When table above is examined in terms of the relation between injury types of female and male athletes in the research and how many times they are out of training due to injury, no statistically significant difference has been found (p>0.05)

References

BEİS, K., TSAKLİS, P., PİETER, W., ABATZİDES, G., 2001, *Taekwondo competition injuries in Greek young and adult athletes.* Eur J Sports Traumolrel res, 23(3):130-136.

BİRRER, R.B., 1996, *Trauma epidemiology in the martial arts. The results of an 18-year international survey.* Am J Sports Med; 24(suppl 6):S72–9.

BURKS, J.B., SATTERFİELD, K., 1998, *Foot and ankle injuries among martial artists. Results of a survey.* J Am Podiatr Med Assoc;88:268–78.

BOYKIN, C., 2002, *Muay Thai Kickboxing - The Ultimate Guide to Conditioning, Training and Fighting*, Paladin Press, 320-7.

BUSCHBACHER, R.M., SHAY, T., 1999, *Martial arts.* Physical Medicine and Rehabilitative Clinics of North America, 10(1):35-47.

FEEHAN, M., WALLER, A.E., 1995, *Precompetition injury and subsequent tournament performance in full-contact taekwondo*, Br. J. Sports Med., Vol. 29, No. 4, pp. 258-262.

GARTLAND, S., MALİK, M.H.A., LOVELL, M.E., 2001, *Injury and injury rates in Muay Thai kick boxing,* The British Journal of Sports Medicine*, 35*:308-313.

JAMES, G., PİETER, W., 2003, *Injury rates in adult elite judoka*. Biol Sport, 20(1):25-32.

KAZEMİ, M., PİETER, W., 2004, *Injuries at a Canadian National Taekwondo Championships: a prospective study,* BMC Musculoskeletal Disorders, 5:22.

KAZEMİ, M., SHEARER, H., CHOUNG, Y.S., 2005, *Pre-competition habits and injuries in Taekwondo Athletes,* BMC Musculoskeletal Disorders, 6:26.

LLOYD, T.W., TYLER, M.P.H., ROBERTS, A.H.N., 1998, *Spontaneous rupture of extensor pollicis longus tendon in a kick boxer.* Br J Sports Med; 32:178–9.

MERRİLEE, N., ZETARUK, MARİONA, A., VİOLAN, DAVİD ZURAKOWSKİ, LYLE, J., MİCHELİ, 2000, *Karate İnjuries in children and adolescents,* Accident Analysis and Prevention. 32, 421-425.

OLER, M., TOMSON, W., PEPE, H., 1991, *Morbidity and mortality in the martial arts:* a warning. J Trauma; 31:251–3.

SCHWARTZ, M.L., HUDSON, A.R., FERNİE, G.R., 1986, *Biomechanical study of full-contact karate contrasted with boxing.* J Neurosurg;64:248.

SUHONGSA, C., 1999, *Muay Thai.* Manchester: IAMTF.

MARTIAL ARTISTS VERSUS TEAM SPORTSMEN: AGGRESSIVENESS AND RECEIVED SOCIAL SUPPORT

Tekin Ali[1], Phd, Aykora Emrah[2], MSc, Akçakoyun Fahri[1], Phd, Parlak Necmettin[3], Tekin Gülcan[4], MSc.
[1] School of Physical Education and Sport, Muğla University, TURKEY
[2] Doctoral Student, National Sports Academy, Sofia, BULGARIA
[3] School of Physical Education and Sport, Adnan Menderes University, TURKEY
[4] Physical Education and Sport Experts, Muğla, TURKEY
Email: altekin@mu.edu.tr / 12.02.2010 / 26.02.2010

Abstract

Purpose. The aim of this study to determine and compare the received social support and aggressiveness level of martial artists and team sportsmen.

Method. The study was conducted by the athletes in Muğla Province of Turkiye. The researchers gave information about the aim and scope of the study to the athletes, and then they completed the scales voluntarily. There were 180 athletes in both martial arts in team sports group. The instruments of the study were Kiper's Aggressiveness Inventory and Multidimensional Scale of Perceived Social Support.

Results. The scores of aggressiveness for martial artists and team sportsmen were x_m = 46,51±7,85; x_m= 47,74±7,26 and x_f =46,64±7,42; x_f =47,69±7,46 respectively. There is not significant differences between male and female martial artists and team sportsmen (p>0.05) in aggressiveness. Received social support scores for martial artists and team sportsmen were: x_m= 35,19±14,07, x_m = 60,20±12,31 and x_f = 66,86±6,25, x_f = 48,07±8,13 respectively. Thus, the scores of male team sportsmen were significantly higher than martial artists (p<0,001). On contrary this, the social support scores of martial artists for women are higher than team sportsmen significantly (p<0,001). In total, aggressiveness and received social support scores of martial artists (x_{ma}= 46,58±7,62; x_{ma}= 51,02±19,23) and team sportsmen (x_{ts}= 47,72±7,34; x_{ts}= 54,13±12,05) showed no significant differences.

Conclusions. Aggressiveness is not related to sports branches. Future research on this subject is a need.

Keywords. martial artists, team sportsmen, social support, aggressiveness.

Purpose

An important question in the sociology of sport is how and why some people become involved in a a type of sport while others do not. Early studies (J.W. Loy, B.D. McPherson, G.S. Kenyon, 1978; B.D. McPherson, 1971) indicated that most people who become involved in sport have been influenced by others who serve as role models or in some way reinforce the athletic role behavior. They point to the family as being generally responsible for early sport socialization. Parents who have positive evaluations of sports tend to produce children who view sports positively. Participation and/or interest in sport by parents is often one of the antecedents of sport participation by children. Social support refers to "an exchange of resources between at least two individuals perceived by the provider or the recipient to be intended to enhance the well-being of the recipient".

Behaviors that fulfill these support functions include expressing emotional support (e.g., affection), appraisal support (e.g., performance feedback), giving information (e.g., advice and role clarification), offering emotionally sustaining behaviors (e.g., empathy), and listening to the concerns and feelings of the other person (T.L. Albrecht, M.B. Adelman, 1984; C. Conrad, 1985; B.H. Gottlieb, D. Todd, 1979; J. House, 1981). According to I.G. Sarason, B.R. Sarason and G.R. Pierce (l990), social support is effective when the type of social support given matches the type of support needed. This functional or multidimensional approach has received merit elsewhere (T.L. Albrecht, M.B. Adelman, 1984; C.J. Hardy, J.M. Richman, L.B. Rosenfeld, 1991; A.M. Pines, E. Aronson, D. Kafry, 1981; L.B. Rosenfeld, J.M. Richman, C.J. Hardy, 1989). One example of the multidimensional social support perspective is a model of social support from A.M. Pines et al. (1981), which identifies six types of social support:

1. Listening—others who actively listen without giving advice or making judgments, with whom the joys of success as well as the frustrations of failure may be shared. Listening support is the perception that others genuinely care about what you have to say and listen nonjudgmentally.
2. Shared social reality—others with similar priorities, values, and perspectives who can serve as reality "touchstones," through whom perceptions of the social context can be verified. Shared social reality support is the belief that others share your understanding of the world. This knowledge validates the recipient's feelings.
3. Emotional support—others who support an individual during an emotionally difficult time without necessarily taking her or his side. Emotional support is based on the idea that others care about you and are on your side.
4. Emotional challenge—others who can challenge an individual to do her or his best to overcome obstacles and fulfill goals. Emotional challenge is the perception that others care about you while also facilitating personal growth or development.
5. Technical appreciation—others who acknowledge when a good piece of work or performance is accomplished. Technical appreciation is the perception that others appreciate and support your efforts and accomplishments in a specific setting such as sport.
6. Technical challenge—others who can challenge, stretch, and encourage the athlete to achieve more, to be more creative and excited about her or his work. Technical challenge, similar to emotional challenge, can be described as support that encourages the individual to do better or achieve more in a specific setting such as sport.

The last two types of support are thought to be provided by individuals who have knowledge or expertise in the relevant area. In the sport setting, coaches and teammates may be prominent sources of these types of social support. The first four types of support can be provided effectively by most people.

Research by A.M. Pines et al. (1981); provide evidence for operationalizing social support into these six distinct types. In the last decade there has been a sharp increase in research in many professional fields on the effects of social support, for example psychology, education, social work, and communication.

A number of authors have noted that aggression and violence are serious problems in sport (e.g. D.E. Conroy, J.M. Silva, R.R. Newcomer, B.W. Walker, M.S. Johnson, 2001; D.E. Stephens, 1998), particularly contact sports such as ice hockey (G.L. Worrell, D.V. Harris, 1986). Despite growing concern and much debate, the study of aggression in sport has suffered from problems associated with formulating an acceptable definition of aggression (J.H. Kerr, 1999, 2002) and the development of sound measurement techniques (B.F. Husman, J.M. Silva, 1984; J.P. Maxwell, 2004; D.E. Stephens, 1998). A more practical course for psychometric research may be to focus on the measurement of the psychological antecedents of aggression (J.P. Maxwell, 2004). Anger and aggressiveness have been identified as strong predictors of aggressive behavior (L.B. Berkowitz, 1983, 1989, 1993); therefore, it would seem prudent to be capable of identifying athletes who are particularly prone to angry or aggressive feelings. The research presented here attempts to develop a self-report measure of aggressiveness and anger with the aim of furthering our understanding of the antecedents of aggression in competitive sport.

R.A. Baron and D.R. Richardson (1994) define human aggression as "any form of behavior directed toward the goal of harming or injuring another living being who is motivated to avoid such treatment (p. 7)'. The use of this definition in sport is problematic because behaviours that are integral to competitive success would be described as harmful or injurious (e.g. rendering an opponent unconscious in boxing). An alternative definition was adopted by J.P. Maxwell (2004) who operationally defined aggression in sport as

" any [intentional] behaviour, not recognised as legal within the official rules of conduct, directed towards an opponent, official, team-mate or spectator who is motivated to avoid such behaviour' (p. 280). This definition concurs with the International Society of Sport Psychology (ISSP) position stand and acknowledges the role of legitimacy (G. Tenenbaum, E. Stewart, R.N. Singer, & J. Duda, 1997).

The ISSP's definition has come under severe criticism in recent years that would seem to undermine its plausibility see J.H. Kerr (1999) for a rejoinder of the ISSP position, G. Tenenbaum, D..N. Sacks, J.W. Miller, A.S. Golden and N. Doolin, (2000) for a response to Kerr's rejoinder, and J.H. Kerr (2002) for a revisit of the ISSP position stand). The argument put forward by Kerr (and others) states that aggression is an accepted part of many sports (e.g. American football and boxing) and should be acknowledged as such. Merely redefining these acts as non-aggressive simply because they are accepted (or sanctioned in Kerr's terms) does nothing to change their nature and the harmful intentions of the perpetrator. This observation poses significant problems for the measurement of aggression by indirect means; it implies that only the athlete knows whether harm was intentional (G.W. Russell, 1993; M.D. Smith, 1983).

The problem with measuring aggression in sport has been the lack of a sport specific measure of anger arising during competition; though, Terry and colleagues (e.g. P.C. Terry, A.M. Lane, H.J. Lane, & L. Keohane, 1999) have popularised use of the Profile of Mood States (D.M. McNair, M. Lorr, L.F. Droppelman, 1971, 1992) as a state measure of anger. Anger is defined as the subjective evaluation that increased physiological arousal is a result of threat to one's physical or psychological wellbeing (J.R. Averill, 1983). Anger has been linked to aggression by several theorists (e.g. L. Berkowitz, 1993), but has received sparse attention regarding its role in sporting aggression.

Despite problems with measuring aggression, it is still desirable, both theoretically and practically, to develop an efficient method of identifying individuals who are more inclined to use aggression in sport (sanctioned or unsanctioned). To overcome problems with measuring aggression directly in a broad range of sports, it may be more prudent to isolate factors that are thought to precede aggression. L. Berkowitz (1993) identified anger and aggressiveness as important antecedents of aggression. Aggressiveness is defined as the disposition to become aggressive or acceptance of and willingness to use aggression. Acceptance of aggression has previously been linked to increased athlete aggression (e.g. D.E. Conroy et al., 2001). Both anger and aggressiveness are liable to be relatively stable personality characteristics (i.e. trait like) and not sport specific, although individuals with high levels of aggressiveness may be attracted to combat type sports. High levels of both anger and aggressiveness are likely associated with greater propensity for aggression (D.P. Farrington, 1978).

In this study we aimed to determine and compare the received social support and aggressiveness level of martial artists and team sportsmen.

Method. The study was conducted by the athletes in Muğla Province of Turkiye. The researchers gave information about the aim and scope of the study to the athletes, and then they completed the scales voluntarily. There were 180 athletes in martial arts in team sports group, 90 of whom were female in both groups and thye total was 360. The age of the martial artists and teamsportsmen are between 15-30 and 16-28 respectively.

Table 1 The breakdown of the martial artists

	Female	Male	Total
Handball	30	30	60
Basketball	30	30	60
Volleyball	30	30	60
Total	90	90	180

Table 2 The breakdown of the team-sportsmen

	Female	Male	Total
Kick-boxer	30	30	60
Judo	30	30	60
Tae-kwon do	30	30	60
Total	90	90	180

The instruments of the study were Kiper's Aggressiveness Inventory (KAI) and Multidimensional Scale of Perceived Social Support (MSPSS).

Kiper's Aggressiveness Inventory (KAI). Validity and reliability of the inventory was done by İ. Kiper (1984). It has 30 items. Each item has 7 choices from "I agree it completely" to " I dont agree it all. The scores for each item differs from +3 to -3. The highest total score can be 183 while the lowest is 3.

Multidimensional Scale of Perceived Social Support-MSPSS). G. Zimmet et al., (1988) developed the scale and D. Eker, H. Arkar (1995) conducted the reliability and validity of scale for Turkish population. The scale has 12 items with 7 alternatives differ from "completely no" to "completely yes". The total score can be between 12 and 84. The data collected was analyzed by independent samples t-test.

Results The scores of aggressiveness for martial artists and team sportsmen were x_{male} = 46,51±7,85; x_{male}= 47,74±7,26 and x_{female} =46,64±7,42; x_{female} =47,69±7,46 respectively. There is not significant differences between male and female martial artists and team sportsmen ($p>0.05$) in aggressiveness. Received social support scores for martial artists and team sportsmen were: x_{male}= 35,19±14,07, x_{male} = 60,20±12,31 and x_{female} = 66,86±6,25, x_{female} = 48,07±8,13 respectively. Thus, the scores of male team sportsmen were significantly higher than martial artists ($p<0,001$). On contrary this, the social support scores of martial artists for women are higher than team sportsmen significantly ($p<0,001$). In total,

aggressiveness and received social support scores of martial artists (x_{MAs}= 46,58±7,62; x_{MAs}= 51,02±19,23) and team sportsmen (x_{TS}= 47,72±7,34; x_{TS}= 54,13±12,05) showed no significant differences.

Discussion and Conclusion. In our study there is not significant difference between female and male MAs and TS in aggressiveness level (Table 1). On the other hand, the scores of male team sportsmen for social support were significantly higher than martial artists (Table 1). On contrary this, the social support scores of martial artists for women are higher than team sportsmen significantly (Table 1). The higher social support for female MAs result in the culture of Turkiye. Doing martial arts for a female can be received as interesting thus the support is higher than the athletes of common sports such as basketball, volleyball and handball. Like many others, we think that the assertiveness level of MAs is higher than team sports athletes. It is not a true claim. Within the general psychological domain, there appear to be affective, cognitive, social, and behavioral benefits from martial arts training. Affective factors associated with martial arts training include higher self-esteem (e.g., M.E. Finkenberg, 1990; C.L. Richman, H. Rehberg, 1986; M.E. Trulson, 1986), a more positive response to physical challenges (J.R. Fuller, 1988), greater autonomy (R.B. Duthie, L. Hope, D.G. Barker, 1978), emotional stability (B. Konzak, F. Boudreau, 1984), assertiveness (B. Konzak, F. Boudreau, 1984), and self-assurance or self-confidence (R.B. Duthie et al., 1978; B. Konzak, F. Boudreau, 1984). Cognitive factors influenced positively by martial arts training include concentration (B. Konzak, F. Boudreau, 1984) and a greater awareness of mental capacities as well as a cultivation of that potential (F.C. Seitz, G.D. Olson, B. Locke, R. Quam, 1990). Social benefits of martial arts training include learning to be more respectful of others (B. Konzak, F. Boudreau, 1984). The martial arts have existed for more than 3000 years, and today, there are hundreds of different styles. The martial arts historically have emphasized the importance of self-regulation, using terms such as self-control, body control, and discipline. The character training inherent in traditional martial arts teaches an individual to become more self-aware and to actively pursue character growth through the constant evaluation of thoughts and actions and subsequent adaptation of thoughts and actions for the better. J.R. Fuller (1988) commented on the martial arts character training by stating, ‘‘From a psychotherapeutic viewpoint, the martial arts may be viewed as formalized, refined systems of human potential training which provide interesting practical models and mechanisms of psychological intervention’’. C.L. Richman and H. Rehberg (1986) suggested that the perseverance and growth of the martial arts over time might provide evidence of their significant physical and psychological benefits. Empirical studies and theoretical reviews of the martial arts has linked to self-regulation theory and provides a more thorough review of the processes involved in martial arts training that strengthen one’s capacity for self-regulation (K.D. Lakes, 2003). Broadly, outcomes of martial arts training can be classified into two domains: physical (i.e., physical skill and psychological effects related to physical appearance and ability) and psychological (i.e., generalized psychological benefits). In the physical domain, earlier researchers attributed outcomes, such as increased physical confidence (M.E. Finkenberg, 1990), improved self-perceptions of physical ability (C.L. Richman, H. Rehberg, 1986), and enhanced body image to martial arts training. As the result of this study is limited it can not be generalized and further research should be done different study design and instruments.

Table 3. The Comparison of Martial Artists (MAs) with Team Sportsmen (TS)

	N	Mean	Sd	t	P
Aggression					
MAs Male-TS Male	90	46,51	7,859		
	90	47,74	7,266	-1,093	0,276
Aggression					
MAs Female-TS Female	90	46,64	7,425		
	90	47,69	7,468	-0,941	0,348
Social Support					
MAs Male-TS Male	90	35,19	14,074		
	90	60,20	12,313	-12,689	0,000*
Social Support					
MAs Female-TS Female	90	66,86	6,258		
	90	48,07	8,133	17,369	0,000*
Aggression					
MAs (Total)- TS (Total)	180	46,58	7,624		
	180	47,72	7,347	-1,443	0,150
Social Support					
MAs (Total)- TS (Total)	180	51,02	19,237		
	180	54,13	12,053	-1,839	0,067

References

ALBRECHT, T.L., ADELMAN, M.B., 1984, *Social support and life stress: New directions for communication research.* Human Communication Research, 11, 3-22.

AVERILL, J.R., 1983, *Studies on anger and aggression: Implications for theories of emotion.* American Psychologist, 38, 1145–1160.

BARON, R.A., RICHARDSON, D.R., 1994, *Human Aggression (2nd ed.).* New York: Plenum Press.

BERKOWITZ, L.B., 1993, *Aggression: Its causes, consequences and control*. New York: McGraw-Hill.

BERKOWITZ, L.B., 1983, *The experience of anger as a parallel process in the display of impulsive 'angry' aggression. In R. G. Geen, & E. I. Donnerstein (Eds.),* Aggression: Theoretical and empirical reviews, Vol. 1 (pp. 103–133). New York: Academic Press.

BERKOWITZ, L.B., 1989, *Frustration-aggression hypothesis: Examination and reformulation.* Psychological Bulletin, 106, 59–73.

CONRAD, C., 1985, *Strategic organizational communication: Cultures, situations, and adaptations.* New York: Holt, Rinehart & Winston.

CONROY, D.E., SILVA, J.M., NEWCOMER, R.R., WALKER, B. W., JOHNSON, M. S., 2001., *Personal and participatory socializers of the perceived legitimacy of aggressive behavior in sport.* Aggressive Behavior, 27, 405–418.

DUTHIE, R. B., HOPE, L., BARKER, D.G., 1978, *Selected personality traits of martial artists as measured by the adjective checklist.* Perceptual and Motor Skills, 47, 71–76.

EKER, D., ARKAR H., 1995, *Çok Boyutlu Algılanan Sosyal Destek Ölçeğinin faktör yapısı, geçerlik ve güvenirliği*. Türk Psikoloji Dergisi; 10:45-55.

FARRINGTON, D.P., 1978, *The family backgrounds of aggressive youths. In L. Hersov, M. Berger, & D. Shaffer (Eds.),* Aggression and antisocial behaviour in childhood and adolescence (pp. 73–93). Oxford, England: Pergamon.

FINKENBERG, M.E., 1990, *Effect of participation in taekwondo on college women's self-concept.* Perceptual and Motor Skills, 71, 891–894.

FULLER, J.R., 1988, *Martial arts and psychological health.* British Journal of Medical Psychology, 61, 317–328.

GOTTLIEB, B.H., TODD, D., 1979, *Characterizing and promoting social support in natural settings*. InR. Munoz, L. Snowden, & J. Kelley (Eds.), Social and psychological research in community settings (pp. 183-217). San Francisco: Jossey-Bass.

HARDY, C.J., RICHMAN, J.M., ROSENFELD, L.B., 1991, *The role of social support in the life stresslinjury relationship.* The Sport Psychologist, 5, 128-139.

HOUSE, J., 1981, *Work stress and social support.* Reading, MA: Addison-Wesley.

HUSMAN, B.F., SILVA, J.M., 1984, *Aggression in sport: Definitional and theoretical considerations.* In J. M. Silva, & R. S. Weinberg (Eds.), Psychological foundations of sport (pp. 246–260). Champaign, IL: Human Kinetics.

KERR, J.H., 1999, *The role of aggression and violence in sport:* A rejoinder to the ISSP position stand. The Sport Psychologist, 13, 83–88.

KERR, J.H., 2002, *Issues in aggression and violence in sport*: The ISSP position stand revisited. The Sport Psychologist, 16, 68–78.

KİPER, İ., 1984, *Saldırganlık Türlerinin Çeşitli Ekonomik, Sosyal ve Akademik Değişkenlerle İlişkisi"*. Yayımlanmamış Yüksek Lisans Tezi. Ankara Üniversitesi, Ankara.

KONZAK, B., BOUDREAU, F., 1984, *Martial arts training and mental health: An exercise in self-help. Canada's Mental Health, 32, 2–8.*

LAKES, K.D., 2003, *The martial arts as a context for promoting the development of self-regulation.* Manuscript in preparation (Available from Kimberley Lakes, PhD, Children's Hospital of Orange County, 455 S. Main Street, Orange, CA 92868).

LOY, J.W., MCPHERSON, B.D., KENYON, G.S., 1978, *Sport and social systems.* Reading, MA: Addison-Wesley.

MAXWELL, J. P., 2004, *Anger rumination: An antecedent of athlete aggression?* Psychology of Sport and Exercise, 5, 279–289.

MCNAIR, D.M., LORR, M., DROPPELMAN, L.F., 1971, *Manual for the profile of mood states.* San Diego, CA: Educational and Industrial Testing Services.

MCNAIR, D.M., LORR, M., DROPPELMAN, L.F., 1992, *Revised manual for the profile of mood states.* San Diego, CA: Educational and Industrial Testing Services

MCPHERSON, B.D., 1971, *Minority group socialization: An alternative explanation for the segregation hy playing position hypothesis.* Paper presented at the Intemational Symposium on the Sociology of Sport, Waterloo, ON.

PINES, A.M., ARONSON, E., KAFRY, D., 1981, *Burnout.* New York: Free Press.

RICHMAN, C.L., REHBERG, H., 1986, *The development of self-esteem through the martial arts.* International Journal of Sport Psychology, 17, 234–239.

ROSENFELD, L.B., RICHMAN, J.M., HARDY, C.J., 1989, *Examining social support Networks among athletes: Description and relationship to stress.* The Sport Psychologist, 3, 23-33.

RUSSELL, G.W., 1993, *The social psychology of sport.* New York: Springer.

SARASON, I.G., SARASON, B.R., PIERCE, G.R., 1990, *Social support, personality and performance.* Journal of Applied Sport Psychology, 2, 117-127.

SEITZ, F.C., OLSON, G.D., LOCKE, B., QUAM, R., 1990, *The martial arts and mental health: The challenge of managing energy.* Perceptual and Motor Skills, 70, 459–464.

SMITH, M.D., 1983, *Violence and sport.* Toronto: Butterworths.

STEPHENS, D. E., 1998, Aggression. In J. L. Duda (Ed.), *Advances in sport and exercise psychology measurement* (pp.277–292). Morgantown, WV: Fitness Information Technology, Ltd.

TENENBAUM, G., SACKS, D.N., MILLER, J.W., GOLDEN, A.S., DOOLIN, N., 2000, *Aggression and violence in sport: A reply to Kerr's rejoinder.* The Sport Psychologist, 14, 315–326.

TENENBAUM, G., STEWART, E., SINGER, R.N., DUDA, J., 1997, *Aggression and violence in sport: An ISSP position stand.* The Sport Psychologist, 11, 1–7.

TERRY, P.C., LANE, A.M., LANE, H.J., & KEOHANE, L., 1999, *Development and validation of a mood measure for adolescents*. Journal of Sport Sciences, 17, 861–872.

TRULSON, M.E., 1986, *Martial arts training: A novel ''cure'' for juvenile delinquency.* Human Relations, 39, 1131–1140.

WORRELL, G.L., HARRIS, D.V., 1986, *The relationship of perceived and observed aggression of ice hockey players.* International Journal of Sport Psychology, 17, 34–40.

ZIMET, G., DAHLEM, N., ZIMET, S., FARLEY, G., 1988, *The Multidimensional Scale of the Perceived Social Support.* Journal of Personality Assesment. 55, 610-617.

RELATION BETWEEN MOTIVATION AND TEMPTATION FOR USING THE DOPING SUBSTANCES IN HIGH PERFORMANCE SPORTS

Vâjială G. [1], Epuran M. [1], Stănescu M. [2], Potzaichin I.[1], Berbecaru C. [1]
[1]Romanian Antidoping Agency, ROMANIA
[2]National University of Physical Education and Sport, Bucharest, ROMANIA
Email: monica_iul@yahoo.com / 20.02.2010 / 01.03.2010

Abstract

Purpose. The paper, realized within the project "Risk Factors of Doping Behavior related to Personality Structure and Social Environment of the Athletes", financed by World Anti-doping Agency (WADA) (2007 – 2008) and managed by Romanian Anti-Doping Agency (ANAD) (Project Responsible Prof.Ph.D. Graziela Vajiala), has as purpose to analyze the relation between sportsmen motivation for high performance sports and temptation to use prohibited substances.

Methods. Among the research methods used in the project, we note for this paper momentary psychological state questionnaire (POMS) and opinion questionnaire for athletes. From the 57 items of the questionnaire for athletes, we have examined those which refer to the motivation of athletes for sports performance. This attitude was associated with those related to consumption of prohibited substances and momentary mental states. To analyze the differences between groups of athletes (1404 juniors and seniors) it was used the chi square test.

Results. There were found significant correlation between some type of motivation, sportsmen mood states and temptations to use doping substances.

Conclusions. The athletes externally motivated to practice sport, who present anger-hostility states with over average values, as well as those internally motivated to practice different sport disciplines, who have over average tension-depression values are tempted to use prohibited substances more that other athletes. No matter how content they are, the athletes experiencing certain spontaneous states of mind – such as tension, depression, fatigue might use doping substances. The risk is higher in senior athletes with weak results.

Key words: motivation, risk factors, doping substances, education**.**

Introduction and research objectives.

The phenomenon of prohibited substances use among athletes, intending to increase artificially their performance has its origins in the ancient times and it is now so present, as it is supported and fed by the professional sport, so much commercialized and mediated.

The risk factors are variables associated to the risk, in terms of probability, where one or more variable in some circumstances may be boosts for a deviant behavior such as the use of prohibited substances among athletes. According to WADA "prevention of doping in sport supposes to increase the conscience about the real problems inside this phenomenon, to disseminate relevant and correct information, and also to influence in a positive manner the beliefs, the attitudes and the behaviors."