

## **Related review literature**

Lane et al. (2009) author said Participants who volunteered for the study were 54 male student athletes (age:  $M = 21.7$  years,  $SD = 2.92$ ; soccer  $n = 36$ ; hockey  $n = 15$ , rugby  $n = 3$ ). All participants played collegiate-level sport, with 18 of them also playing for regional teams. Participants reported having on average 8 years ( $SD = 4.2$ ) of competitive experience. Measures- Emotional Intelligence The Emotional Intelligence Scale (EIS; Schutte et al., 1998) was used. The EIS is a 33-item trait measure of emotional intelligence in which items are rated on a 5-point scale anchored by 1 = strongly agree to 5 = strongly disagree. The EIS assesses six factors: Appraisal of own emotions, appraisal of others' emotions, optimism, regulation, social skills and utilization of emotions. Using confirmatory factor analysis, Lane, Thelwell, Gill, and Weston (2007) found support for the six-factor model. Test of Performance Strategies The Test of Performance Strategies (TOPS; Thomas, Murphy, & Hardy, 1999) is a 64-item measure with items rated for frequency of use on a 5-point scale anchored by never (1) to always (5). The TOPS was designed to assess eight psychological strategies used in competition (i.e., activation, automaticity, emotional control, goal-setting, imagery, negative thinking, relaxation, and self-talk,) and eight used in practice (the same strategies except that negative thinking is replaced by attentional control). Procedure Following ethical approval from the institution of the third author, student athletes completed the EIS and TOPS during a lecture. Participants completed informed consent forms and measures were completed individually, away from the gaze of other participants. RESULTS AND DISCUSSION Canonical correlation was used to assess relationships between TOPS competition and EIS subscale scores, and then repeated for psychological skills used in practice. Canonical correlation results indicated a significant relationship between TOPS and EIS subscale scores (Competition use of psychological skills--TOPS-EIS relationship, Canonical  $R = .67$ ,  $p = .0004$ ; Practice use of psychological skills--TOPS-EIS relationship, Canonical  $R = .69$ ,  $p < .001$ ).

Prasad and Singh (2011) study determine to understand human nature and personality of persons psychologists are continuously striving. It is very important for any human enterprise, more so in case of sports and games, where there is not only kaleidoscopic play of emotions but also name, fame, money and much more at stake. A comprehensive understanding of human nature would contribute in great measure for the all round development of the person, sporting

activity and also improving the quality of life. Author said, to understand human nature and personality of persons psychologists are continuously striving. It is very important for any human enterprise, more so in case of sports and games, where there is not only kaleidoscopic play of emotions but also name, fame, money and much more at stake. A comprehensive understanding of human nature would contribute in great measure for the all round development of the person, sporting activity and also improving the quality of life. A psychological analysis case study of the above mentioned subject is conducted through ex-post-facto research method. Based on the objectives of the present study, Sixteen primary personality factor questionnaire (R. B Cattell, 1969), Emotional intelligence scale (Anukool Hyde, Sanjyot Pethe and Upinder Dhar 2007) and Value orientation scale (Chauhan N.S. 1973) were administered on the subject. It is concluded that Sanjay Bangar is good natured, easy going, emotionally expressive, ready to co-operate, attentive to people, softhearted, kindly, adaptable, quick to grasp ideas, a fast learner, intelligent, emotionally mature, stable, realistic about life, unruffled, possessing ego strength, better able to maintain solid group morale, assertive, self assured, independent minded, cheerful, active, talkative, frank, expressive, effervescent and carefree. He is exacting in character, dominated by sense of duty, preserving, responsible, planful, "fill the unforgiving minute, sociable, bold, ready to try new things, spontaneous and abundant in emotional response. His "thick skinnedness" enables them to face wear and tear in dealing with people and grueling emotional situations, without fatigue. He is tough, realistic, "down to earth", independent, responsible but skeptical of subjective, cultural elaborations, free of jealous tendencies, adaptable, cheerful, uncompetitive, concerned about others, a good team worker, anxious to do the right things, attentive to practical matters, polished, experimental and shrewd, unruffled and to have unshakable nerve. He has a mature, unanxious confidence in themselves and their capacity to deal with things. He is experimenting, interested in intellectual matters, he has doubts on fundamental issues, prefers to work and make decisions with other people and like and depend on social approval and admiration He has undisciplined self-conflict and have significant control of his emotions and general behavior. Inclination to be socially aware, careful and he has lot of self respect and high regard for social reputation. He is sedate, relaxed, composed and satisfied person. He has high emotional intelligence and higher value orientation.

Chen (2008) this study to determine the purpose was to examine the different aspects of perfectionism and athletes' burnout. College athletes (N = 320) with mean age of 19.7 yr. (SD = 1.4) completed the Chinese version of the Multiple Perfectionism Scale for Sport and the Eades' Athlete Burnout Inventory. Results indicated that perfectionism could be separated into adaptive and maladaptive perfectionism. Adaptive perfectionism was linked to reduced athletes' burnout while maladaptive perfectionism was associated with athletes' burnout. In addition, significant interaction was found between adaptive perfectionism and maladaptive perfectionism on athletes' burnout. Results suggest that high maladaptive perfectionism and low adaptive perfectionism corresponds to higher scores on athletes' burnout. Perfectionism should not be treated as an all-or-nothing disposition. The extent of athlete burnout can vary with the interaction effects of the two types of perfectionism. In terms of practical implications in intervention work, coaches and sport psychologists should try to reduce athletes' maladaptive perfectionism and increase adaptive perfectionism.

Crombie et al (2009) this study to determine the relationship between team emotional intelligence (Team EI) of six cricket teams and their sports performance in a South African national cricket competition over two consecutive seasons was investigated. Team EI was based on cricketers measured prior to the start of the competition in each season using the MSCEIT ability test and averaged over all games for that season. This was correlated with a team sports performance measure, the final log points standing for the team at the end of a competition. The results showed that Team EI was positively associated with the sports performance of the cricket teams. Further, Team EI was shown to be a significant predictor of sports performance, with 61% of the variation in the log points explained. This finding suggests that EI may contribute to the success of teams participating in complex sports like cricket.

Crombie (2011) investigate the effect of emotional intelligence (EI) training and development on the EI profile scores of individual cricketers. 24 players attending the South African National Cricket Academy were randomised to an intervention group (EI training and development intervention program) or control group (no intervention). The experimental design was executed in 2007 and 2008 with different cohorts of players. The EI of the players was measured pre and post intervention using the Mayer, Salovey & Caruso Emotional Intelligence Test (MSCEIT). In 2007 the baseline Total EI score for the intervention group was 84.9 and the

post intervention Total EI score was 96.6, giving a relative increase of 13.7%. By comparison, the baseline Total EI score for the control group was 81.8 and post intervention the Total EI score was 83.4, giving a relative increase of 2%. In 2008 the baseline Total EI score for the intervention group was 89.4 and the post intervention Total EI score was 101.7, giving a relative increase of 13.8%. By comparison, the baseline Total EI score for the control group was 87.4 and the post intervention Total EI score was 84.8, a relative decrease of 3.1%. The estimated intervention effect for the percentage change in Total EI score over both years is 14.5% (95% CI: 11.9 to 17.2%) and is significant, indicating EI training and development may contribute to increasing the EI profile of individual cricketers. Key words: Cricket, Emotions, Feelings, Non-Cognitive Intelligence Theory

Ford (2000) this study is based on Williams and Andersen's model of stress and athletic injury, six psychosocial variables were assessed as possible moderators of the relationship between life stress and injury among 121 athletes (65 males, 56 females) competing in a variety of sports at state, national or international level. No significant effects of the sex of the participants were evident. Correlational analyses revealed moderator effects of several variables. Specifically, dispositional optimism and hardiness were related to decreased injury time-loss in athletes when positive life change increased, and global self-esteem was associated with decreased injury time-loss when both negative life change and total life change increased. The results indicate that athletes with more optimism, hardiness or global self-esteem may cope more effectively with life change stress, resulting in reduced injury vulnerability and recovery rates.

Giffin (2012) this study to determine the second to fourth digit ratio (2D:4D) is a sexually dimorphic trait with lower finger ratios considered more masculine. These digit ratios are believed to reflect the prenatal hormonal environment with higher exposure to androgens in utero leading to more masculine digit ratios. The 2D:4D ratio has been negatively correlated with many factors, including aggression, physical fitness, and athleticism. We compared 2D:4D finger ratios of (1) male and female varsity athletes ( $n = 99$ ) versus male and female student non-athletes ( $n = 122$ ), and (2) males ( $n = 104$ ) versus females ( $n = 117$ ). Our results confirmed that both male (mean  $\pm$  s(x) :  $0.97 \pm 0.004$ ) and female ( $0.98 \pm 0.005$ ) varsity athletes had significantly lower ratios than their non-varsity peers (males:  $0.99 \pm 0.004$ ; females:  $1.00 \pm 0.006$ ), and that male athletes had significantly lower 2D:4D ratios than female athletes. Overall,

males had significantly lower 2D:4D ratios than females ( $0.98 \pm 0.003$  vs.  $0.99 \pm 0.004$ ). A smaller 2D:4D ratio appears to be consistent with participation in varsity sports among both males and females.

Gucciardi and Gordon (2009) conducted this study to determine the purpose of this research project was to develop a psychometrically sound measure of mental toughness in cricket, using a multi-method research design. Two qualitative studies in which current and former cricketers' ( $n = 16$ ) perceptions of the key components of mental toughness in cricket and the suitability of an item pool to target those key components ( $n = 9$ ) were assessed. We then conducted two quantitative studies to examine both the within- and between-network properties of the Cricket Mental Toughness Inventory (CMTI) using confirmatory factor analysis and correlations. Support for the existence of a five-factor, 15-item model was revealed with three independent samples of cricketers; two contained cricketers from several different countries ( $n = 285$  and  $285$ ), whereas one contained Australian cricketers only ( $n = 433$ ). Each of the five subscales (affective intelligence, intentional control, resilience, self-belief, and desire to achieve) were positively correlated with dispositional flow, hardiness, and resilience and negatively correlated with athlete burnout. Although requiring replication and extension, the results of the present study provide preliminary support for the factor structure, internal reliability, and construct validity of the CMTI.

Gustafsson et al. (2010) Researchers have postulated that hope may be an important factor associated with burnout. Consistent with hope theory contentions, low-hope individuals may be susceptible to burnout because they are prone to experience goal blockage, frustration, and negative affect, all of which likely increase the risk of burnout. We examined the relationship between hope and athlete burnout among 178 competitive athletes (63 females and 115 males) aged 15-20 years. Hope was significantly and negatively correlated with all three burnout subscales: emotional/physical exhaustion, a reduced sense of accomplishment, and sport devaluation. Moreover, results of a multivariate analysis of variance showed that low-hope athletes scored significantly higher than medium- and high-hope athletes on all three burnout dimensions. Finally, results revealed that agency thinking was a significant predictor of all burnout dimensions. Frustration over unmet goals and a perceived lack of agency, a

characteristic of low-hope athletes, might pose a risk factor in athlete burnout, whereas being able to maintain hope appears to be associated with health and well-being.

Bawa (2010) study determine the Coaching is a challenging profession that requires the coaches to reconcile the often contrary goals of developing winning athletic programme and providing positive personal and academic experiences for their athletes. In at least all the games and sports, about 50% is the role of a coach to prepare a team/athlete to give high performance in national and international competitions. The pressure to win, coming up to the expectation of the people and ever present interpersonal demands can lead to stress and render coaches susceptible to burnout. Persons with hard personality can easily and constructively cope with acute stress and burnout. Personality hardiness of an individual has relationships with his burnout and competitive trait anxiety. The coaches who are higher in personality hardiness are less susceptible to burnout. Personality hardiness is defined as multidimensional personality construct comprising three characteristics, control, commitment and challenge. Burnout refers to the loss of enthusiasm, excitement and essence of mission in one's work. It also causes feelings of helplessness, hopelessness, depression, meaninglessness, negative self concept and attitude towards work, life and other peoples. Burnout leads to emotional stress and physiological problems. Burnout is thought to be a consequence of prolonged exposure to stress and perception of an imbalance between situational demands and the resource available to meet these demands. Sport competition anxiety is another dimension related to sport performance hardiness and burnout among athletes and coaches is quite a new topic in research on which researchers have started working in the last two decades. The investigator who has been national level cyclist, swimmer observed and felt lack of motivation, enthusiasm interest and dedication among coaches. The study was conducted with a purpose to determine the status of Indian athletics and wrestling coaches pertaining to their personality hardiness, burnout and sport competition anxiety. The subjects of the present study were 30 athletes and 30 wrestlers. The short version of the hardiness scale developed by Kobasa and Maddi (1982) was used to assess the hardiness of the subjects. The scale contains 36 items in all that assess the attitude of the subject on the three personality dimensions that is, commitment, control and challenge, Competitive trait anxiety was measured by administrating Sport Competition Anxiety Test by Rainer Marten (1986). Maslach burnout inventory (Maslach and Jackson 1986) was administered to assess the burnout status of

the athletics and wrestling coaches. The inventory assesses the three aspects of burnout syndrome that is, emotional exhaustion, depersonalisation and lack of personal accomplishment. Coefficient of correlations were computed among various variables with regard to athletes and wrestlers, mean, SDs and 't' values were computed in all variables between athletes and wrestlers. Significant correlation between emotional exhaustion and depersonalisation, between emotional exhaustion and competitive anxiety, between commitment and control, commitment and challenge, commitment and total scores of hardiness, control and total scores of hardiness, challenge and total scores of hardiness in case of athletic coaches and wrestling coaches were observed. Athletic coaches were found to be significantly younger, significantly greater in control disposition of personality hardiness and having significantly lesser amount of competition anxiety when compared with the wrestling coaches.

Hill et al (2008) this study to determine the [Perfectionism and burnout in junior elite soccer players: The mediating influence of unconditional self-acceptance](#) Elsevier , Objectives: It has been argued that elite junior athletes may be especially vulnerable to the development of burnout [Coakley, D. (1992). Burnout among adolescent athletes: A personal failure or social problem. *Sociology*, 9, 271-285; Feigley, D. A. (1984). Psychological burnout in high-level athletes. *The Physician and Sports Medicine*, 12, 108-119; Raedeke, T. D. (1997). Is athlete burnout more than just stress? A sport commitment perspective. *Journal of Sport and Exercise Psychology*, 19, 396-418]. Few studies to date have examined the psychological mechanisms that may underpin this vulnerability. One exception was a study by Gould, Tuffrey, Udry, and Loehr [(1996). Burnout in competitive junior tennis players: I. A quantitative psychological assessment. *The Sport Psychologist*, 10, 332-340], which found that a form of perfectionism reflecting a preoccupation with avoiding mistakes differentiated between burnout and non-burnout tennis players. The first purpose of the present investigation was to extend this research and examine the influence of self-oriented and socially prescribed perfectionism on burnout in elite junior soccer players. A second purpose was to examine whether the association between perfectionism and burnout was mediated by unconditional self-acceptance. Design: A correlational design was employed. Method: One hundred and fifty-one soccer players (M age=14.4 years, SD=2.4 years) completed an inventory that included Flett and Hewitt's (1991) Multidimensional Perfectionism Scale, Chamberlain and Haaga's (2003) Unconditional Self-acceptance Scale, and Raedeke and Smith's [(2001). Development and preliminary validation of

an athlete burnout measure. *Journal of Sport and Exercise Psychology*, 23, 281-306] Athlete Burnout Questionnaire (ABQ). Results: Structural equation modeling indicated that unconditional self-acceptance partially mediated the relationship between the two dimensions of perfectionism and athlete burnout. Contrary to the hypotheses, self-oriented perfectionism demonstrated both a positive indirect association with symptoms of burnout, as well as a direct inverse relationship. Conclusion: The findings provide support for the contention that a contingent sense of self-worth is central to both socially prescribed and self-oriented perfectionism [Flett, Besser, Davis, & Hewitt (2003). Dimensions of perfectionism, unconditional self-acceptance, and depression. *Journal of Rational-Emotive and Cognitive-Behavior Therapy*, 21, 119-138; Flett, Hewitt, Oliver, & MacDonald (2002). Perfectionism in children and their parents: A developmental analysis. In G. L. Flett & P. Hewitt (Eds.), *Perfectionism: Theory, research and treatment* (pp. 89-132). Washington, DC: American Psychological Association], and that this association may underpin maladaptive achievement striving and increase vulnerability to athlete burnout. © 2007 Elsevier Ltd. All rights reserved.

Sunar et al. (2009) The main purpose of this study was to investigate the relationship between coaches' burnout, coaches' decision making style and levels of burnout experienced by school soccer players. 15 male coaches (n=15) and 100 male soccer players (n=100) from 5 different schools in Klang participated in this study. The participants completed the questionnaire for Leadership Scale for Sports (LSS; Chelladurai & Saleh, 1980), Athlete Burnout Questionnaire (ABQ; Raedeke & Smith, 2001), and Maslach Burnout Inventory- Educators Survey (Maslach, Jackson, & Leiter, 1996). Data were analyzed using SPSS Version 17 descriptive statistics and Pearson product-moment correlation coefficients. The results of this study suggest that there are some relationship between school coaches' leadership behaviors and burnout. It was discovered that democratic decision-making style of school coaches to be significant predictors of the coaches' leadership. Significant relationships were found between perceived school coaching behaviors and school male soccer players' outcomes. School male soccer players who perceived their school coaches as democratic exhibit greater support from school coaches than autocratic decision making style and are less burned out. The school coaches on the other hand perceived autocratic behavior on emotional exhaustion subscale to develop burnout. Furthermore aforementioned research has paved the way for future studies to examine



and identify the relationship between the perception of decision-making behaviors utilized by coaches, coaches and athletes burnout. Future research should study if the relationships among perceived burnout, participation in coaching activities, and burnout of school coaches and school male soccer players are impacted by the number of individuals on the coaching staff, the size of the team, or the gender of the coaches and players. The current study has provided a good basis for identifying variables that may be associated with the coaches and players, but further research needs to be conducted with coaches and players in order to better understand the development of burnout in these populations.

Cremades and Matthew (2012) the purpose of this study was to determine burnout differences related to gender and sport type (i.e., individual versus team), and to determine the relationship between anxiety direction, anxiety intensity, and burnout while controlling for gender and sport type. Collegiate athletes (N=130) completed the Athlete Burnout Questionnaire as well as a trait version of the Competitive State Anxiety Inventory-2D. A 2-way MANCOVA indicated a significant 2-way interaction for gender by sport type on the Reduced Sense of Accomplishment subscale. In addition, results indicated significant main effect differences for gender and sport type. A hierarchical regression analysis was conducted to predict burnout from anxiety intensity and direction. Self-confidence was the only directional scale that predicted Reduced Sense of Accomplishment, Emotional/Physical Exhaustion, and Devaluation. The intensity of cognitive anxiety and self-confidence were associated with greater levels of Reduced Sense of Accomplishment. Conclusions and applied implications are drawn based on the results mentioned above.

Kellmann (2010) the purpose of this study was to determine In sports, the importance of optimizing the recovery-stress state is critical. Effective recovery from intense training loads often faced by elite athletes can often determine sporting success or failure. In recent decades, athletes, coaches, and sport scientists have been keen to find creative, new methods for improving the quality and quantity of training for athletes. These efforts have consistently faced barriers, including overtraining, fatigue, injury, illness, and burnout. Physiological and psychological limits dictate a need for research that addresses the avoidance of overtraining, maximizes recovery, and successfully negotiates the fine line between high and excessive training loads. Monitoring instruments like the Recovery-Stress Questionnaire for Athletes can assist with this research by providing a tool to assess their perceived state of recovery. This

article will highlight the importance of recovery for elite athletes and provide an overview of monitoring instruments.

Lonsadle and Hogde (2011) study determine Using self-determination theory as the theoretical framework; we conducted a longitudinal investigation of the relationships between motivation and athlete burnout. We tested four hypotheses: H0: low self-determination (SD) does not precede burnout, and burnout does not precede low SD; H1: low SD precedes burnout; H2: burnout precedes low SD; and H3: burnout and motivation have a reciprocal relationship. **METHODS:** We used a two-wave design, with the follow-up assessment 4 months after baseline. Elite New Zealand athletes (n=119, mean age=24.74 yr (standard deviation=8.54 yr); 57.14% of whom were females) completed the Athlete Burnout Questionnaire and the Behavioral Regulation in Sport Questionnaire. Structural equation modeling of cross-lagged panel models was used to test the hypotheses. **RESULTS:** The relationship between motivation and burnout varied depending on the type of motivation assessed. Analyses related to overall levels of self-determined motivation, amotivation, and controlled forms of extrinsic motivation provided support for H1: low SD precedes burnout. When compared with external regulation, introjected regulation seemed to be a clearer antecedent of athlete burnout. Analyses related to the self-determined forms of extrinsic motivation provided support for H2: burnout precedes low SD. The only analyses in which the null hypothesis could not be rejected were those relating to intrinsic motivation. Finally, there was little support for a reciprocal effects model. **CONCLUSIONS:** Low levels of self-determination may lead to increases in athlete burnout, whereas athlete burnout may precede decrements in self-determined extrinsic motivation. Particular efforts could be made to help support the basic psychological needs of athletes with controlled forms of motivation, thereby leading to an internalization of motivation and decreased risk of burnout.

Melinda et al (2008) the purpose of this study was to determine Gender may be a mediating factor for relationship effectiveness between athletes and coaches (Lirgg, Dibrezzo, & Smith, 1994; Medwechuk & Crossman, 1994). Ironically, with the increase in participation of female athletes and sports that has occurred since Title IX, there has been a decrease in the number of female coaches over the past 30 years (Felder & Wishnietsky, 1990; Freeman, 2001; Pastore, 1992). The purpose of this study was to explore twelve female athletes' perceptions and

experiences of being coached by women and men. Semi-structured interviews revealed four major themes: discipline and structure, personal relationships, passivity and aggressiveness, and coach preference. Specifically, eight of the participants stated a preference for male coaches, yet differences were found when comparing various coaching qualities. Results are discussed in regards to overall sport experiences.

Nicholas et al (2004) studied (N = 33, M age = 11.9 years, SD = 1.5 years). The participants possessed an average of 2.97 years playing experience (SD = 1.33). All players experienced at least one competitive game and one practice per week during the cricket season (although participants could play up to three games in a given week). All participants were Caucasian, drawn from a rural community, and mainly working class. Procedure The club secretary and head coach of the cricket club in question were contacted with the research proposal and they gave their permission for the research to proceed. The lead researcher had obtained a Criminal Record Bureau Disclosure and was checked against the Child Sex Offender's 'List 99' in the UK. Prior to the study parents were provided with an information letter and consent form and given opportunities to ask the lead researcher questions about the study. Written informed consent was provided by each team coach, one or both parents, and the children themselves before the research commenced. Participants were withdrawn from their regular training session by age group to meet with the researcher in a private room in the team clubhouse. One team coach sat outside the meeting room (with the door left open) during each session. Each group were then given the same set of instructions by the same researcher in order to complete the concept map exercise. Data Collection, Concept maps. Concept maps (Novak & Gowan, 1984) were used as an open-ended questionnaire collection technique that involves a seed idea, from which respondents generate ideas that represent their own experiences (See Figure 1 for an example of a completed pair of concept maps). This technique has been used in a previous investigation in youth sport and it appears to be developmentally appropriate (Stean & Holt, 2000). The first concept map used in the present study contained the seed statement "things I worried about when playing cricket recently." Participants were instructed by the researcher to "think about some of the things you have worried about when playing cricket over the past two weeks. Make sure you remember something that actually happened. Think about who you were playing against, when, and where the game took place." Participants were then given a second

map that contained the seed statement "what I did to deal with each of these worries." Again, participants were instructed to recall their actual experiences and describe how they "dealt with each of these worries." In this way, participants linked their subsequent coping responses to the previously identified performance worries.

Farzalipour et al. (2012) the purpose of this study was to determine Nowadays, attracting, organizing and keeping volunteers are the important goals in sport management and human resources scope. The purpose of this study was surveying motivation, satisfaction and burnout among sporting volunteers in Iran. The population of this research consisted of 260 sport volunteers in Fars province sport committees. 74 individuals were selected as the sample of this study by cluster sampling. In this survey, we used four questionnaires (burnout questionnaire was developed and consisted of 21 items, motivation of volunteers questionnaire was developed by (24) and consisted of 27 items, satisfaction questionnaire of Omoto and demographic Questionnaire. The reliability was measured by alpha Cronbach ( $r=0.81, 0.87, 0.75$ ) at  $P=0.05$ . The data were analyzed by the descriptive and deductive method that was tested by MANOVA and correlation tests. The findings showed that family-support factor was scored as highest and appreciation factor as lowest among volunteers. There was a meaningful relation between empowerment and family-support, perceived reward and appreciation. Also, satisfaction and burnout were higher in females than males. There was a meaningful relation between empowerment, lack of appreciation and perceived rewards to satisfaction. The results also showed a meaningful relation between religion, empowerment, perceived rewards and lack of appreciation in sport volunteer's burnout. Key words: volunteers, motivational factors, satisfaction, burnout.

Sysoeva et al. (2010) study determine the association of 5-HTTLPR gene polymorphism and aggression was studied in control group of males and females and in the athletes. The sport activities were found to decrease the aggression: the effect persist for the synchronized swimmers and for the wrestlers. Control group of males were characterized by higher aggression scores (Assault, Negativism, Suspicion and Verbal aggression scales of Buss-Durkee Hostility Inventory) compared to females. For all female-subjects irrespective of sport activities and age, the association between the variants of 5-HTTLPR gene and the Indirect Aggression and Negativism scores were found: carries of SS genotype has higher scores on Indirect Aggression

and lower scores on Negativism. For the males the association was different: The averaged Hostility scores were higher for the carriers of LL-genotype. The brain processes, presumably underlying the association between aggression and 5-HTLPR gene, were studied in male control group. The increased MMN component of ERP, which responsible for the automatic change detection, and decreased P3a component, related to involuntary attention and cognitive control were found in LL-carriers. It might be considered as a sign that SS-carriers process the information with more cognitive resources. Probably they perceive the stimulus as more complicated, which lead to activation the additional resources of frontal cortex. It might be also suggested that the carries of SS-genotype tend to deeper processing of the incoming information. Probably, it is this more "serious" analysis of external information, which underlies the rejection of impulsive aggressive actions.

Winsley and Matos (2011) studied determine in comparison to adults, our knowledge of the overtraining syndrome in elite young athletes is lacking. The evidence indicates an incidence rate of ~20-30%, with a relatively higher occurrence seen in individual sport athletes, females and those competing at the highest representative levels. The most commonly reported symptoms are similar to those observed in over trained adult athletes: increased perception of effort during exercise, frequent upper respiratory tract infections, muscle soreness, sleep disturbances, loss of appetite, mood disturbances, shortness of temper, decreased interest in training and competition, decreased self-confidence, inability to concentrate. The association between training load and overtraining is unclear, and underlines the importance of taking a holistic approach when trying to treat or prevent overtraining in the young athlete so that both training and non-training stressors are considered. Of particular relevance to the issue of overtraining in the elite young athlete are the development of a unidimensional identity, the lack of autonomy, disempowerment, perfectionist traits, conditional love, and unrealistic expectations. Overtraining syndrome is a complex phenomenon with unique and multiple antecedents for each individual; therefore, an open-minded and comprehensive perspective is needed to successfully treat/prevent this in the young athlete.

Zitzmann ( 2006) studied to determine gender differences in spatial recognition, and age-related declines in cognition and mood, point towards testosterone as an important modulator of cerebral functions. Testosterone appears to activate a distributed cortical network, the ventral

processing stream, during spatial cognition tasks, and addition of testosterone improves spatial cognition in younger and older hypogonadal men. In addition, reduced testosterone is associated with depressive disorders. The relationship between depression and testosterone appears to partly depend upon the androgen receptor genotype of the patient, and in appropriate patients with low testosterone levels, testosterone substitution can increase positive mood and decrease negative mood. The much publicized link between testosterone and aggression is probably only of importance in athletes who supplement their testosterone levels to excessively high levels, whereas in hypogonadal men, testosterone supplementation only enhances the positive aspects of aggression such as vigour and energy. Current data suggest that testosterone supplementation in hypogonadal men of all ages will enhance many aspects of mood and cognition.