in terms of the possibility of applying regular motion , anytime, anywhere and best day (depending on the nature, timing, financial, legal and other conditions). Here begins the selection of other appropriate activities and combinations thereof (e.g.skiing + cycling, etc.). The result is an adequate exercise regimen.
- Security - in terms of accident prevention and protection from injury in the implementation of the motion (or the application of help), the principles of safety in physical activity. Only safe physical activity is adequate. Plays the role of age, gender, disability, current condition, availability of equipment, helping, and rescue, self-rescue.

On the basis of adequate movement regime can be best utilized and improved innate psychic ability and managed burn-out syndrome in sportsmen. As it already was mentioned, all what in the sport young sportsman learns, should be usable in his everyday life like an active rest adequately to the individual needs and abilities, such as learning to swim, good bike, get rid of stress (relax) perceive the joy of physical activity. It is a good result, if in the individual adequate movement regime is like predominant or at least represented an adequate physical activity, which can be realised in nature. Adequate physical activity associated with the fresh air is irreplaceable, has a very salutary effect on the level of somatic, mental, social and spiritual.

According to the adequate movement regime principles, it is not necessarily to be all time compared with others. Each person is different and some young people can prefer non-competitive physical activity like active rest and compensation of tension. Therefore, the correct choice as non-competitive activities as for example bike ride, water sports, snowboarding, etc., which may be measured forces with someone else, but rather it's about overcoming of the Self. Adequate physical activity when a person called "fit" is adapted to the

needs and particularities of the environment, time and financial possibilities and it is not boring. If adequate movement regime operated with friends, family members, is enriched by unforgettable experiences affirming friendships and relationships with possible extension to other generations.

The purpose of that is to consider the motion learning as a means of education and self-realisation; it allows strengthen the social ties and contacts. The most important of them is to obtain feedback on their own behaviour. Social learning should, therefore, continue to be a sort of accompanying by-product controlled motor learning that occurs seemingly automatically. Social learning in young athletes sport training can become a targeted means of prosocial behaviour development and thus correspond fully with the modernization of educational content in terms of health promotion and wellness aspects in sport.

Mode or mode of work and rest with adequate movement regime is closely related, is an essential part of a healthy lifestyle. It consists of proper and regular arrangement and classification of activities within 24 hours. The basis is the biological rhythm of the human body.

1.2.3 Nutrition

Another sector Continuum of the Self-transformation is "Nutrition". The diet should be in terms of a positive impact on the mental health of a person is always freshly prepared and a significant proportion should also have a raw diet (fruits, nuts, vegetables, milk, muesli, etc.). It is in fresh diet are well represented enzymes that are catalysts of biochemical processes in the body (bone structure, muscles, haematopoiesis). In contrast, semi-heated food, old food, foods with chemical additives has a negative impact on human health and cause mental and physical weakness and fatigue. This is how the athlete feels after the mental and physical very closely related to its diet. Healthy diet helps in the prevention of acute and chronic diseases and potentiates not only physical, but also mental development of young athlete; it can only strengthen his mental balance, and increase resistance to infection and increase training efficiency. The basic task of proper nutrition is to ensure optimal intake of energy and nutrients in the form of macro and microelements, as appropriate to the age, health and lifestyle.

In the Czech Republic after the second war for the last 60 years increased consumption of animal protein by 90 % and the related consumption of animal fats by 70 %. But a consumption of vitamins (except vitamin A), iodine, calcium, and fibre practically unchanged. Higher prices and a wider range of food products in recent years after 1990 has brought a

decrease excessive consumption of meat, eggs, milk, dairy products and animal fats and positive increase consumption of vegetable fats, fruits and vegetables. This increase, however, is not yet sufficient and negative nutritional trends persist. This is still an excessive intake of meat and meat products and excess salt consumption, low consumption of vegetables, fruits stagnant consumption, increased consumption of snacks and sugary drinks - especially in the case of children pubescence.

A common mistake in the nutrition of young people including the young athletes is insufficiently rich disproportionately hearty breakfast and dinner. Also rush to the enjoyment of food, a small concentration of food (talking, reading, television ...) thrive well received and the use of supplements. At optimum nutrition there is no consensus. Yet we can find some expert advice unity in the fundamental rules of good nutrition – the human diet should be varied, that should include all the important parts.

The principles of proper nutrition due to mental hygiene and well-being of young sportsmen is necessary to emphasize the correct drinking regime. Adequate intake of water is needed for the production of energy in the body, for thermoregulation and excretion of waste products from the body. The human body contains adult about 60 % water. Part continuously excreted and loses, therefore, be it in the body constantly supplied. Daily should drink as a complement to the organism approximately 2.5 to 3 liters of liquid. Today, unfortunately, most of the students in schools used the popular but unhealthy drinks high in carbohydrates (various flavoured soda-water), caffeine, which can become addictive "drug" (coca- cola), quinine (tonic) or by a unilateral supply of minerals in drinking one type of mineral water. There are in the market also new types of drinks that are presented as a drink that provides energy. In young sportsmen gained a reputation of some new drugs. These include "Red Bull", "Erectus" etc. These drinks contain mostly caffeine, like coffee and Coca - Cola, or substance guaranin, whose composition and effects are similar to caffeine. In a big number of school age children has been provoked the habit to drink "child's „Coke. Some drinks contain more taurine, which is not a drug but an amino acid that helps the regeneration of the body (i.e. the substance for our body quite useful). This drink is not suitable to consume in large quantities, they may like coffee cause insomnia, heart palpitations, headaches and other adverse conditions. These energy drinks do not deliver, it only allow you to draw more than our bodies normally admitted.

Anorexia or bulimia suffers from over six per cent of the population. Only about one-third are able to completely heal. Six per cent of cases end in death. The risk of suicide is affected by up to two hundred times higher than in the general population. In connection with

these facts, it is important to remind coaches and teachers to be observant characteristic signs and alert parents. Important changes in nutrition and overall lifestyle: Trying to balance the energy balance, intake should correspond to output. Consider reduction of total energy intake (mainly limited fats and simple sugars free) and especially try to implement appropriate physical activity, which should help to “consume the received energy” (Fořt 1995). Nutrition is also related to allergies caused from food. Headache, hives, asthma, eczema, fatigue, diarrhoea, respiratory problems, migraines, and many other problems can be retrieved, possibly exacerbated by the body's response to certain foods. This is an unusual symptoms and pain caused by diet. Although the professionals know exactly why some people with food allergies come from, one thing is certain: the facts and their recognition have helped solve many health problems. If people have adverse reactions to certain foods overlooked, can it results in wasted years in illness.

Recognition of the existence of these "strange allergic" to certain foods has direct revolutionary significance. Some prominent scientists believe that a number of diseases are often implicated in covert intolerance to certain foods. These reactions, although the generally allergies say, not the classic definition of food allergy. Experts are often referred to as „intolerance“, „hypersensitivity“, „metabolicresponse“ or simply „rejection - intolerance“. In a classic case of food allergy, the immune system over- reacts and produces antibodies called immunoglobulin E. Soon often dramatic reactions can come such as painful sensation in the mouth, itchy red skin rash, asthma attack or even anaphylactic shock.

Following the release of histamine in the body and other substancescausesin the allergy symptoms. Theory of allergy, intolerance, or more accurately known hypersensitivity says that after ingestion of the organism "inappropriate" food arrives only mild and less detectable reaction. This may occur after several hours or days after an even longer time. On the elicitation should eat more of the food. The immune system in this reaction does not have to involve a typical manner. Some scientists believe that these delayed hypersensitivity to certain foods contribute to a number of problems such as lethargy , headaches to migraines, mood swings , loss of concentration among pupils in school, hyperactivity , eczema , as well as protracted conditions, such as the articular rheumatism and syndrome irritable bowel syndrome . In many cases help effective diet with certain allergenic foods.

Although they are so diverse diseases, food concerned, be few - mostly those are cereals (wheat), dairy products,caffeine, yeast and citrus fruits. After removal of some or all of these foods from your diet symptoms subside. Allergy at school, even hidden, constantly

increasing. The range of causes elicit allergic manifestations are diverse. Severe symptoms are especially breathing symptoms.

These substances are also long-term enjoyment to the health harmless. However, there are a number of sensitive subjects, in which some of them may cause some problems for people with allergies, asthma, hyperactive syndrome, children with ADHD. These children need a short nap will not last sit still, often suffer from eczema and bronchial asthma. The older they are more vivid, often injured, have difficulty keeping balance; often have speech problems, learning problems, even if their IQ is high. Suffer from increased thirst and tend to have more allergic symptoms and affection for diseases of the upper respiratory tract. In England in 1977 based interest group of parents of these children to help themselves, which beverages containing artificial colours or flavours, glutamate, nitrates, nitrites (nitrates, nitrites), some antioxidants and other substances. Not suitable compound for these children is benzoic acid and its salts. It is therefore recommended these children omitted from the diet all foods and beverages, where these are used as preservatives. Likewise suitable are salicylates, chemically identical to aspirin. Most of soft drinks contain Salicylates manufactured in the Czech Republic under license or are imported.

The best health benefits are achieved through freshly prepared food consumption, not in consumption of semi-heated compartments meals. For young sportsmen it means to eat a diet rich in proteins (milk, yogurt, nuts, soya beans and lots of vegetables), fruit, carbohydrates (cereals, potatoes) and fats (butter, oil). As already mentioned, it is very important to be a meal in a good state of mind. Feelings of fear, anger, depression, etc. during the eating cause in the conversion of good food to a "poison".

1.2.4 Preventive medical care

Preventive medical care in the Czech Republic is based on European traditions of healing and is at a very high level. It is very reasonable and desirable to use (not overuse) the possibility of preventive examinations and treatments tailored to the individual needs of man. In terms of health education and active lifestyle is necessary to emphasize that (according to WHO) preventive health care can affect the health of the population of only about 15 -20 %. The larger part can only affect the healthy lifestyle of the individual, which falls into the active lifestyle, including an adequate movement regimen.

The Czech Republic almost all facilities have a contract for the provision and payment of health care, health insurance and provide patients insured by the health insurers without direct payment. Health services provides a system of outpatient care, institutional care

(inpatient) care, equipment preventive care, urgent care facilities, facilities for transport sick, injured and pregnant women, spa treatment facilities, facilities providing pharmaceuticals and medical devices and dental products .

As for outpatient care in case of illness, the patient usually turns to the primary care physicians who work in the area of his residence. These are general practitioners for adults, general practitioners for children and adolescents, dental practitioners (dentists) and female doctors (gynaecologists). If the patient does not know of any reason your doctor or health care facilities may inquire at the local municipal office. It is also possible to ask advice from your health insurance company or alone for a doctor in the phone book. When choosing a doctor is necessary to keep in mind that you can only log on to the doctor , who has a contract to provide health care insurance for which the insured person.

For all primary care providers, the patients must first register. The doctor may refuse to register only in cases where acceptance would mean for doctors such a workload that he could not provide adequate care to the patient or other patients already in his care. The doctor cannot refuse treatment in cases of urgent care (injury, acute illness), after this treatment, however, the patient is transferred to the attending physician. In case of refusal, the patient is entitled to the refusal in writing. If the primary care patient, becomes the registered doctor shall issue a registry entry and is committed to the on-going care of the patient, i.e. to provide basic care (including home visits) and, if necessary, to ensure special care from a specialist or in the hospital.

If the patient's condition requires specialized care that he cannot give her registered primary care physician recommends relevant specialized medical equipment, which has a contract with the patient's health insurance. In this case, however, the patient has the right to free choice of medical facilities and physicians. Registered physician issues a recommendation for specialist care or request a referral. Specialist physician is registered with a feedback on the findings and treatment procedures, and recommend further treatment procedures, and makes recommendations regarding the patient's ability to work.

1.2.5 Personal salutogenesis

In the sense of professional salutogenesis it is very important for humans to analyse the working environment and the mode of their profession and consider the risk factors in the context of individual health and the health of others. On the basis of this analysis can then be incorporated into the lifestyle salutors that offset the health risks of the profession - as for example overloading of voice in trainers, coaches, stretching compensation in young athletes

during long sessions in special oriented training process, etc. Salutogenesis is a term describing a theory in which centre is person as a holistic entity of human health and the fact that it is real and possible to help, to prevent, to manage the disease.

Salutogenetic thinking is different from pathogenesis. It can be with success applied in young sportsmen as well. It is a fact that the man did not seek just how out of one's life to eradicate pathogens (that he cannot succeed as well), but as in life look salutors, i.e. elements increasing the potential health of the concrete man (Hošek 1993). Salutogenetic way of life can be promoted in sport education, particularly in the subjects of sport training.

It is certain that primarily family might contribute to the salutogenetic path of life. Salutogenetic approach involves the whole personality and lifestyle. It leads step by step the young sportsmen to understand salutogenetic techniques and ideas aiming to improve their lives. It leads to understanding conscious connection, orderliness, joy of understanding and coping leads to good nutrition, active life without ties to the consumer, hypokinetic lifestyle. It leads to environmental responsibility of young people as well.

According Hošek (1993), there are three Salutogenetic approaches, which can be developed in the sport and training process:

1. Harmony of mental and physical development. It is all about overcoming the idea of exercise as a mechanical ritual repetition, but the idea of experience, reflection, or by action of the body to the spirit and the spirit to the body (this is actually to evoke a warm, heady feelings blasts endorphins).
2. Principle of Salutogenetic triad, which builds on the importance of energy balance, hardiness and health. The triad can be imagined as a triangle, where between nutrition and exercise is the part representing the power of man. Between movement and hardening is the part of activities and the remaining side is human self-control.
3. The principle of "Through discomfort to comfort" when such artificially induced hunger, cold and fatigue can be understood as the price later in the comfort Salutogenetic benefit.

Salutogenesis is especially widespread in Austria and developed Europe states. It is a reaction to too much consumerism of contemporary society. Salutogenetic approach leads to the formulation of the problem and gradually coping (Antonovski 1987). The term salutogenesis first appeared in 1987 just in the book of Aaron Antonovski: Unravelling the Mystery of Health. The term salutogenesis in its base consists of two words: salus = health,

welfare, etc. genesis = origin, evolution, origin, etc. Generally speaking salutogenesis means the principle of the origin and rise of human health, its appreciation and support.

The classic way of the medical approach defines health and disease as two completely different categories (biomedical approach to the problem), thus to the patient. The physicians are testing and searching for specific causes of the disease on the principle of direct connection. As already was mentioned, in the contrast the principle of salutogenesis states. Within the framework of health and illness are defined holistically, interconnection, and at any moment a person is at a certain level. Salutogenesis focuses on the monitoring and description of human health, studying individuals who show clear signs of health, focusing primarily on those who survive in extreme environmental health situation and trying to figure out what it is that their health is so good.

2 Aim, Hypotheses

The main aim was to gradually master the basic strategies of mental hygiene skill through participating trainers and coaches in young sportsmen. Another aim was to learn the techniques of mental hygiene in elementary schools in non-sportsmen.

In the both samples were used control breathing techniques, relaxation and other psychological stabilizing techniques based on integral yoga in the integration intervention program "Development of the Rainbow" (In the Czech language "Program duhy" = "Program of mental hygiene"). The intervention program was presented in 3 variants of training methods and strategies for 3 different age groups, i.e. the Sample S1 with 9-10 years old children, Sample S2 11-13 years old children, Sample S3 14-16 years old children.

The intervention program consisted from effective mental health technician from clinically proven procedures, processed in the program corresponding to a range of 2 x 12 weeks. The program included the palliative exercises that lead to release tension and create experience of wellness, as well as exercise of concentration and self-control (Self-regulation, Self-motivation) and exercise of Self-analysis and Self-perception.

2.1 Hypotheses

H1 The intervention program will eliminate psychic problems in young sportsmen and non-sportsmen like depression and negative thinking.

H2 The intervention program will shape the Self-control and Self-motivation in young sportsmen and non-sportsmen.

H3 The intervention program will experience in all samples of participants the sense of fulfilment in task.

3 Research Procedure

3.1 Organization of research, characteristic of samples

118 teachers (92 women and 26 men) teachers (of PE in primary schools, grammar schools) and coaches from different regions of the Czech Republic were trained to implement the intervention program "Development of the Rainbow" in their education process. In the total 2367 pupils (sportsmen and non-sportsmen, pupils of primary schools and grammar schools in the age range 12-16 years old participated in the intervention program. From that 385 randomly selected pupils (186 males, 199 females) in the age range 12-16 years old were monitored during the intervention program "Development of the Rainbow" and were tested before and after the intervention program.

The intervention program "Development of the Rainbow" ("Program of Development of Mental Hygiene") based on the theory of Self-Transformation in two successive coherent cycles, when the first cycle of basic education is more or less general nature, in subsequent cycles is compounded education towards individualisation and emancipation, i.e. independence on the person of educator (teacher, trainer, coach). The ultimate goal of the intervention program was the complete independence, when the individual is able to:

- To use autonomously breathing and relaxation techniques to overcome mental fatigue and stress;
- To plan and implement adequate movement regime;
- To know the benefits of healthy eating, focus on the issue of drinks and food;
- To know importance of health sleep habits for success in tasks and effort;
- To demonstrate the necessary degree of restraint, such as recognition of tricky advertising in connection with business interests that are not in compliance with health;
- To know the health risks associated with salutogenetic triad.

Table 1 *Basic characteristics of the participants (N=385, 186 males, 199 females)*

SAMPLE/AGE	11 years	12 years	13 years	14 years	15 years	16 years	All together
Males	9	45	44	37	45	6	186
Females	15	51	44	44	42	3	199
All together	24	96	88	91	87	9	385

Table 2 *Age characteristics of participants (N=385, 186 males, 199 females)*

	Minimal	Maximal	Median	SD
Age	11	16	13,358	1,303

3.2 Methods

Follow methods were used during the research process:

- Intervention program "Development of the Rainbow" (Krejčí, 2011);
- Intentional observation;
- Test of circadian typology "CIT" (Czech version of Krejčí, Harada 2010);
- Test " POMS " Profile of Mood States (Czech version of Man, Stuchlíková, Hadgvet 2005);
- Biofeedback "Schulfried 2000x" - psychosomatic indicators monitoring;
- Analysis of school environment and benefit - weekly records and analysis;
- Statistical methods - Data were statistically processed by SPSS Kruscal - Wallis test, Fisher's exact test and of Wilcoxon test. Statistical data processing was carried out by Akane Kobayashi and Miyo Takeuchi from Kochi University in Japan.

4 Results

In our intervention program and research applications of yoga techniques as a mental training for young athletes, developing of the concentration, rehabilitative effects, etc. were repeatedly rendered positive changes in emotional states. Changes in mood and emotional states after relaxation and breathing exercises tested by the method POMS, showed the significant positive changes in the all tested factors (Table 3). We can say that after the intervention program "Development of the rainbow" positive changes in the emotional state of young athletes were found out. By the intervention program "Development of the Rainbow" Research assumptions were confirmed and behavioural problems were eliminated,

especially the psychic states like depression, negative thinking, dissatisfaction, conflicts. Improvement of the self-control and self-esteem in participating athletes were experienced. The techniques of relaxation and concentration reduce stress and mental tension and are guiding to help to develop self-esteem and satisfaction, evoke happiness. The relaxation and concentration techniques open the way to self-analysis (compare the technique of "Self - inquiry meditation" – Maheshwarananda, 2006), as well as yoga physical exercises (sarvahittaasanas) are manifested in physical fitness and muscle strength, enhances of mental parameters (memory, reaction time , etc.).

After the intervention program were participants could use relaxation techniques to overcome mental fatigue and stress, and then started with mental training independently individually in sport.

It was found that non-sportsmen participants of secondary schools felt overburdened more than sportsmen. All participants reported that they usually ashamed of shortcomings in their health and do not like to admit it. Parents entrust health problems less frequently than in childhood. All participants – sportsmen and non-sportsmen were dissatisfied with the regime of leisure time. They reported lack of time for friends, family, and would welcome more time for walks, rest and sleep. All participants – sportsmen and non-sportsmen liked much to learn techniques of mental hygiene, particularly techniques which removes fatigue.

Table 3 Significant differences in POMS test after the Intervention program
(N=385, 186 males, 199 females)

Factor	Question	M1	M2	M1 SUM	M2 SUM	shifting	significance
A	2	1	0,493	5,623	2,963	-2,659	<0.001
	11	1,096	0,569				
	19	1,067	0,562				
	21	0,994	0,462				
	25	0,716	0,395				
	31	0,748	0,480				
F	29	1,597	1,012	8,028	5,293	-2,735	<0.001
	18	1,8	1,140				
	37	1,101	0,836				
	26	1,438	1,002				
	3	0,870	0,524				
	17	1,220	0,776				
V	32	1,893	2,189	11,129	11,795	0,666	<0.001
	9	2,122	2,408				
	5	2,281	2,511				
	24	2,306	2,532				
	35	1,385	1,166				
	13	1,140	0,986				
D	4	0,986	0,548	5,551	3,267	-2,283	<0.001
	12	0,647	0,389				
	33	0,771	0,470				
	23	0,870	0,483				
	14	0,680	0,481				
	20	0,685	0,467				
	15	0,909	0,428				
C	36	1,101	0,659	3,640	2,219	-1,420	<0.001
	34	0,846	0,509				
	10	0,803	0,526				
	6	0,887	0,524				
T	22	1,212	0,592	3,368	1,770	-1,598	<0.001
	16	1,054	0,552				
	1	1,101	0,625				

Explanation:

T = Tension -Anxiety characterized by somatic tension, that may not be observable (tense, restless, nervous). This factor is denoted as T - "Tension".

D = Depression- Dejection represents depressive states accompanied by feelings of personal inadequacy (sad,useless, despondent. Designation of the factor is D - "Depression".

A = Anger - Hostility stocks of anger and antipathy to others. Identification of this factor is A - "Anger".

V = Vigour - Activity (vitality) is defined adjectives describing vigour, to some extent, non-specific positive emotion (lively, energetic, cheerful). The designation of this factor is V - "Vitality".

F = Fatigue - Inertia represents weakness, lethargy low energy (worn, tired, exhausted, etc.). The designation of factor is F - "Fatigue".

C = Confusion - Bewilderment characterized by confusion, cognitive inefficiencies associated with the inability to control attention (confused,inability to concentrate, etc.). The designation of this factor is C - "Confusion". (Stuchlíková, Man, Hadgvet , 2005).

Coaches reported that athletes could not require any special motivation or "pressure" to teach relaxation techniques and mental hygiene. All participants – sportsmen and non-sportsmen were very proactive in learning of mental training.

Modes of analysis in non-sportsmen participants identified in 72 % disorders of the circadian rhythms (late sleep, interrupted sleep, lack of sleep) and improper dietary habits. On the other hand, surveyed non-sportsmen participants spent the day very long time playing games on the computer and the internet communications.

In this context, we continue in the report of statistical analysis compared the relationship of active lifestyle in the research groups of participants: Athletes versus Non-sportsmen.

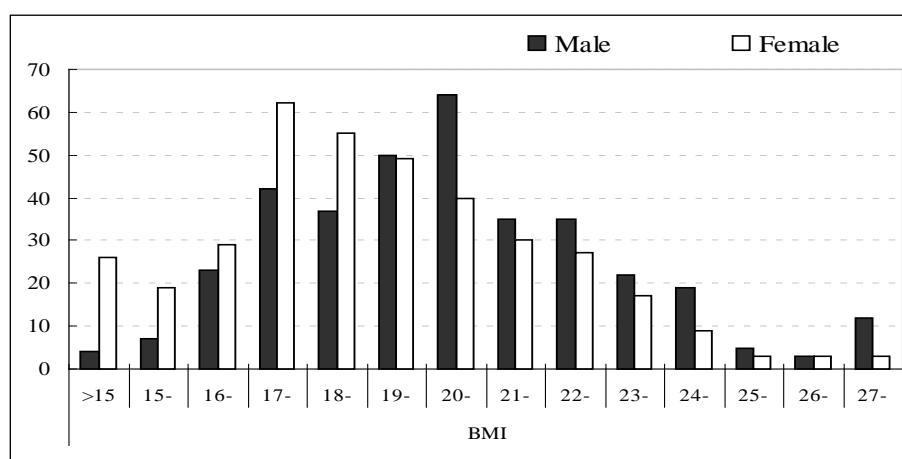


Figure 1 *The differences in BMI of observed male and female students*

BMI of the female athletes was significantly lower than BMI of monitored male athletes (Mann-Whitney U-test: $Z = -5.65$, $P < 0.01$) - see Figure 2. In contrast, no significant difference was found in BMI in male sportsmen and male non-sportsmen (Mann-Whitney U-test: $Z = -0.41$, $P = 0.680$).

A significant gender difference in preferences ME was found (Mann-Whitney U-test: $Z = -0.87$, $P = 0.381$). But, male sportsmen were significantly more morning typed then male non-sportsmen (Mann-Whitney U-test: $Z = -2.20$, $P = 0.028$).

All studied females(sportsmen and non-sportsmen) interviewed about health with their parents significantly more often than watching males (χ^2 test: $\chi^2_{cal} = 25.1$, $df = 5$, $P < 0.001$) – see Figure 3.

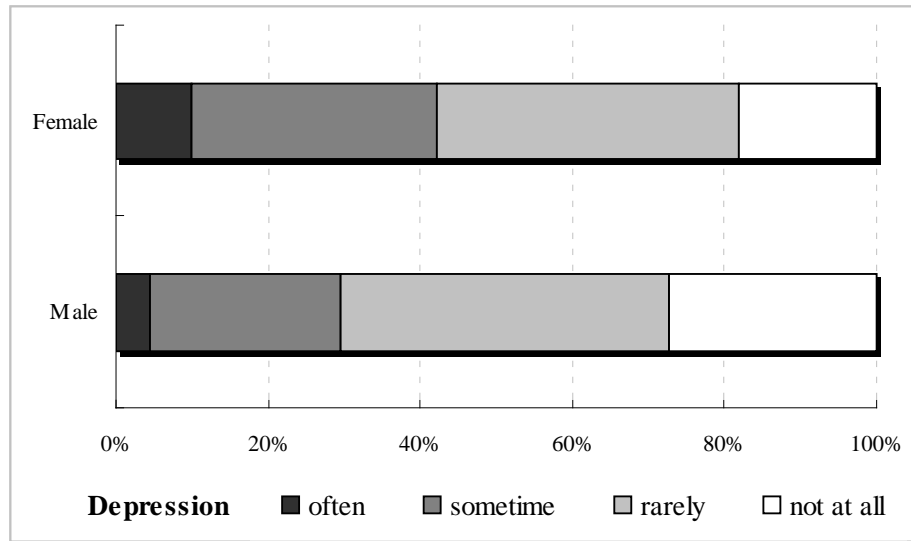


Figure 2 *Gloom and depressed mood in monitored sportsmen - boys and girls. Girls experienced significantly more depression status than boys (χ^2 test: $\chi^2_{cal} = 18.1$, $df = 3$, $P < 0.001$)*

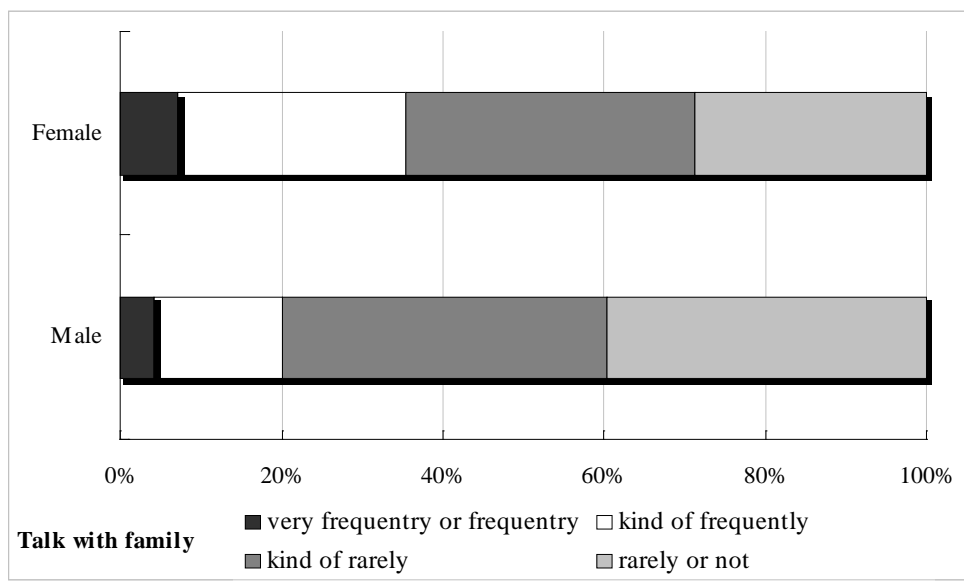


Figure 3 *Gender differences in monitored boys and girls of the frequency in interviews with parents*

We tried to find a positive correlation between sporting and non-sporting participants and mental health (frequency state of depression, anger, irritability). Surprisingly there were found out no significant differences between the sportsmen and non-sportsmen in the monitored boys and girls. It means no significant differences in the quality of mental health (frequency of state of depression, anger, irritability), (χ^2 test: $\chi^2_{cal} = 8.47$, $df = 4$, $P = 0.075$). It is a very important result of the research procedure. Probably the competition sport brings

disorder situations with negative impacts in mental state. It is also an important argument for mental training implementation in young athletes training process, because they have not enough empirical experiences how to overcome and manage stress situation and state-anxiety.

But the reason of the psychic disorders (depression, anger, etc.) of monitored male and female young participants we can search in sleep disorders and in evening typology, which is developing with age very clearly (see Figure 4).

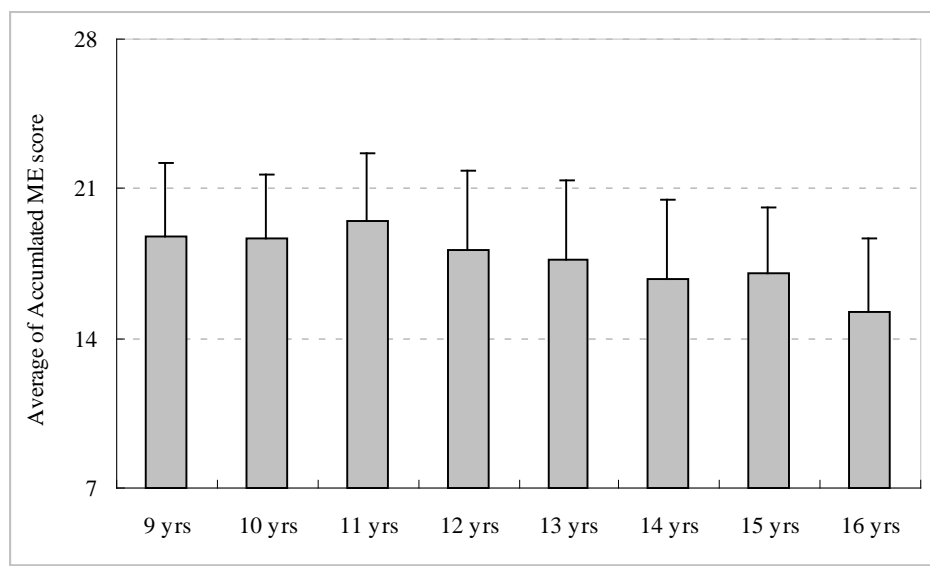


Figure 4 The correlation between M-E score and age of the respondents

The average of M-E score decreases in all monitored boys and girls with age (age group 11-16 years) - Kruskal-Wallis test, $\chi^2 = 43.3$, $df = 7$, $P < 0.01$.

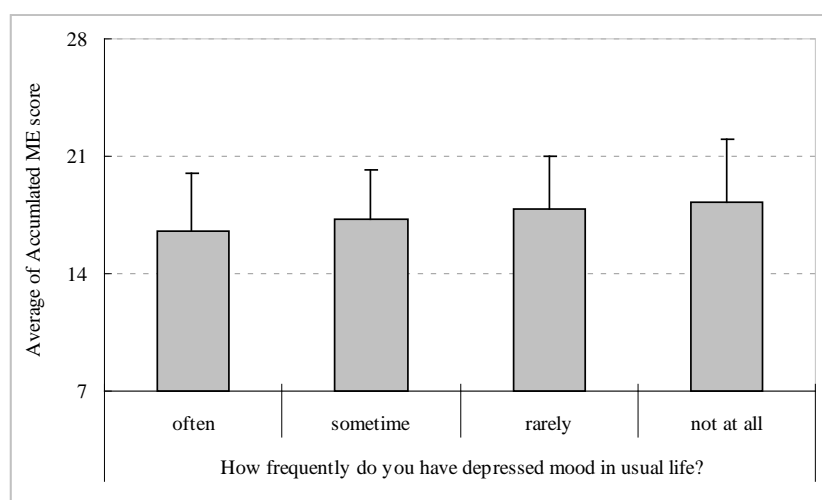


Figure 5 Comparison of the frequency of depressive states to M-E score in the investigated respondents (Kruskal-Wallis test, $\chi^2 = 16.6$, $df = 3$, $P < 0.01$)

Note: The lower value of the score presents the higher rate of Evening type.

It seems to be very interesting correlations between mental states and ME typologies of students. M-type = morningtype, E-type = eveningtype. The current life style of young evening typed girls and boys (chat, SMS monitoring, computer games until midnight and after midnight). It disturbed sleep before midnight, and thus the production of melatonin. Can develop sleep disorders and mental health in the tendency to irritability, anger and depression. Our monitoring of these facts confirmed an important part (especially in boys) of the educational strategies in mental health promotion. Mental training effects in sport clubs have strong positive influence on sleep habits.

Diverse interpretations of the concept of social learning in sport appear in the content, methods, and particularly targets. Diverse concepts exist in relation to the performance requirements. On the one hand, it is understood deliberate social learning as opposed to specific performance requirements, on the other hand is lifted as a correction that performance in sports and in life firms. As emphasized focus on performance in terms of orientation on adequate motion sequences, the experience of perfectly mastered physical structure.

The preceding information indicates that "no - social " learning cannot exist. Everything comes from social learning and social aims. Common being not only a source of inspiration, but also guaranteed the possibility of learning. Social environment, social atmosphere and contact with the environment are equally important. In this sense it is possible to watch the movement of learning from two angles and their importance for the practice to express questions: Is currently operational emphasize only biomechanical, sensorimotor or neurophysiological models in motion without considering the learning motivation and influence of the social environment? Or integrate functional for use in practice in the both approaches? Also Véle (1995) states in his conclusions that under the locomotive behaviour we can infer that the mental processes of the reference person, his intellect, motivational processes. Author points out that the physical behaviour is the importance of communication. The movement is a means of communication that can convey information. Communication importance of movement leads to the fact that the activity of the individual motion system adjusts the activity of others. This results in addition to individual motor behaviour and intra-individual social behaviour.

The speech behaviour depends on the degree of excitability of the nervous system, which can be facilitated or inhibited by the degree and type of motivation negotiation, i.e. the functional level of the limbic system. Psyche and its symptoms are always related to motivational headquarters, which not only controls the overall level of excitability, but lays

the groundwork for the formation of memory traces and thus fix the physical chains that characterize a certain type of behaviour. Teachers, trainers and coaches should be alerted to the fact that the physical learning not only mediates changes in motor skills, but also influences changes in the psyche and social behaviour.

The main objective of intentional social learning is presented in learning of mental hygiene and social skills of young athletes. From the perspective of role theory is socially competent individual can take and formulate the role, i.e. to adapt to change, but also a role reject. To be able to refuse a role is particularly important in the socialization process of children prone to pathological phenomena in behaviour. Intentional social learning in mental hygiene leads to release from stress and getting rid of fear, to build self-esteem and develop communication skills and this is very important. With the increased psychological stress automatically increases muscle tone, which is the default voltage for subsequent muscle contraction. These phenomena are engaged myoskeletal medicine. Every human movement, but also delivering a static position uses a different amount of energy and does not look like it - the motion carried with a balanced psyche and the mental tension. Coordination and reaction times are affected by mental stress.

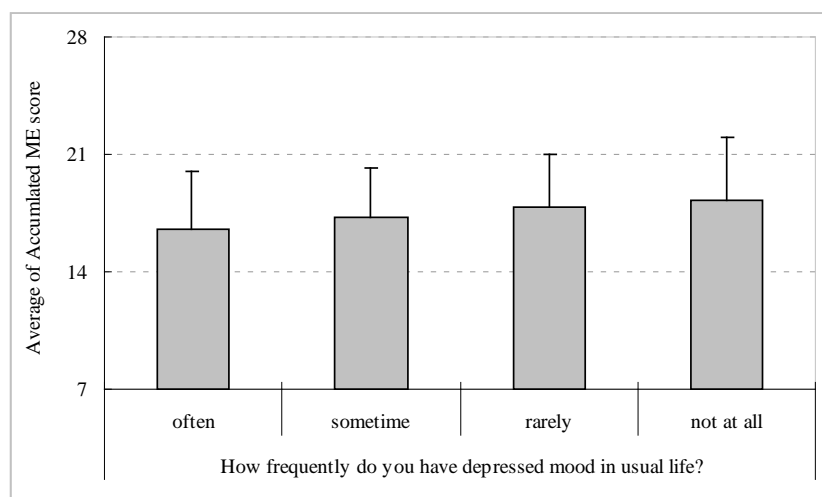


Figure 6 Frequency of depressive states in correlation to my score in the investigated respondents (Kruskal-Wallis test, $\chi^2 = 12.7$, $df = 3$, $P < 0.01$)

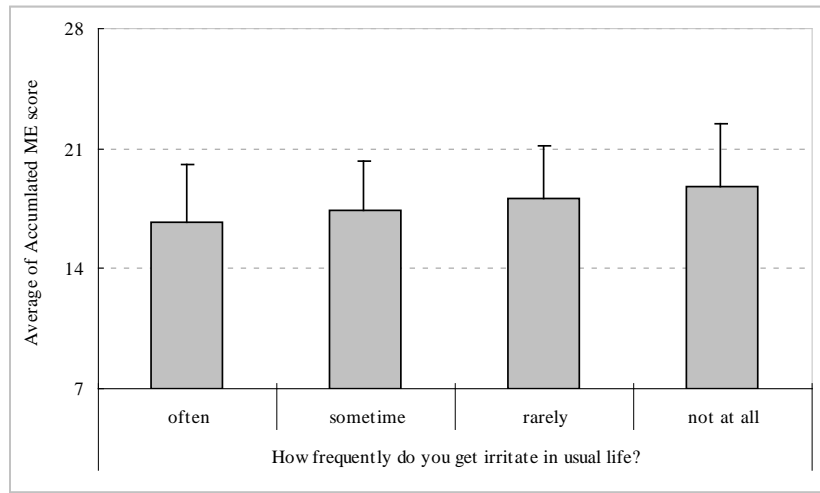


Figure 7 Correlation between mental health - frequency relieve irritation and ME score in the investigated respondents (Kruscal-Wallis test, $\chi^2 = 20.8$, $df = 3$, $P < 0.01$)

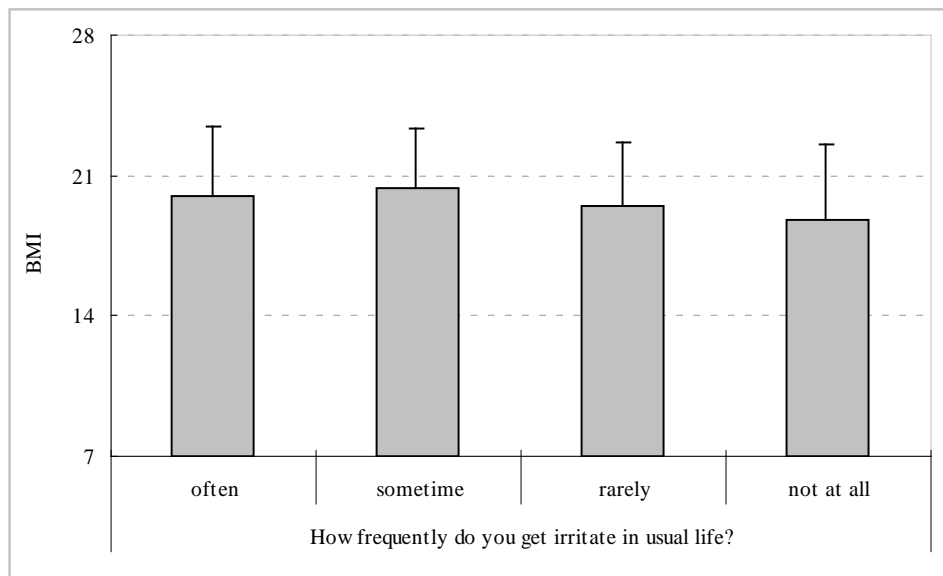


Figure 8 The correlation between BMI and the frequency of irritable state of the monitored respondents (Kruscal-Wallis test, $\chi^2 = 20.8$, $df = 3$, $P < 0.01$)

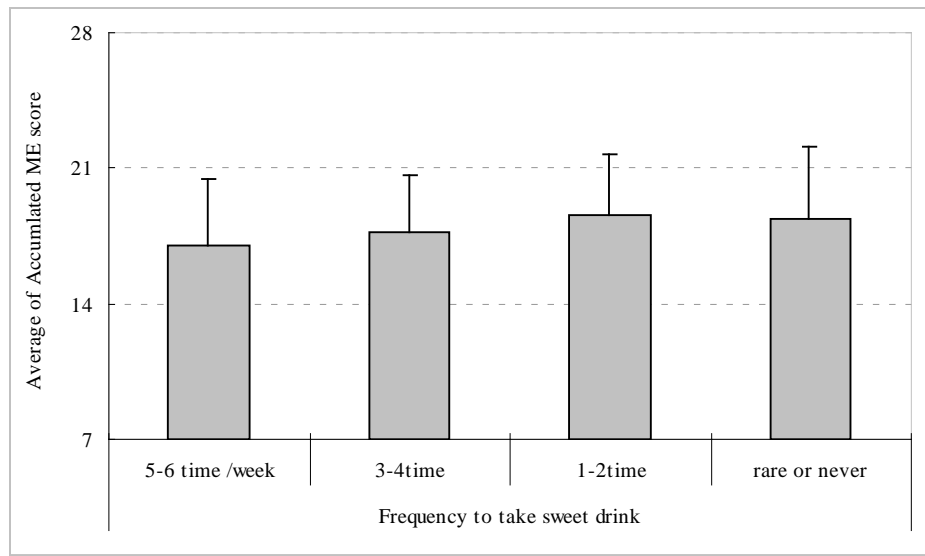


Figure 9 *The correlation between the frequency of consumption of sugary beverages and M-E score (Kruskal-Wallis test, $\chi^2 = 20.3$, $df = 3$ $P < 0.01$)*

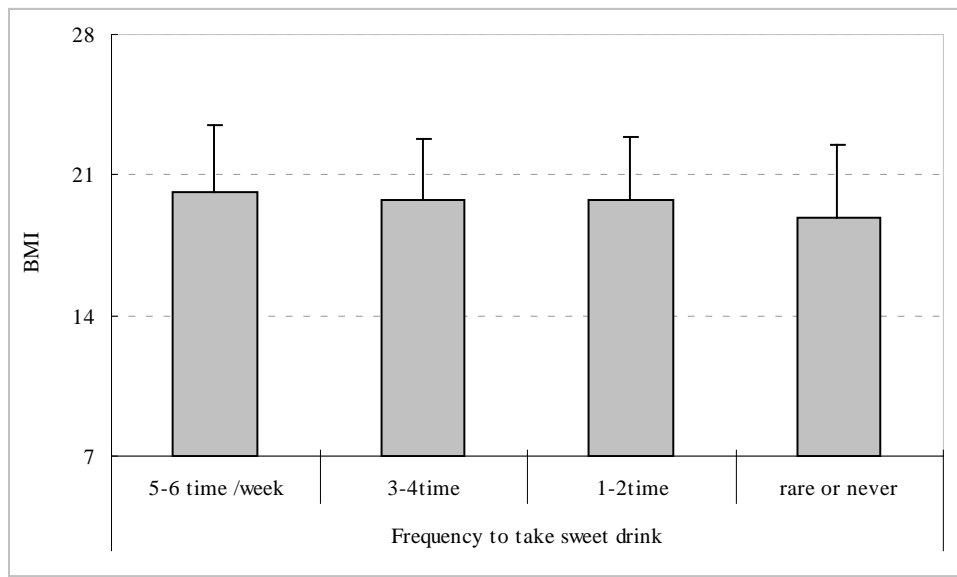


Figure 10 *The correlation between the frequency of consumption of sugary beverages and BMI (Kruskal-Wallis test, $\chi^2 = 13.7$, $df = 3$ $P < 0.01$)*

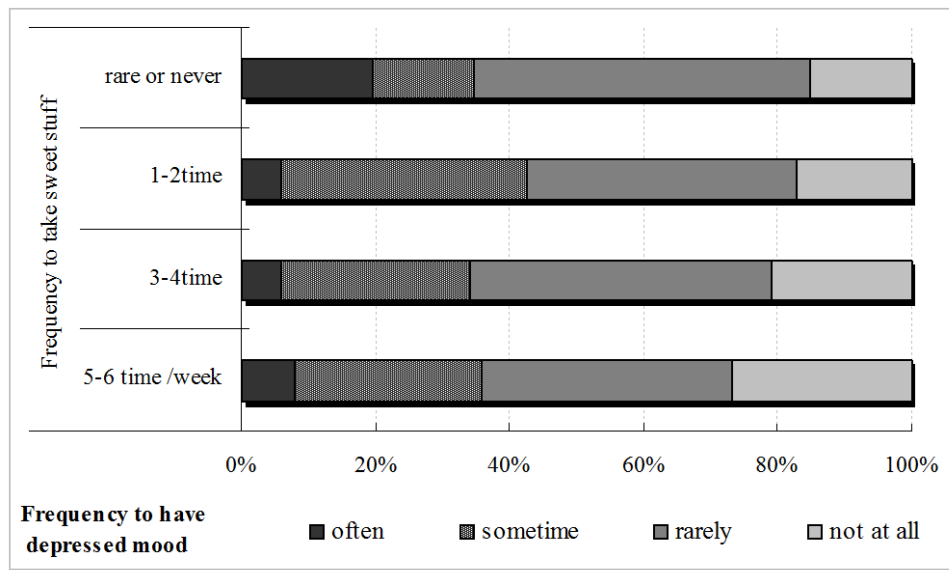


Figure 11 The correlation between enjoyment of sweets and mental health - Frequency of depressive mood (χ^2 test: $\chi^2_{cal} = 24.7$, $df = 9$, $P < 0.01$)

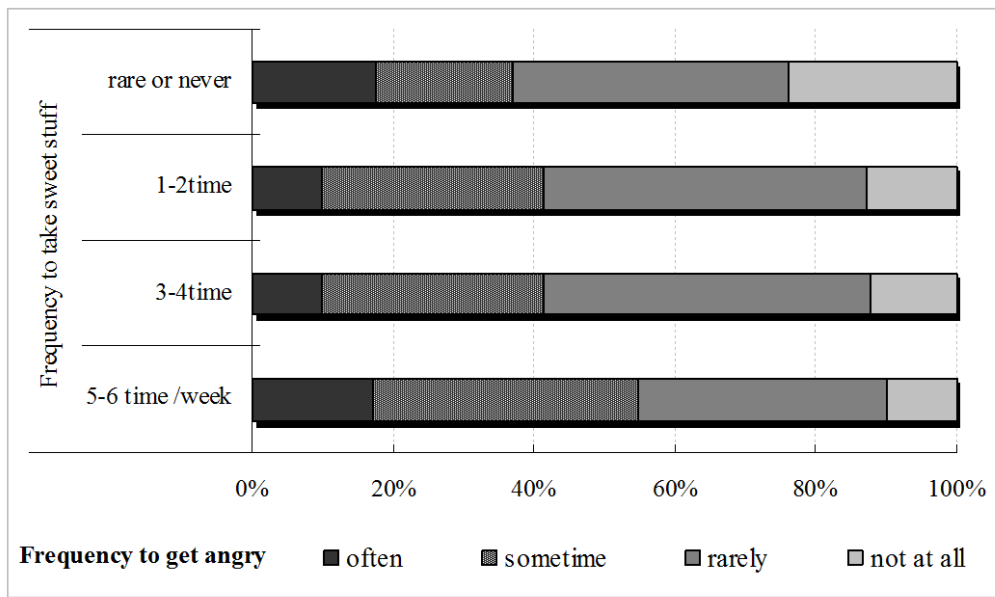


Figure 12 The correlation between enjoyment of sweets and mental health-frequency rage (χ^2 test: $\chi^2_{cal} = 22.6$, $df = 9$, $P < 0.01$)

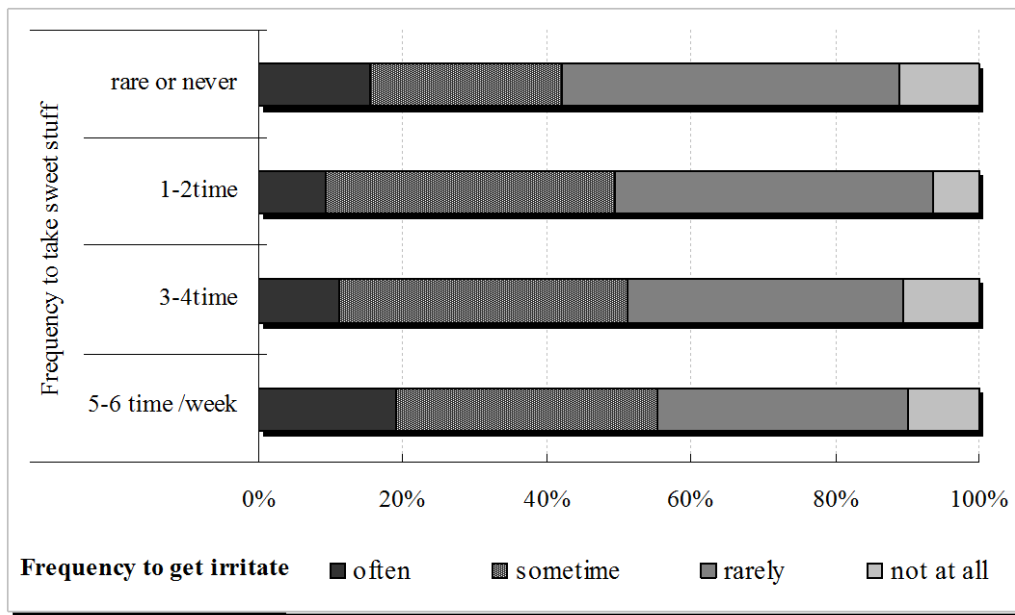


Figure 13 *The correlation between enjoyment of sweets and mental health - Frequency of irritable condition (χ^2 test: $\chi^2_{cal} = 15.6$, $df = 9$, $P = 0.075$)*

For a more arguments about the positive effects of adequate movement regime attest to the health of the pupil still selected results for the adequate movement regime , when the survey attended by 536 pupils from schools we monitor (265 boys , 271 girls) , again in the age range 11-16 years.

For all respondents a questionnaire about corresponding motion mode was applied (Krejčí 2010) containing 10 questions. Statistical analysis of the data was performed by t-test, Fisher's exact test. According to Fisher's exact test was demonstrated significant difference in activity" physical education" for the last year and last week , $P < 0.0001$. Over the last three months and the last year has not been demonstrated significance of $P = 0.0793$. School physical education certainly plays an important role in obtaining adequate variety of physical activities that respondents of both sexes widely used, as evidenced by the data for the past week. In retrospect activities for the last three months and the last year of school physical education gradually "fade" and entry activities carried out in the past year occurs sporadically. It is not sure that it would at the time respondents did not make, but simply not considered as physical activity, which is necessary to mention.

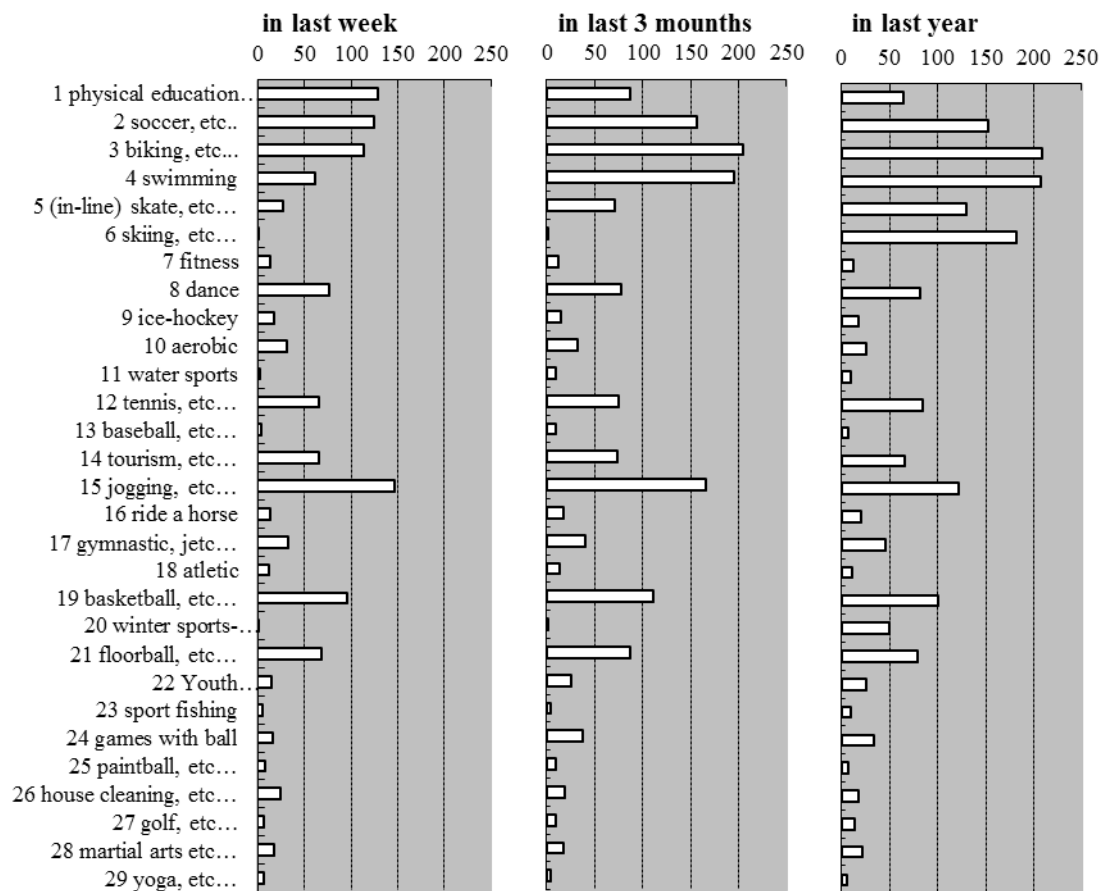


Figure 14 *Preference of movement activities in leisure time (N=536, 265 males, 271 females)*

Conversely physical activities such as sports games, swimming, cycling and skiing were reported. In terms of mental health is a very appropriate physical activity for adolescents, and to examine the possibility of implementing the natural environment and in terms of the compensation effect of swimming, cycling on the human psyche (see Figure 14).

According to Fisher's exact test was demonstrated significance in challenging activities between both time and finances $P = 0.0018$ and the consideration of time and distance $P = 0.0013$, for it was acceptable between finance and the distance $P = 0.0031$ and between time and distance $P = 0.0013$. The results confirmed that the biggest problem for the respondents to organize physical activity time. Unfortunately, the answers to "How often have you done some physical activity in the past week," a significant percentage of respondents replied that they did not find time for physical activity or one day (see Figure 15).

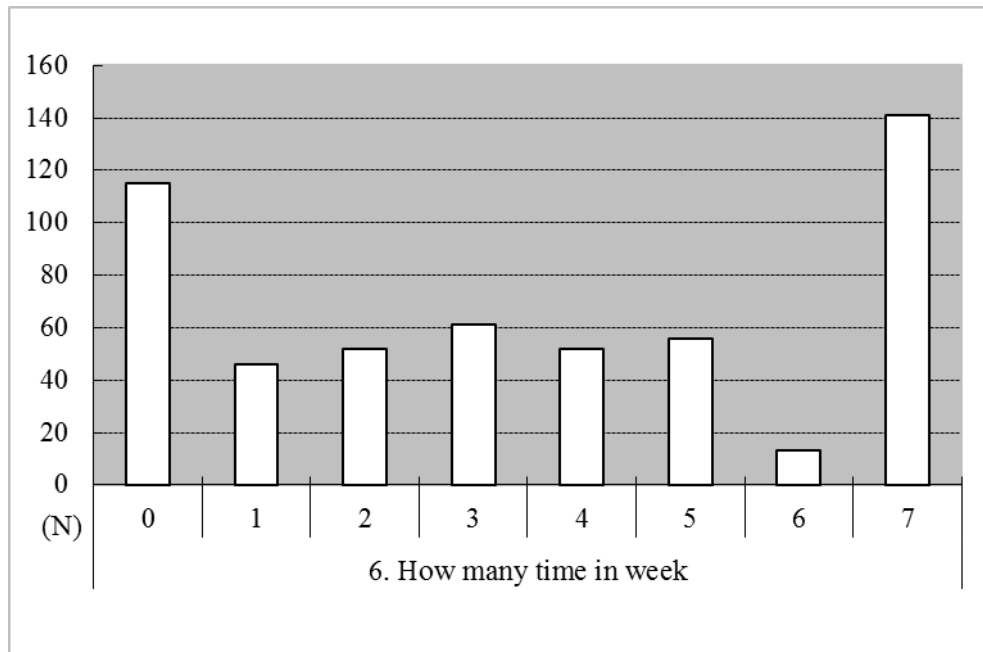


Figure 15 *"How often have you done a physical activity in the past week"*
(N = 536, 265 boys, 271 girls)

On the other hand, it is gratifying high number of respondents who take the time to exercise every day. This shows the positive impact of our intervention strategies in the field of mental hygiene and adequate movement regime for participating students. These results also shows a very good capacity management schools in relation operation of leisure and physical activities are a sign of the adequacy of impairments respondents.

Further results show that the vast majority of clients are not a problem reachability favourite physical activity, and the major, dominant feelings during physical activities are joy, the joy of the game, changing the mood-compensation. Only about 10% of the examined children tiredness is captured. These results suggest spontaneity and adequacy of physical activities with high mental health effect and a positive mental realignment (see Figure 17, 18).

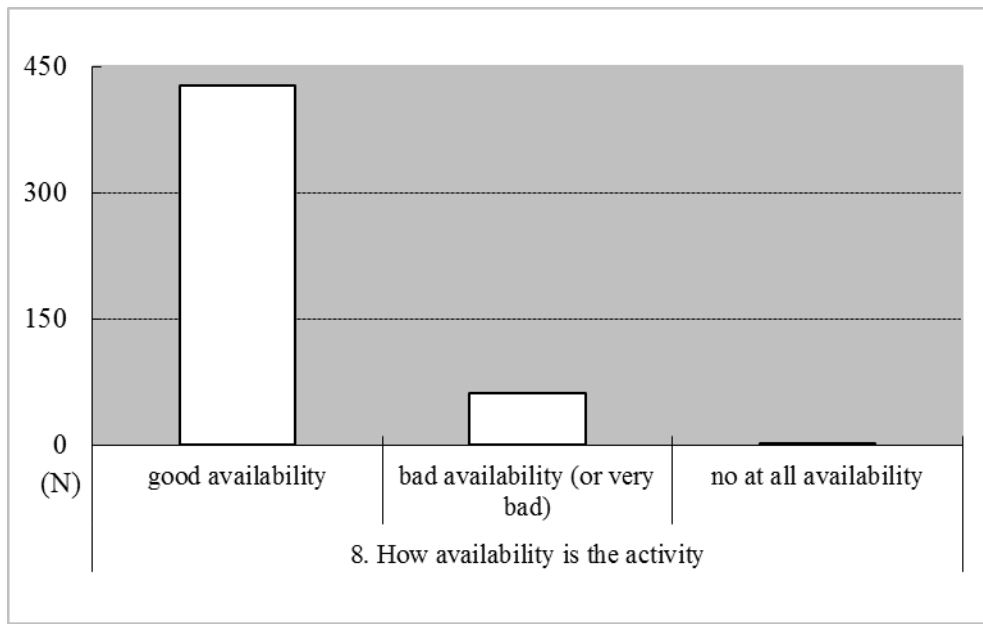


Figure 16 Indicate how you are running physical activities available to you (N = 536, 265 boys, 271 girls)

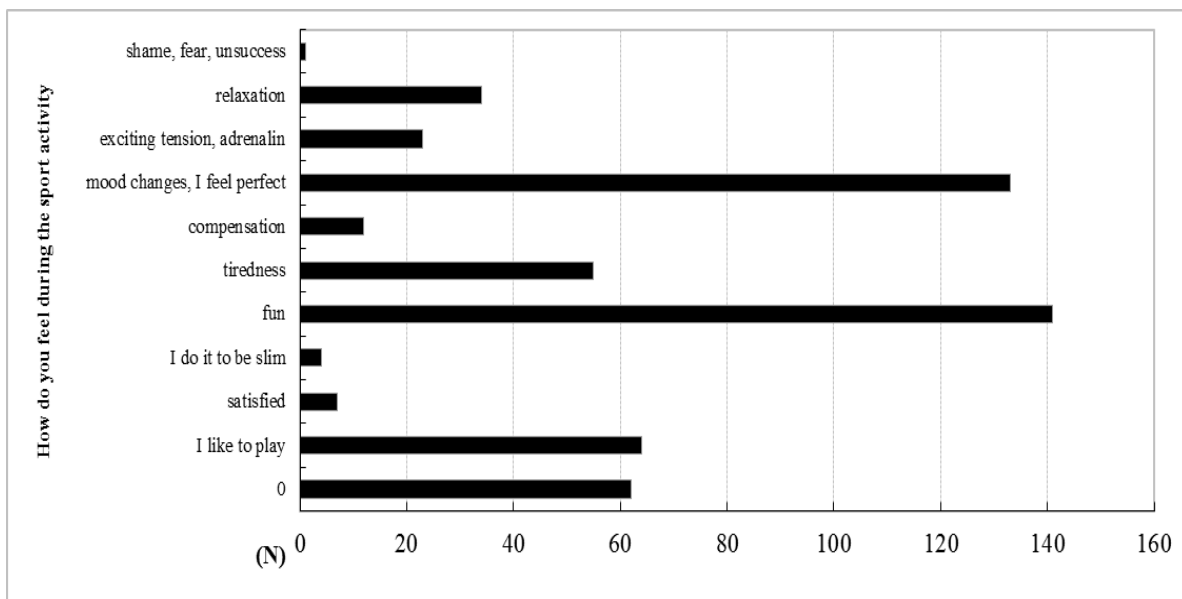


Figure 17 Indicate how you feel during physical activity (N = 536, 265 boys, 271 girls)

Further analysis of the results revealed an interesting contradiction in the fact that the most popular physical activity to which the respondents desire to come back, are often not mastered the appropriate level of physical education. Respondents report value of grades 3 or below. The remarks and values are obvious for swimming and skiing/snowboarding and surprisingly even for the ride a bike. Yet there were swimming and skiing/snowboarding by respondents of both sexes along with cycling the most popular physical activities.

Certainly in terms of security is downhill skiing and snowboarding fully proven adequate to assess the level of mastery , but apparently it is the age- motion learning still unfinished, and may be an appropriate incentive "challenge" to improve their implementation and enforcement.

Nevertheless, we recommend that teachers and parents to support the movement of primary school pupils learning an appropriate methodical guidance to avoid both unnecessary injuries and the risk of it, and to consolidate the wrong engrams. Poor exercise habits do not allow spontaneous implementation and saturation - see page 6 of the text - and may be the cause of reduced self-confidence and fear of failure.

A popular physical activity, to which the youth tend to come back, is dancing, which certainly has a positive effect on mental health and it is possible that interest educationally widely use in school children. However, it is necessary to take into account the risks, especially discos, with the risk of addiction and other risk adolescents.

The final result of that, here again, and that was the same for both sexes, preference is the time when the physical activities performed by respondents. For both sexes equally dominated the preference of afternoon and evening exercises. This result is very surprising and rather indicates a low level of knowledge about the health benefits of morning exercise than a lack of time in the morning. These benefits are highlighted especially for weight reduction.

There is a morning fitness activities effective in terms of mental hygiene for the good feeling of freshness and harmony throughout the day. Also, research on circadian rhythms confirms meaningful and positive health effects of morning exercise (Harada et al, 2007). In our observation in 2010 in a group of 738 primary school pupils (from different regions of the country, of which 358 boys , 380 girls) showed that students who engage in sport (regularly train - 269 boys , 262 girls) are significantly more morning types no sport than boys (89 boys, 118 girls) - Mann - Whitney U - test: $Z = -2.20$, $P = 0.028$. Yet in terms of BMI was no significant difference between sportsmen and non-sportsmen (Mann - Whitney U-test: $Z = -0.41$, $P = 0.680$).

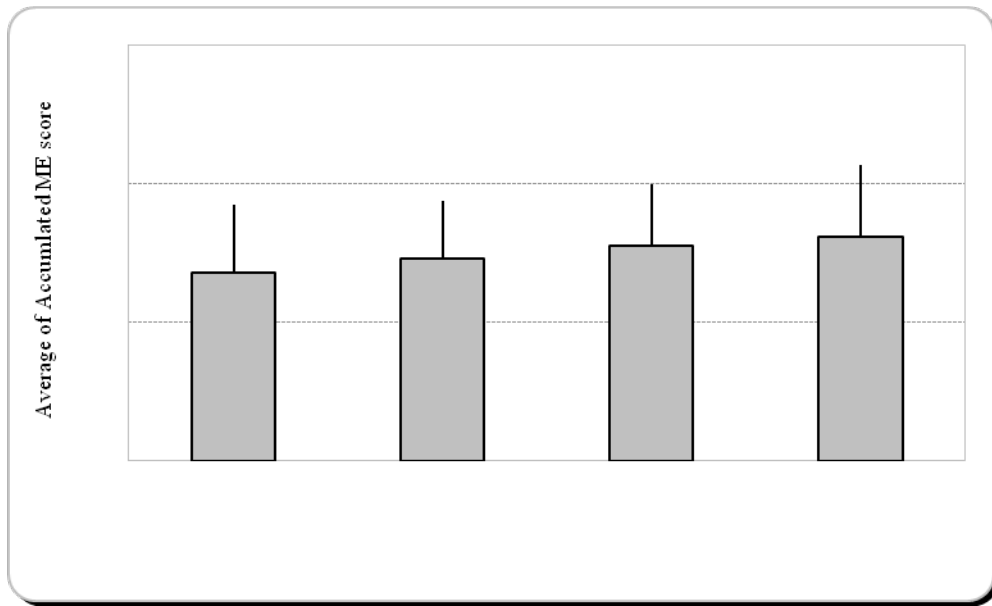


Figure 18 The correlation between depressive states and ME type ($N = 738$, 358 boys, 380 girls) - Kruskal-Wallis test, $\chi^2 = 16.6$, $df = 3$ $P < 0.01$

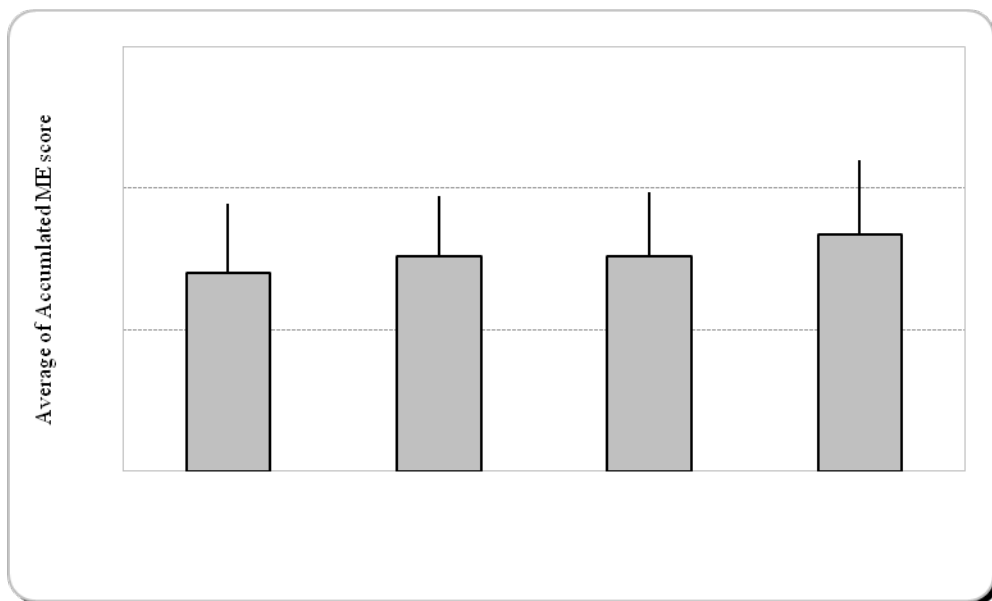


Figure 19 Anger correlated to ME type ($N = 738$, 358 boys, 380 girls) - Kruskal-Wallis test, $\chi^2 = 12.7$, $df = 3$ $P < 0.01$

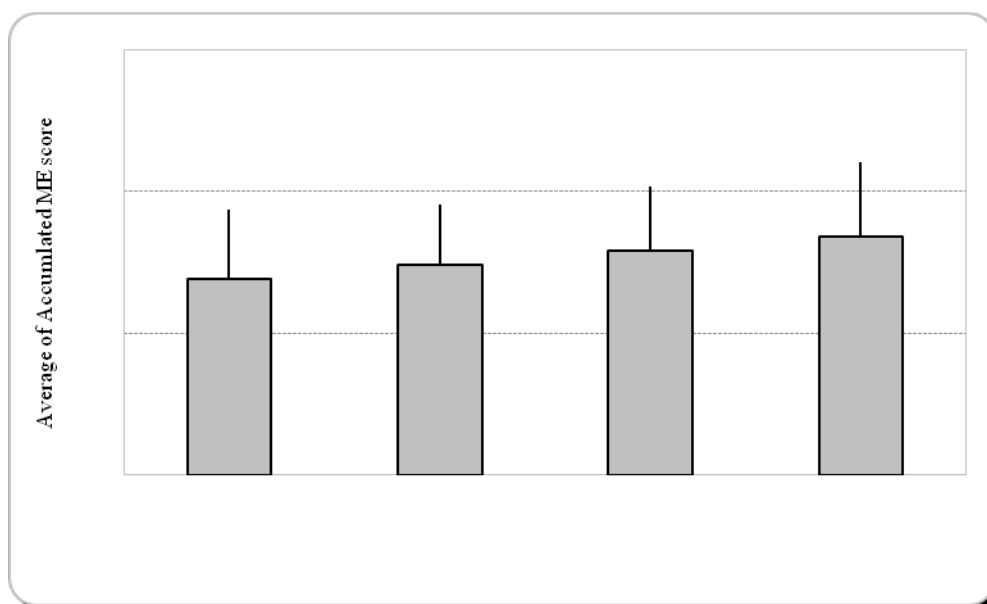


Figure 20 Irritability in correlation to the type of ME ($N = 738$, 358 boys, 380 girls) - Kruskal-Wallis test, $\chi^2 = 16.4$, $df = 3$ $P < 0.01$

5 Discussion

Accretion of the economic costs in the area of healthcare in all European countries, including the Czech Republic, at the turn of the 20th and 21 century appears the necessity of cooperation of the EU in dealing with the negative consequences of lifestyle on health.

Mental health has been declared in the EU in 2008, a fundamental human right. He stressed the strong influence the state of well-being on the quality of human life and human health. Good mental health improves learning ability, and work is the basis of prosperity. The level of mental - mental health and mental state of well-being in the population is therefore crucial for the successful development of the EU, education, social and economic aspects.

Developing the mental health of the EU population, including all age groups, gender, ethnicity and socio-economic layers requires support quality intervention programs. As a priority issue resolution of the depressive disorders and prevention of suicidal behaviour was declared. As another priority it was declared to care for the mental health of young people in relation to education in the field of health promotion.

More than 50 % of mental disorders occur during puberty and adolescence. Mental health disorders suffer from 10 % to 20 % of young people in the EU. It is necessary to start with education and training in mental health in the school education, and has been, if possible, from pre-school. In this context, a very important place have also movement games on different bases, i.g. martial games (Bartík 2010) .

In the years 2008 - 2009 by the authors of the project GACR 406/08/0352 research carried out in collaboration with a Japanese university in Kochi. Cerci, Harada, Wada (2008 - 2009) conducted research in Czech and Japanese children aged 3-8 years. The authors examined 697 Japanese children (360 girls, 337 boys) and 627 Czech children (305 girls, 322 boys) in collaboration with parents standardized questionnaire circadian typology (Czech version Krejčí, Harada 2010).

The research analysed the lifestyle, nutritional habits of children, sleep and mental condition. The results showed that Czech children were more morning types than Japanese children, while Czech parents were more evening types than Japanese parents (Mann - Whitney U - test, $Z = -12.33$, $P = 5.97 \times 10^{-6}$.) Czech children were more depressing than Japanese children who had a higher degree of irritability and anger expressions. Children who were depressed or had a higher degree of irritability and anger expression were significantly evening types, in both countries (Mann - Whitney U test, Czech: χ^2 - value = 13.02, $df = 3$, $P = 0.0045$; Japan: χ^2 - value = 12.87, $df = 3$, $P = 0.0049$). The results confirm that the resynchronization of circadian rhythmicity is associated with emotional instability and tendency to unrelieved symptoms (Wada, Krejčí et al. 2009). Intervention programs to promote healthy lifestyles and sleep in the development of mental health are very important and useful and should be part of school education.

Therefore it seems essential in the school environment to monitor and influence marks somatic and psychosocial development of appropriate regulatory teaching strategies in the field of mental hygiene (relaxation techniques, breathing exercises, introspection and concentration exercises and autosuggestion).

The situation perceived as a threat to personal integrity affect the reduction of self-esteem and self-image, which subsequently leads to undesirable changes in behaviour in terms of health care and support - such as lack of interest in diet, physical activity on any level, violations of circadian rhythms, excessive or inadequate food intake, drug use, etc. An important part of prevention is adequate exercise regimen. The basic educational strategy, there is intense activity in the periphery, i.e. the physical apparatus of the young man. This can affect mental and functional ability of adolescents and thus can withstand stress without health risks. However, it is important to work on the transformation of "Self", which allows you to maintain self-control and self-esteem, and the perceived variability of situations in life in a broader context, i.e. with understanding and insight.

Humanistic psychology is based on the thesis that man is a unique and free being, with a tendency towards personal growth and continuous development. The man is in terms of

teaching strategies in the field of mental hygiene to maintain a holistic approach (holistic, shape and aspect system of mental hygiene) with emphasis on the present. At the change of school education towards health promotion (area "People and Health" in primary and secondary schools - the introduction of the subject "Health Education ") opens the opportunity for learning self-regulation techniques (in particular, relaxation and breathing techniques) that are valuable throughout life person. Self-regulatory techniques lead to improved homeostasis and positive effect on biological rhythms, including sleep and breathing rhythms. So each student can be heartfelt and enjoy close links with the psyche of the physiological response of the body and motor peripheral areas.

It is the area of mental health - issues of self-acceptance and self-realization adolescent, negative stress factors in the development of personality, self-control and self-control in stressful situations, resolve conflicts in the past have not been in school education intentionally addressed in terms of education, in terms of training. However, mental health is closely related to social health - networking, communication, relationships, and education to the environment - and physical health - fitness, vitality, immune system health. Partial research shows that the mere knowledge of how to take care of your mental health is not in them very effective. The most promising is the teaching of specific mental hygiene practices, together with the strengthening of self-confidence, dignity and autonomy. Anyone who respects "Self" can be more easily motivated to make something useful for themselves and the health of others. The presented research projects analysed motivational and emotional resources optimization strategies for education on responsibility for their own health, in the context of ontogenetic and sexual peculiarities of man. To obtain the necessary professional competencies of teachers involved in the application integration program was set up training facilities psychological and ethical therapeutic in the form of lectures, seminars , practical exercises and courses for teachers.

Self-Control and physical and mental balance of pupils and teachers were trained in the school curriculum.

- Stage 1: training of the teachers , model verification teaching mental hygiene in the school environment in selected primary schools;
- Stage 2: verification of teaching strategies of the mental hygiene in all primary schools participating in the research project, working with teachers in their educational practice, data collection, analysis and comparison of the results of the experience.

Description of integrative yoga techniques used in the intervention program should be personally authentic, enough empathic and accept full. Yoga leads to the perception

of internal sensations during movement (tension and release) and to assess their reactions. Do not force self to constant comparison with others. This will affect in a positive sense of self-regulation and self-esteem. Anxiety or fear as subjectively perceived state of emergency may be the cause of many diseases (stomach problems, allergies, asthma, as well as poor body posture, etc.).

Integration intervention program was implemented in individual schools in two consecutive three-month coherent cycles. Once per week took place in the teaching of health education lecture or discussion on a chosen topic and then followed by practical training unit. Participants learned here that you can perform at home every day. The optimal length of the joint meeting (lecture, discussion) is 45 minutes and 45 minutes training session. Integration intervention program consisted of physical yoga exercises - asanas with a strong self-regulatory effect (anti-stress), in sequence from simple yoga exercises dynamic nature of the demanding āsanam power and balančního type , followed by breathing exercises, relaxation techniques, training techniques, concentration and self-examination ("Self - inquiry meditation"). Under the two groups of students was applied to individual teachers access (tutoring, consultation under the specificities of particular participants). Lectures and discussions have been focussed on the moral - ethical aspects of human life, regulation and restriction of stressful situations, nutrition and fluid intake, prevention of ill health.

In stress situation defence mechanisms is applied that allow survival of the organism exposed to danger. Stress response then activates the sympathoadrenal axis. It stimulates the sympathetic activity, i.e., a branch of the autonomic nervous system, which do not control their will. Neurotransmitters, substances transmit nerve impulses to sympathetic governments, as noradrenaline (norepinephrine). The second component of the vegetative nervous system, the parasympathetic nervous system, has a predominant influence in the organism and controls vital functions. Sympathetic and parasympathetic aspect influences on the internal organs, depending on whether the body is at rest, or serves some power.

Stress in the teaching profession is also a vocal exercise. Speaking exhausted. The brain activates the axis hypothalamus - pituitary - adrenal glands. The hypothalamus is the part of the brain where there are various control centres, among other things, also controls the levels of various hormones in the blood. If necessary, sends chemical signals to the pituitary gland which reacts blasts hormones directly affect the activity of other endocrine glands.

In the case of the stress response is stimulated by the adrenal glands. Adrenal medulla released into the blood adrenalin (epinephrine), which is structurally similar to norepinephrine

and has similar (though not exactly the same) effects. Cortex produces adrenal steroid hormones called glucocorticoids - cortisol and cortisone, which play an important role in regulating metabolism. Adrenalin and glucocorticoids are among the so-called stress hormones (norepinephrine, which carries nerve impulses - neurotransmitters). Increased sympathetic activity and stress hormones affect the activity of most organs in the body. This increases the blood flow (but actually diverts blood from the digestive tract as a limiting his activity), stress stimulates the heart and increases blood pressure, precisely because of security adequate distribution of nutrient circulation. There is a release of energy reserves of the organism, primarily glycogen breakdown, from which it releases glucose into the blood. This whole process is very energy intensive and result in physical condition and mental exhaustion.

According Jahodová (in Mareš 2002) are signs of mental health summarized in six points. They can be used to determine the characteristics of the mental health of teachers:

- The attitude towards self (awareness of past and present; healthy person knows where is going and has no doubts about identity);
- Growth, development (self-realization in the growth and development);
- Integration (unity, wholeness) - balance mental strength , frustration tolerance;
- Autonomy, independence and self-determination (the ability to control his behaviour, control your actions - the emergence of self-confidence and self-assurance);
- Adequate perception of reality (real, objective view of the world);
- Manage their environment (the ability to love, to adapt).

Evaluation of stress profiles observed teachers enrolled in the project PACZion showed physical level as the most affected by stress. The average stress profile observed teachers from 31% concentrated in the physical level, from 28% in emotional level, from 24% in cognitive level and 17% at the social level. It can be said that the problems related to the perception of stress in the teaching profession are felt in the greatest degree as physical (fatigue, susceptibility to disease, sleep disorders, somatic complaints, and loss of physical strength). To a large extent they are perceived as problematic emotional issues related to their superiors teachers (feelings of sadness, helplessness in conflict situations, feelings of anxiety and fear and lack of recognition and awards) - see Kornatovská (2011). The least were disrupted social relationships (to students, to colleagues, to other family members). It is

evident that educators are trying to fulfil their professional mission, despite considerable mental and physical exhaustion.

Based on the obtained results, we recommend including of mental and relaxation techniques training into the school program. It is highly recommended to work on the optimization of circadian rhythms and adequate exercise regimen. Based on an appropriate exercise regimen can utilize and improve the innate ability to move and pay attention to preventive health care for adolescents. Paradigm for the regulation of well-being and wellness progress is a continuous transformation of “Self”.

For mental health is essential to strive for harmonious living, have the time and emotional support for rest and lead a life in the family so that it does not loads and stresses. Active pursuit of adequate physical activity in an adequate kinetic scheme not only increases the level of physical fitness, but also affects the psyche (self-esteem, self-assessment and evaluation of an individual by others) and may also affect social relationships and strengthening ties between teachers, between teachers and parents and between teachers and students.

6 Conclusions

Prevent the effects of stress is easier than removing them. Mental health and wellness status is closely linked with the system of values. Each person should himself clarify what is for him a valuable target to which it will focus its efforts, what will be preferred. Also satisfactory social and emotional relationships are an important part of life and strengthen resilience to physical and mental stress. Mental hygiene should become an essential part of the training of young athletes. This training is actually transformed into purposeful work on the Self, into purposeful education to wellness.

Learning is one of the basic human activities and can say that it is part of the human personality. The process of learning is reflected previous experience, knowledge, skills, attitudes, characteristics and emotional - motivational component of a specific person. Learning is inseparable from education. However, it should be an intentional action in order to achieve a positive development. The intentionality of learning and education results from an explicit goal or goals. Explicitness means that the objectives are clearly spoken or written and systematically collated.

Setting of goals does not automatically follow that it is familiar with both sides of the educational process. Some trainers recommend that sportsmen presented the objectives of the knowledge and skills objectives while focusing on attitudes and values has to know the

teacher or parent who chooses appropriate situations and conditions for their achievement. The phrase "positive development" that the person to whom it is caused to be passed to the next level, expand their horizons of knowledge. In the teaching of mental hygiene should be emphasized that all students have the right to develop in this area, regardless of their ability, age, physical condition, although development will not always have the same tempo and results for individual young athletes.

The most important phase of teaching mental hygiene should take place from early childhood in the family. In the school environment should be respected uniqueness and particularity of each person, as guaranteed by the Convention on the Rights of the Child. Teaching Mental Hygiene is educational in nature and as such is part of the "way of life" (Říčan 2006) with a specific use in life stages of man. It is also important to realize, teaching mental hygiene is part of the human heritage, which are frequently used techniques, and activities proven centuries, set in modern living context of the current generation and its further development. Mental hygiene, as it was already mentioned is closely related to the process of adaptation to the internal and external environmental conditions. Since school education is teaching more and more enriched auto education and gradually turning into self-education. One becomes more autonomous in the techniques of mental hygiene, realizing the objectives to which he wants to come and choose the appropriate means to achieve them. At the same time, of course, making continued influence of social environment - family, partner, children, employers, communication, etc.

Nešpor et al. (1996) provides evidence of the usefulness of relaxation exercises and yoga for other reasons. They can be as moderate as psychosomatic complaints such as headaches, replacing the addictive painkillers. Zemánková (1995) dealt with the use of yoga in hyperactive children with attention disorders. From the psychological point of view it is important that the change in mental status, the child actively involved, which enhances his self-esteem and confidence.

It is essential to research of leading experts on the impact of yoga techniques to functional changes in the autonomic nervous system. Team of authors Kolisko, Dostálek, Selinger, Tillich, et al. (1997) managed by spectral analysis of heart rate variability non-invasive way to monitor functional changes in the autonomic nervous system during yoga exercises. It was found that the influence of yoga exercises there are significant changes in the actual function of the autonomic nervous system in favour of increased activity of parasympathetic. It is very important for the overall health of the individual, since optimal

functional state of the autonomic nervous system modulates the activity of vital organs and endocrine glands.

Dostálek (1996) states that it is a system of yoga are very elaborate system of physical and mental exercises, which if properly applied, can induce positive changes in health status in severe disease. Changes in activity of the parasympathetic and sympathetic nervous system are associated with changes in the body hormonal activity of the body. To register these changes the functional state ANS pre, post and during yoga exercise can clarify the effect of exercise on functional changes of ANS during yoga positions, breathing exercises, but also in mental exercises such as during relaxation and meditation techniques. In comparison with conventional means of physical education, exercise endurance character as they have in the regular implementation of a positive effect on the normality of the functional state ANS, yoga achieves a similar effect an appropriate combination of other techniques that are diametrically opposed. Increased parasympatikotonie as a result of yoga exercise has a positive effect on psychosomatics.

During the above research revealed significant changes in the functional state of the autonomic nervous system among a group of people exercising yoga and people no practicing. Increased parasympathetic activity in the experimental group highlights the important role of training and correct position with a feeling of muscular and mental relaxation. Due to improper muscle activation it can provoke different effects to character rather gymnastic fitness exercise. This effect highlights the particular importance of technology implementation, especially the consistency conscious movement with breathing.

As it was already discussed above, in mental training in young sportsmen a special attention is giving to the breathing and there is a wide range to master breathing techniques, which according to modern physiological knowledge affect the current operational status of ANS and its overall tuning. Dostálek et al. (1996) focused on examining the impact of the full yogic breathing on the autonomic nervous system.

6.1 Recommendations to auto regulation techniques practicing in sport training

Very significant differences in momentary functional state of ANS revealed just depending on respiratory rate. It was found that the respiration frequency and spectral performance parasympathetic components of the ANS and an inverse exponential dependence. Individuals with a reflective pattern idle slow deep breathing was found in the frequency spectrum of ANS increased spectral power of the frequency components and a relatively high proportion of frequency components, which very likely related to

parasympathetic activity. Individuals with a reflective pattern have faster breathing frequency and spectral power is significantly lower in the parasympathetic components.

The formula the full yogic breath characteristic rhythmicity breath has a significant influence on the course of heart rate, which leads to synchronization of breathing pattern during the heart rate (respiratory arrhythmia), which is associated with increased activity of the vagus nerve, as a result of rhythmic changes in pressure in the chest. From this perspective, shows a significant influence respiratory rate and breathing techniques on the overall tuning of the autonomic nervous system towards parasympathetic (decrease in blood pressure, heart rate, skin resistance changes, changes in EEG rhythms), which usually are found in healthy individuals exercising yoga. It is obvious that this long- tuning ANS also related to changes in catecholamine levels and can cause relatively greater emotional stability organism of the person practicing yoga exercises. Due to psychogenic stimuli from cortical parts of the CNS can be condensed in a state of consciousness during relaxation and meditation techniques targeted to achieve significant changes in the functional state of ANS. Using spectral analysis of heart rate can be monitored by changes in the functional state of ANS and use this method for objectification of the effect of exercise on the body as a method of biofeedback.

According Polášek (1995) we can observe during training follow positive effects:

The effect on muscle tone

Muscle tone is resting tension which remains in muscle, even if we are in a relaxed state such as sleep. Its level depends on the state of our psyche. When we are in mental tension, we cannot well be released or physically ill sleep and wake up in the morning like broken. Yoga exercises are performed with maximum relaxed muscles. It is deliberately stretching for some muscle groups. These muscles are stretched and thereby tensions are lowers in resting. This in turn affects the psyche, which adapts to the new level is muscle tension.

The effect of the internal organs

As is well known internal organs cannot control the will. Functioning of internal organs, however, closely related to mental state. If a person such as anger, fear, joy or see if something good or bad has an effect on the internal organs. The manifestations of this effect may be redness, pale, rapid breathing and heart frequency. Some individuals may even lose consciousness. In resting, relaxing positions (asanas) there is a change of pressure conditions in some internal organs and thereby changing the mixing ratios which affects the rhythm of their activities. This change in turn influences the respective centres of the brain which is

reflected in the mind, especially the subconscious. This is in addition massage of the internal organs and stimulation of the activity, of the subconscious to remove long-standing tensions.

The effect on the emotional state

Mental balance is closely related to the ability to concentrate. Restlessness of man is a lot of energy because they have to think of many things simultaneously. He works in a hurry and distracted and more mistakes which are reflected back on his mental state. Improving of the concentration ability leads resistance increasing against external and internal interference phenomena. All yoga techniques present also special concentration exercises. Use the knowledge that an individual restless difficult to maintain body balance, and that the reverse process, i.e. practicing physical balance, it is possible to retroactively affect the mental balance.

The difference between yoga exercises and European physical education can be by Votava (1988) simply characterized as follows : The physical education is primarily focused on the rapid contractions of skeletal muscles and raises during and after the exercise transient increase in sympathetic activity . The immediate consequence of such an exercise is fatigue. On the other embodiment of yoga exercises leads to increased equilibrium of the organism. After exercise, the practitioner feels refreshed and comforted, because a set of exercises inches vegetative state system rather toward parasympathetic predominance.

Increased sympathetic activity and stress hormones affect the activity of most organs in the body. This increases the blood flow (but actually diverts blood from the digestive tract as a limiting his activity), stress stimulates the heart and increases blood pressure, precisely because of security adequate distribution of nutrient circulation. There is a release of energy reserves of the organism, primarily glycogen breakdown, from which it releases glucose into the blood. This whole process is very energy intensive and result in physical condition and mental exhaustion.

As mentioned in the preceding chapters, adequate exercise regimen is clearly defined characteristic features. Adequate exercise regimen is also appropriate to add motion activities that can be operated in nature. Adequate exercise regimen is essential to promote and develop human health, including optimization of circadian rhythms, development of physical education and compensation of fatigue and neuropsychological load.

6.1.1 Release technique

Relaxation is the “cleansing” of the body from the so-called residual muscle and mental tension. In the central nervous system of humans are designed sensations from various parts of the body in proportion to the area and weight. The projection physiological scheme shows that it is useful to pay more attention to other toes and fingers and toes, part of the face (cheeks, chin, tongue), i.e. those parts which for the greater part of the motor and sensory areas of grey matter.

Very short relaxation can be classified like short refreshment during the day or it is inserted between the sport training periods. Short relaxation requires some experience with relaxation at all. The muscles of the better releases present the prior of practicing.

For relaxation is important to the overall atmosphere of the space, light, air quality, etc. Relaxation should operate in a peaceful environment where they feel comfortable with the certainty that nothing disturbs suddenly. It is not necessary to provide for relaxation absolute silence, you need to try what works best for us. For relaxation you can use an appropriate musical accompaniment. We should not, however, become addicted to music, to the extent that without musical accompaniment we would relax successful. In the choice of music is also a need for caution. We should consider what we leave to enter the conscious and subconscious mind.

Relaxation should not be stopped suddenly. Before concluding relaxation deepen your breath. Emphasize and lengthen breath. We realize where we are, in what direction it lies. Then start slowly loosening your toes and hands, then the whole body as we move further hint slowly (even with eyes closed) in sitting position. It is pleasant and beneficial to the conclusion rub hands together to warm up and then attach them to the eyes and let the warmth flow into the eye and the head area. Eyes are opening slowly. Looking first to the hands and then into the room. After relaxation participants have a pleasant, almost festive feeling, which in itself is kept long after exercise. It's about to move to the next business was slow.

Following relaxation, if possible, can be applied in "inner silence" state (Antaur mauna).

Examples for practice in sport mental training:

A. "Relaxation with the imagination of the bright shining point"

The best location for its implementation is lying on the back. First, we will release the entire body. Furthermore we try to imagine the idea of luminous point inside the body - the location is arbitrary. We can imagine spreading of the rays through the body, including its

outlying areas, and their penetration into the area. Along with the idea of beam spreading through the body, we experience relaxation, a feeling of cleanliness – no any "dark corners" into us, everything is drenched, clean. After reaching of deeper relaxation and a sense of purity, we relax of any ideas and experience just a pure relaxation and a feeling of energy.

B. "Relaxation with the imagination of the Sun"

The relaxation procedure is in addition to opportunities for relaxation and a means to vitalize the body. The best position is lying on the back. First, make a short relaxing the entire body. Furthermore we image an idea of the solar disc in yellow, gold or orange and place it in the solar plexus. The idea in us does not create a sense of tension. With every breath we focus in an imaginary solar disc in the abdominal and feel here instead of concentrated energy. With every breath this energy imaginatively is penetrating throughout the body, including its outlying areas. Along with the idea of heat and light radiated body, we experience relaxation, revitalization, healing.

6.1.2 Breathing techniques

Breath is one of the fundamental biorhythms, which can be easily monitored. It connects perfectly physical and psychological areas. Of breath we can regulate own health, but also our emotional expressions and movements (such as fear, anxiety). Life is not possible without breath. A short and shallow breath is unhealthy. Such breath causes restlessness, nervousness and tension in the body. The healthiest is calm, deep and slow breathing, which is characteristic for a balanced and stabile person. It is good to learn to breathe properly and use the full capacity of the lungs. We distinguish three types of breathing:

- Subclavian breathing is the least healthy breathing. It is short and fast. Short and rapid breathing associated with a short life.
- Chest breathing is the most common way of breathing in sport activities. Breathing is slower, but still shallow. The result is tension and nervousness.
- Abdominal Breathing is the most effective of the three methods. It is slow and deep. Deep and slow breathing is an important prerequisite for a healthy and long life.

To have the full benefit of breathing, we should be able to reconcile all of these ways of breathing into a single unit, the full yogic breathing. However, fundamentally breathe through your nose and try to gradually lengthen breath and slow down. Breathing exercises deepen the effect of physical exercise and also works well on cardiac function, blood

circulation, on respiratory system and have a balancing effect on the autonomic nervous system.

Emotional stress has a negative effect on the rhythm and depth of breathing. But it does mean that it can also adversely affect the regulation of breathing through intentional mental state. Controlled breathing can dissolve the consequences of untreated stress, activate attention, moderate pain, can overcome fatigue, facilitating peaceful sleep and calm aggression.

Breathing is a process driven visceral nerves, it is largely unconscious act. However, as breath can control play, is initially unaware of the motion to transfer the conscious activity. Therefore, the mere mechanical breathing exercises, without internal concentration, they are not effective enough. It is crucial, with the attention and experience breathing exercises are performed.

Kubíčková (1996, 1997) reported that only few people today breathe properly and so virtually everyone is necessary re-education of breathing patterns. The condition is full, slow and rhythmic breathing through the nose with a relaxed diaphragm. The author also points out that culture is breathing received little attention. Today, only a few people breathe fully and deeply, slowly and rhythmically, as it should match the structure of the human body and the demands of a healthy lifestyle. Correct breathing perhaps only very small children, adults only sleeping. Wind mechanisms depend largely on the mental equilibrium, are often from childhood so disturbed that they cease to be harmoniously. This causes to very rapid, shallow, or irregular breathing.

All breathing techniques with calming effect with the following recommendations: The breath should be slow, rhythmic, full and deep. The first step to correct the distorted wind patterns is to restore breathing through the nose and then replace the emergency breathing through the mouth.

Mouth breathing in childhood is one of the causes of poor performance of child, affects concentration, thinking and overall behaviour. The consequences of improper breathing may be reflected in the nasal mucosa in the form of adenoids, which then becomes the main obstacle breathing.

Improper breathing is also reflected in the open mouth open, designated posture of shoulders hunched backs, tight chest, shoulder blades protruding, flabby belly and generally clumsy movements. With proper breathing through the nose, the air warms up and read in three transverse interconnecting channels of the nose. Mostly, however, is used only channel bottom, which is the result of misuse shallow breathing. Most usually neglected passage is in

the upper nose. It is precisely this passage of air just below the ridge of the nose is very important. This full breath is achieved mild irritation of the pituitary gland, which affects the activity of the endocrine glands and hence the overall psychophysical balance.

Another consequence of improper breathing pattern is broken rhythm of breathing. With proper breathing exhalation is always longer than the breath that could occur after a momentary pause, required for new muscle tension and thereby to facilitate a deep breath. Rhythm harmonizing breath should reflect the ratio 3-5 times 5-7 times to inhale exhale. Inhalation is always associated with the activation and voltage, exhaling with release and calming.

Breathing is only vegetative function that can directly influence in organism. Significance breath is that it enables intervention in an otherwise uncontrollable clearance activity of internal organs and thus opens the way to their possible regulation. Yoga breathing exercises affects not only the respiratory function, but also affect the psyche, muscle tension and the other internal organs in the chest and abdomen. Central control of breathing has a significant effect on the whole central nervous system.

Exercises for development of breathing control:

A. "Observation of breath"

Lie on your back, arms loosely at your sides, palms up. Legs bent at the knees, feet on the mat. The whole body is relaxed.

Variation A

Put a hand on stomach and observe the movement of the abdominal wall during inhalation and exhalation. Put the palms on the part of the ribs (toes pointing towards the sternum) and observe whether and how far the ribs under palm widening and download again.

Put a hand just below the collarbone and perceive movement in the chest.

Variation B

Quietly and breathe deeply, realize all the feelings associated with the breath. After five to six breaths put arm above in an angle of about forty-five degrees. Arms are lying on the mat. After another five to six breaths move the arm on the mat for another forty-five degrees, until stretched out. Continue to move until throw up. Whenever you change the position of the arms we see how it changes the feelings associated with the breath and how it deepens breathing. With exhalation put arms down. Legs stretch and loosen up.

B. Right nostril breathing ("Sun Breath")

Exercises performed in any sitting position, on matt, on a chair, etc. The important thing is to sit straight, but relaxed. Index and middle finger of his right hand we put together, attach it to the front and close with other finger the left nostril. We provide right nostril breathing - inhale and exhale – maximally 10 - 20 times advanced. This exercise is useful for fatigue removing, has strong stimulating, activating effects.

C. Calming and concentration up breathing (Udjaji technique from yoga)

Exercises performed in a sitting position in a supine or in other positions. It is a deep breath with the concentration of the throat, the airways that narrow down the field of vocal cords, so when you inhale and exhale creates a sound like faint snoring. The mouth is closed, breathing is realising only through the nostrils. This is a very soothing exercise. It prevents diseases of the lower respiratory tract.

D. Activating breathing (Bee breathing)

Exercises performed in any sitting position. We breathe through the nose. On the exhale of the soft palate and pharynx we are creating a sound like buzzing bees. When you exercise your fingers close the ears. We concentrate on the sound that arises in the head. The exercise is good for stimulating, activating to performance, suitable for fatigue, malaise, depression management.

Emotional stress has a negative effect on the rhythm and depth of breathing. Breathing is a process driven visceral nerves, it is largely unconscious act. However, as can breathing play a role of control, initially unaware of the movement can be converted in a conscious activity. Breathing exercises for wellnessdevelopment is based on principle that exhalation should be slightly longer than inhalation.

The basic postulates of so called "Psychology of breathing":

Breathing plays an essential role in all yogic techniques and exercises. Research has shown that most people breathe too shallowly. The body insufficient oxygen reduces the metabolism and consequently greatly harms physical health. Due to the specific relaxation, physical and breathing exercises realize it naturally deeply. Regular exercise will gradually learn to eliminate bad breathing habits and replacing them with a deep relaxed breathing. Retrieve only the physical and mental health; clearly reinforcing the vitality and the body's defences.

- Breathing is controlled centrally and peripherally, affects all cells in the body.
- Breathing is directed to all parts of the body can be any part of the body (relaxation, pain relief, etc.)

- Breathing is continuous. We can recognize it in every moment of life.
- Breathing can influence emotions, memories, thoughts, physical symptoms, self-esteem and self-image and even change the personality.
- Breathing may be available, and limited, conscious and unconscious.
- Breathing is important for maintaining homeostasis - acid-base balance, electrolyte balance and oxygen and glucose).
- Breathing is very important for social contacts in verbal communication.
- Breathing is reflective nature complex, however, connects humans with the environment.

When a condition called "over breathing" may be seriously impaired acid-base balance. It can manifest itself as "unexplained" hypocapnia, but basically it comes to acute or chronic stress, although the cause is sought elsewhere. The consequences can be complicated. In this area offers yoga exercises that help at least some risk factors minimized. Easy, step-ranked physical exercises again stabilize blood circulation, strengthen the vascular system and improve the work of the heart. Special breathing exercises improves the flow of oxygen and release carbon dioxide from the body so the body can gradually again to restore the natural balance between the need and supply of oxygen. Relaxation exercises can help to achieve physical and mental relaxation.

Basic overview of breathing exercises suitable for teaching in mental training. Their mutual ratio, the number of repetition, rhythm, length, traps occurs activating or inhibiting effects. Breathing exercises may be carried out separately, preferably in a quiet, once, if necessary several times a day. Technique of breathing affects not only physical health, but also the emotions and mental harmony. During stress, fear or anger is breath shallow and fast, then released during deep and slow. Conscious and volitional deepening the breath, one can turn in stressful situations acquire serenity. So we can learn to respond for help calm breathing freed from the burdens and problems of everyday life and professional life, and thereby positively affect their mental balance. Breathing exercises can help relieve breathing and healthier people with respiratory diseases such as asthma or chronic bronchitis. Breathing is truly unique in its effect on the body performance and psychic benefits. Highlighted by the psychology breathing and highlights the inseparability of human physiology and behaviour when breathing plays a key role in both homeostasis in biological terms and in terms of self-regulation of behaviour.

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