Mohammad Ali Boostani, Mohammad Hassan Boostani, Vali Nowzari

Investigation and Comparison of Aggression in Athletes in)...

Ido Movement for Culture : journal of martial arts anthropology : theory of culture, psychophysical culture, cultural tourism, anthropology of martial arts, combat sports 12/3, 1-4

2012

"IDO MOVEMENT FOR CULTURE. Journal of Martial Arts Anthropology",
Vol. 12, no. 3 (2012), pp. 1–4

PSYCHOLOGY

Mohammad Ali Boostani[1,ABDFG], Mohammad Hassan Boostani[1,BDEFG], Vali Nowzari[2, BC]

1. Islamic Azad University, Arsanjan Branch - Young Researchers Club (Iran)
2. Islamic Azad University, Arsanjan Branch (Iran)
e-mail: boostani_m_aa@yahoo.com

Investigation and comparison of aggression in athletes in non-contact (swimming), limited contact (karate) and contact (kickboxing) sports

Submission: 27.12.2011, acceptance: 16.04.2012

Key words: aggression, swimming, karate, kickboxing

Abstract

It is inevitable that everyone dealing with sport will encounter the phenomenon known as "aggression". Rarely can we find a subject that is as considered as aggression and violence. To study the above cases, the aim of this research is to carry out a survey about aggression rates in some fields of sport, compare these fields with each other and compare athletes with non-athletes. 105 elite athletes in different sports, 38 persons in swimming (non-contact sport), 32 persons in controlling karate (limited contact) and 35 persons in kickboxing (contactable sport) who) participated in the second Iranian Olympiad in 2008, were compared with 105 non-athletes. All of subjects completed an aggression questionnaire, compiled by Buss and Perry [1992]. After analysis of the questionnaires and using the analysis of variance (ANOVA) with the comparison between different types, data were obtained from the aggression questionnaire.

The findings of the research indicate a significant difference in the different levels of aggression between research types ($p<0.001$). Tukey's test also shows that the greatest difference was in the kickboxing group and the least difference was in karate and swimming. The results show that except in kickboxing which is contact and rough, athletes in other fields do not have significantly different aggression factors from non-athletes and the theory that athletes in non-contact and limited-contact fields have more aggression than non-athletes is not borne out by the result of this research.

Introduction

There is a general view that aggressive behaviour is firstly perceived negatively and secondly that the purpose of aggressive behaviour should be harm.

In assertive behaviour, however, athletes are permitted to act aggressively within the framework of the sport and use physical injury as a means of winning the competition. In hostile aggression a player is angry and his primary aim is to injure to his opponent [Caron, Halteman, Stacy 1997], because hostile aggression is along with physical injuries, the probability of its existence in contact sports is more common than the non-contact sport.

The contact sport is attractive to the player who was aggressive before or taking part in these kinds of sport can increase aggression [Cox 2002]. In addition maybe hostile aggression not only in the sport field but also outside the sport field can happen. In fact according to Bandura's social learning theory, aggressive behaviour can arise from accepting other behaviours and or even player's own behavior [Bandura 1973]. On the other hand although contact field athletes may be compared to non-contact field athletes, non sport aggression show more aggression , but some believe that severer active sport causes to be evaluated energy and excitement this process can decrease aggression in a daily life [Bushman 2002].

Research done within this area is of two types. First is the research that confirms the existence of aggression among athletes. Conversely, the second type rejects the existence of this property among athletes. In general, research done within this area supports the theory that athletes in comparison with non-athletes are more affected by aggressive behaviour [Frinter, Rubinson 1993; Chandler,

Johnson, Carroll 1999]. Fletcher and Dowell [1971] and Valliant *et al.* [1981] studies on college athletes showed that totally athletes are more aggressive than non-athletes. Comparing female athletes and non-athletes, other specialists showed that female athletes are more aggressive than non-athlete [Hernandez-Ardieta *et al.* 2002].

Filho *et al.* [2005] study also demonstrated a significant difference among athletes and non-athletes regarding aggression level, particularly in the martial arts. The body of these findings illustrates that involvement in any sport activity is related to aggressive properties [Lemieux, McKelvie, Scout 2004].

On the other hand, some researchers observed no relationship between involvement in sport and aggression. For example, Morgan and Costil [1996] found that athletes in comparison with non-athletes have even lower levels of aggression.

To pay attention to above cases, the aim of this research is to perform a survey about aggression rate in some sport fields, compare these fields with each other and compare athletes with non-athletes.

Methods

105 elite athletes in different sports, 38 persons in swimming (non- contact sport), 32 persons in controlling karate (limited contact), 35 persons in kickboxing (contactable sport), were compared with 105 non-athletes with mean age 23.4 1.8.

All of subjects complete aggression questionnaire, of Buss and Perry [1992]. This questionnaire contains twenty nine questions which evaluate four behaviour factors, physical aggression (nine questions), verbal aggression (5 questions), anger (7 questions) and hostility (8 questions). These factors are classified under three motor or instrumental components (physical and verbal aggression), affective component (anger) and cognitive component (hostility).

The validity of original questionnaires form out by makers of these questionnaires which in this order was reported physical aggression, verbal aggression , anger and hostility 80% , 76% , 72% and 72%.

Athletes individually and in groups with the help of researchers complete questionnaires and non-athletes also individually with a similar method, complete the questionnaires. Also some sociological information like age, height, weight, education degree, sport position is taken from all of experiences.

After classification of questionnaires with the use of analysis of variance (ANOVA) with the comparison between different types, data were obtained from aggression questionnaire.

Table 1. Statistical criteria of research variables in different groups

Variables	Index / Statistical groups	Mean	Standard deviation	Number of subjects	Degree of freedom	P-value
Anger	Swimming	13.5	3.8	38	3,206	0.001
	Karate	15.3	4.2	32		
	Kickboxing	23.2	6.8	35		
	Non-Athlete	19.1	3.3	105		
Physical aggression	Swimming	17.2	5.7	38	3,206	0.001
	Karate	21.1	4.1	32		
	Kickboxing	26.9	5.9	35		
	Non-Athlete	21.7	6.1	105		
Verbal aggression	Swimming	13.7	4.4	38	3,206	0.001
	Karate	15.3	4.7	32		
	Kickboxing	19.5	5.6	35		
	Non-Athlete	18.1	4.2	105		
Hostility	Swimming	10.8	4.1	38	3,206	0.001
	Karate	11.2	3.6	32		
	Kickboxing	17.6	5.2	35		
	Non-Athlete	15.3	3.9	105		
Total	Swimming	55.2	14.1	38	3,206	0.001
	Karate	62.9	22.8	32		
	Kickboxing	87.2	21.5	35		
	Non-Athlete	74.2	11.1	105		

Results

After gathering information, obtained results with the use of analysis of variance test (ANOVA) were analyzed that results are brought in the table 1.

As it is clearly shown in the table groups were different from each other in all of behavioural factors. Tukey's test shows that kickboxing athletes in anger, physical aggression, hostility factors and in total had higher grades.

This group in a verbal aggression factor is distinguished from the swimming group and karate and in these factors the grades are significant high.

Also the results show that except the kickboxing group, other sport groups are not distinctive in different factors of aggression from a non-athletes group.

Discussion and Conclusion

In this research the rate of aggression was studied and considered in athletes in the fields of non-contact, limited contact and contact sports.

The results show that except in kickboxing which is contact and rough, athletes in other fields do not have significantly different aggression factors from non-athletes and the theory that athletes in non-contact and limited-contact fields have more aggression than non-athletes is not borne out by the result of this research.

It seems that sports activities, especially those with limited contact (like controlling karate) cause an offload of energy and excitement which leads to a decrease in aggressive behaviour especially in the outdoor sports environment. The results of the research also shows that the aggression levels of practitioners of controlling karate is also lower than those of non-athletes which may indicate that the sporting activity has a modifying role in a person's behaviour.

Morgan and Costill [1996], Zillman *et al.* [1994] state in their research that athletes, compared with non-athletes, show lower aggression and anger from themselves [Zillman, Johnson, Day 1994; Morgan, Costill 1996]. Chandler *et al.* [1999] and Young [1990] state that athletes more than non-athletes get involved in aggressive behaviour [Young 1990; Chandler, Johnson, Carroll 1999]. Dobosz and Beaty [1999] and Maresh *et al.* [1991] comparing track and field athletes with non-athletes show that runners have low aggression levels [Maresh *et al.* 1991; Dobosz, Beaty 1999].

Filho *et al.* [2005] and Fuller [1988] in their studies show a high level of aggression in martial arts [10-17]. Conversely Szabo and Parkin [2001] show lower aggression levels in martial art athletes in comparison with non-athletes [Szabo, Parkin 2001].

One of the interesting findings of the present study is the existence of a different behavioural model for Iranian athletes in comparison with athletes from other societies. Unlike catharsis theory's [Cox 2002; Bushman, Baumeister, Stack 1999] claim, it seems that sport in Iranian society is not used as an acceptable style and means of energy discharge, and aggression reduction in the daily lives of people. People in every society have particular behaviour in sport and physical activities. Physical activity in the form of sport follows culture. As it is stated in the Seville statement on violence, aggression is not programmed genetically, but it follows cultural factors to a large extent [*Seville Statement on Violence* 1986]. It is most likely that in Iranian society, participation in sport has moral and human dimensions that are used to direct a person's elevation, both mentally and physically.

In any case, the results of this similar research show that sports activities have a mainly positive effect on behavioural factors like aggression, and have the capacity to adapt a person's behaviour.

Furthermore, in some fields of sport where athletes have achieved higher grades, we should search for causes in the cultural and specific instructions of that field and the existence of psychological and cultural connections between athletes and coaches in that sport

More research in this field may clear up the ambiguities in this subject.

References

1. Bandura A. (1973), *Aggression: A social learning analysis*, Prentice Hall, Englewood Cliffs, NJ.
2. Bushman B.J. (2002), *Does venting anger feed of extinguish the flame?*, "Personality and Social Psychology Bulletin", 28: pp. 724-731.
3. Bushman B.J., Baumeister R.F., Stack A.D. (1999), *Catharsis aggression, and persuasive influence: self-fulfilling or self-defeating prophecies?* "Journal of Personality and Social Psychology", 76: pp. 367-376.
4. Caron S.L., Halteman W.A., Stacy C. (1997), *Athletes and rape: Is there a connection?*, "Perceptual and Motor Skills", 85: pp. 1379-1393.
5. Chandler S.B., Johnson D.J., Carroll P.S. (1999), *Abusive, behavior of college athletes,* "College Student Journal", 33 (4).
6. Cox R.H. (2002), *Sport psychology: concepts and application.* 5th ed., McGraw – Hill, Boston, WCB.
7. Dobosz R., Beaty L. (1999), *The relationship between athletic participation and high school student's leadership ability*, "Journal of Adolescence", 34:215-220.

8. Filho M.G.B., Ribeiro L.C.S., Garcia F.G. (2005), *Comparison of personality characteristics between high-level Brazilian athletes and non–athletes*, "Revista Brazileira de Medicina do Esporte" (English version), 11 (2): 114-118.
9. Fletcher R., Dowell L. (1971), *Selected personality of high-school athletes and non-athletes,* "Journal of Psychology", 77: 39-41.
10. Frinter M.P., Rubinson L. (1993), *Acquaintance rape: the influence of alcohol, fraternity membership, and sports team membership*, "Journal of Sex Education and Therapy", 19: 272-284.
11. Fuller J.R. (1988), *Martial arts and psychology health*, "British Journal of Med Psychology", 61(4): 317-328.
12. Hernandez-Ardieta L.P., Lopez J.C., Dolores E., Ruiz J.G. (2002), *Personalidad, diferencias individuales y ejecución deportiva* [in:] A. Zafra, H.J. Ruiz, G.N. Garcia [eds.], *Manual de psicología del deporte*, Murcia: DM.
13. Lemieux P., McKelvie S.J., Scout D. (2004), *Self-reported hostile aggression in contact athletes, no contact athletes and non-athletes,* "The Online Journal of Sport Psychology".
14. Maresh C.M., Sheckley B.G., Allen G.J., Camaione D.N., Sinatra S.T. (1991), *Middle age male distances runners: psychological and psychological profiles*, "Journal of Sports Medicine and Physical Fitness", 31: 461-469
15. Morgan W.P., Costill D.L. (1996), *Selected psychological characteristics and health behaviors of aging marathon runners: longitudinal study*, "International Journal of Sport Med", 17: 305-312.
16. *Seville Statement on Violence* (1986), http:/www.unesco.org/human_rights/hrfv.htm.
17. Szabo A., Parkin A.M. (2001), *The psychological impact of training deprivation in martial arts,* "Psychology of Sport and Exercise", 2 (3), 187-199.
18. Valliant P.M., Bennie F.A., Valliant J.J. (1981), *Do marathoners differ from joggers in personality profile: a sport psychology approach?*, "Journal of Sports Medicine and Physical Fitness", 21: 62-67.
19. Young T.J. (1990), *Sensation seeking and self reported criminality among student – athletes,* "Percept Motor Skills", 70(3 Pt 1): 959-62.
20. Zillman D., Johnson R.C., Day K.D. (1994), *Provoked and unprovoked aggressiveness in athletes,* "Journal of Research in Personality".

Badanie i porównanie agresji u sportowców w dyscyplinach bezkontaktowych (pływanie), ograniczonego kontaktu (karate) i kontaktowych (kickboxing)

Słowa kluczowe: agresja, pływanie, karate, kickboxing

Streszczenie

Autorzy tekstu w swojej pracy poruszają częsty temat dotyczący agresji w sporcie. Celem badania było zbadanie stopnia agresji w różnych sporach, porównanie tych dziedzin oraz zbadanie podobieństw natężenia agresji u sportowców i niesportowców. Badaniu poddanych zostało 105 wysokiej klasy sportowców; 38 podmiotów badania stanowili pływacy (reprezentujący sport bezkontaktowy), 32 - karateków (kontrolowane karate z ograniczonym kontaktem) oraz 35 zawodników kickboxingu (sport kontaktowy). Zawodnicy ci brali udział w drugiej Irańskiej Olimpiadzie w 2008 roku. Porównano ich ze 105 niesportowcami.

Przeprowadzono ankietę według Bussa i Perrego [1992] dotyczącą agresji, po czym zanalizowano wyniki przy pomocy analizy wariancji ANOVA. Wyniki badania wskazują, iż istnieje statystyczne ważna różnica ($p<0.001$) pomiędzy podmiotami badań. Test Tukeya pokazuje także, że największa różnica dotyczy grupy kick-bokserów, a najmniejsza pływaków. Z rezultatów wynika, iż wyjątek stanowi kickboxing jako sport kontaktowy i brutalny, gdzie poziom agresji jest dość wysoki. W pozostałych sportach poziom agresji u sportowców i niesportowców nie wykazywał zbytnich odchyleń. Wydaje się, iż poziom agresji zostaje rozładowany w czasie uprawiania pozornie brutalnego sportu i wpływa pozytywnie na zachowanie poza salą sportową.