3rd World Conference on Learning, Teaching and Educational Leadership (WCLTA-2012)

Evaluation of trait anger and anger expression in taekwondo athletes in relation to gender and success

Tennur Yerlisu Lapa, Duygu Aksoy*, Zehra Certel, Erkan Çalışkan

Mehmet Ali Özçelik*, Gülsün Çeiliki

School of Physical Education and Sports, Akdeniz University, Antalya 07058, Turkey

Abstract

The aim of this study is to determine the relationships between trait anger and anger expression styles, gender and success in female and male taekwondo athletes. The study population consisted of a total of 1038 taekwondo athletes from which a sample of 362 was taken (237 male and 125 female). The State-Trait Anger Scale (STAS) developed by Spielberger (1983) was used. The results revealed a positive relationship between trait anger and anger expression styles; significant differences were shown related to gender, anger in, anger out and anger control scores. No difference was observed between trait anger and anger expression styles, and success. A trait anger level of 23.11 out of 40 implies the athletes experienced a medium level of trait anger; the highest correlation of trait anger was with the anger out dimension of the STAS. The scores associated with the anger in, anger out dimensions and anger control of women were lower; with increase in success of athletes, trait anger and anger expression scores also increased.

Keywords: Trait anger, anger in, anger out, anger control, taekwondo

1. Introduction

Anger is often a precursor to aggression and is influenced by complex interactions between multiple personal and environmental variables, including neurological and endocrine processes as well as temperament (Deffenbacher, 1996). Pre-anger state and appraisal processes, as well as external events triggering memories and images, can interact to influence the internal experience of anger and the aggressive responses that follow. Anger can be elicited by a relatively clear external precipitant, which often is easily identified by an individual (Deffenbacher, 1996).

Anger can be defined as “a psychobiological emotional state or condition that consists of feelings that vary in intensity from mild irritation or annoyance to intense fury and rage, accompanied by activation and of neuroendocrine processes and arousal of the autonomic nervous system” (Spielberger, 1999). According to Spielberger (1999), the experience of anger can be conceptualized as consisting of two main components, known as state anger and trait anger. State anger is defined as a psychobiological emotional state or a condition characterized by subjective feelings that vary in intensity from mild irritation or annoyance to intense rage. Trait anger is defined...
in terms of “individual differences in the disposition to perceive a wide range of situations as annoying or frustrating and by the tendency to respond to such situations with elevations in state anger” (Spielberger, 1999).

There is a growing interest in the study of athletes’ emotional experiences related to successful and unsuccessful performances; several other emotions (i.e. anxiety, anger, satisfaction, pride) can also be experienced during any sporting activities (Ruiz et al., 2011). The concept of anger is associated with that of aggression. A display of aggressive behavior causes the emotion of anger (Balkaya, 2001; Kulaksızoğlu, 2000). Factors including the individual’s development, the media and the environment may also influence feelings of anger.

Anger is frequently experienced and expressed as aggressive behavior in the athletic domain, particularly in combative and contact sports such as ice-hockey, American football, boxing, soccer, swimming and karate (Atay et al., 2011; Kurt et al., 2012; Maxwell, 2004; Ruiz et al., 2004; Ruiz et al., 2011; Terry et al., 1995).

Taekwondo, one of the combative sports, as Olympic branch since Olympics. Turkey’s success in taekwondo is notable; 2 medals were won by Turkey in the 2012 London Olympics. Despite taekwondo’s respectable background, some authorities have claimed that its participants’ anger and aggression levels are higher than in other sports.

The degree of anger displayed by practitioners of taekwondo is relevant when considering the underlying philosophy of taekwondo which encourages virtuous behaviors such as being better people; the protection of the powerless; and the control of anger and aggression.

Spielberger, Jacobs, Russell, and Crane (1983) cited in Özer (1984) consider the feeling of anger as a consistent state, whereas they identify the state of anger as tension, anger and being irate as a result of the behavior related to the goal being prevented; they explain consistent anger as a concept which reflects how often the state of anger is felt.

The literature suggests that trait anger and anger management skills can be acquired by taekwondo athletes and this may decrease their level of anger. The aim of this research is to determine the relationship between anger and anger expression styles in sportsmen and sportswomen who do taekwondo and who participated in the 2012 Turkish Senior Taekwondo Championships; differences in terms of gender and success obtained are also considered.

2. Methods

The study population from which the sample is taken consists of 1038 athletes (410 women and 628 men) who participated in the 2012 Turkish Senior Taekwondo Championships. A random sample was taken, consisting of 362 athletes (Mage = 20.27±3.55) including 237 men (Mage =20.58±3.65) and 125 women (Mage =19.70±3.28) with sport experience, on average, of 7 years (Myear =7.57±3.73). In this research, The State-Trait Anger Scale (STAS), developed by Spielberger (1983) and translated into Turkish by Özer (1994), was used to determine anger and state of anger.

The scale consists of 34 items and 4 sub dimensions used for the determination of anger and state of anger in teenagers and adults. Sub dimensions of the scale are named constant anger (10 items); internal anger (8 items); external anger (8 items); and anger control (8 items). Constant anger shows a high anger level; internal anger shows repressed anger; external anger reveals the ease of expression of anger; and anger control shows the ability to control anger.

Data analysis involved the use of descriptive statistical methods for processing personal information including frequency (n), percentage (%), arithmetic mean (M) and standard deviation (SD). The Pearson Product Moment Correlation was used to determine relationships between constant anger and anger wording; the (non-parametric) Mann Whitney U test and Kruskal–Wallis one-way analysis of variance were used to examine differences between athletes’ constant anger and anger wordings in terms of gender and success variables.

3. Results

The correlation values between trait anger and anger expression styles of the participants are presented in Table 1. According to Pearson’s Correlation analysis, there is a positive linear relationship between trait anger and anger expression styles of the participants (p<0.001).
Table 1. Correlation between trait anger and anger expression styles scores of Taekwondo athletes

| Trait          | Anger In       | Anger Out      | Anger Control | \( r \) | \( p \) | \( r \) | \( p \) | \( r \) | \( p \) |
|---------------|---------------|---------------|--------------|-------|-------|-------|-------|-------|-------|
| Trait Anger   | \( r = .376^{**} \) \( p = .000 \) | \( r = .536^{**} \) \( p = .000 \) | \( r = .194^{**} \) \( p = .000 \) |       |       |       |       |       |       |
| Anger In      | \( r = .476^{**} \) \( p = .000 \) | \( r = .841^{**} \) \( p = .000 \) | \( r = .465^{**} \) \( p = .000 \) |       |       |       |       |       |       |
| Anger Out     | \( r = .536^{**} \) \( p = .000 \) | \( r = .841^{**} \) \( p = .000 \) | \( r = .364^{**} \) \( p = .000 \) |       |       |       |       |       |       |
| Anger Control | \( r = .194^{**} \) \( p = .000 \) | \( r = .465^{**} \) \( p = .000 \) | \( r = .364^{**} \) \( p = .000 \) |       |       |       |       |       |       |

**Correlation is significant at the level \( p < 0.01 \) (2 tailed).

The mean and standard deviation values of trait anger and anger expression styles, according to the gender of the participants, are presented in Table 2.

The Mann Whitney U test, conducted to test trait anger and anger expression styles of the participants according to gender, showed no statistically significant difference between female and male participants regarding trait anger and anger expression styles (\( p > 0.05 \)).

Table 2. Evaluation of trait anger-anger expression styles scores of Taekwondo athletes according to gender

| Gender          | Mean | SD  | Mean | SD  | Z    | \( p \) |
|-----------------|------|-----|------|-----|------|--------|
| Trait Anger     | 23.16| 5.51| 23.08| 6.69| -1.181| .85    |
| Anger In        | 16.85| 4.52| 18.62| 5.12| -3.54 | .00    |
| Anger Out       | 17.38| 4.89| 18.64| 5.38| -2.51 | .01    |
| Anger Control   | 19.96| 4.33| 20.94| 4.53| -2.26 | .02    |

Mean and standard deviation values of trait anger and anger expression styles, according to success of the participants, are presented in Table 3.

The Kruskal–Wallis one-way analysis of variance, conducted to test trait anger and anger expression styles of participants according to success, showed a statistically significant difference regarding trait anger and anger expression styles and participants’ scores (\( p < 0.05 \)). Trait anger and anger expression styles showed a significant difference in relation to success in trait anger and anger out styles; participants with no success had lower trait anger and anger out scores compared to participants who were successful in international tournaments.

Table 3. Evaluation of trait anger and anger expression styles scores of Taekwondo athletes according to success

| Success          | Trait Anger | Anger In | Anger Out | Anger Control | \( \chi^2 \) | \( p \) |
|------------------|-------------|----------|-----------|---------------|-------------|-------|
| No Success       | \( n = (134) \) | Mean | SD  | Mean | SD  | Mean | SD  | Mean | SD  | \( \chi^2 \) | \( p \) |
| Success in Turkey| \( n = (160) \) | 23.34 | 6.77 | 18.01 | 5.17 | 19.75 | 4.90 | 21.35 | 3.69 | 9.80 | .02 |
| Success in World, Europe/International Tournaments/Turkey Success | \( n = (48) \) | 24.27 | 5.65 | 18.89 | 4.61 | 19.15 | 4.65 | 21.45 | 3.18 | 5.27 | .15 |
| Success in World, Europe/International Tournaments/Turkey Success | \( n = (20) \) | 25.15 | 4.83 | 19.15 | 4.65 | 20.40 | 4.83 | 21.45 | 3.18 | 13.96 | .00 |
| Mean | SD  | Mean | SD  | Mean | SD  | Mean | SD  | Mean | SD  | \( \chi^2 \) | \( p \) |
| Trait Anger     | 22.11 | 6.00 | 23.34 | 6.77 | 24.27 | 5.65 | 25.15 | 4.83 | 9.80 | .02 |
| Anger In        | 17.52 | 4.90 | 18.01 | 5.17 | 18.89 | 4.61 | 19.15 | 4.65 | 5.27 | .15 |
| Anger Out       | 17.21 | 5.32 | 18.31 | 5.36 | 19.75 | 4.90 | 20.40 | 4.83 | 13.96 | .00 |
| Anger Control   | 20.11 | 4.75 | 20.67 | 4.59 | 21.35 | 3.69 | 21.45 | 3.18 | 4.39 | .22 |
4. Discussion and conclusions

The results reveal a positive linear relationship between the scores of constant anger and anger wording (p<0.01). Constant anger and anger wording scores of practitioners of taekwondo show a statistically significant difference between the internal anger score, external anger score, and control score in terms of gender (p<0.05). Analysis of constant anger and external anger scores reveal a statistically significant difference in terms of success achieved (p<0.05).

Although anger can be described as a healthy emotional reaction, it is important how it is expressed or whether or not it is controlled. The demonstration of anger, either verbally or physically, can be described as anger expression; inward anger expression, on the other hand, involves hiding anger and trying not to show any effects visually whatsoever . Trait anger scores of high school students have been measured as 23.24±5.72; anger in 15.4±3.78; anger out as 17.70±4.55; and anger control as 19.39±4.53 (Albayrak & Kutlu, 2009).

In a study of university students the following scores were found: trait anger 24.18±4.6; anger in 18.56±3.7; anger out 16.38±3.4; and anger control 20.20±3.6 (Sosyal et al., 2009).

The trait anger scores of high school graduated soccer players were noted as 21.53±5.36, whereas those of university graduated players were 19.94±5.86. Anger outscores were recorded as 14.14±3.57 and 15.68±3.85 respectively. These results suggest that, as education level increases, anger control scores also increase, whereas trait anger scores decrease (Yıldız et al. 2009).

The present study extends the work of Winterowd and Edwards (2002) by comparing male collegiate athletes in contact sports with those in noncontact sports. The same measures of anger were used to explore how the type of sport might impact upon the variables of interest, rather than exploring whether or not men participate in collegiate sports.

These results (mean=23.11 out of 40 for constant anger level of athletes), show that they experience a medium level of constant anger. The highest correlation of their constant anger level occurs when anger is externalized easily; internal anger control, external anger control and the anger control of women is lower; the constant anger and state of anger score increases when the success of athletes increases.

References

Albayrak, B., & Kutlu, Y. (2009). Anger expression and related factors in adolescents. M.U. Nursing Science and Art E-Journal, 2(3), 57-69.

Atay, İ.M., Gonen Aydm, C., Çetin, C., & Gündoğar, D. (2011). Milli yüzücü ve taekwondocularında öfke kontrolü, stresle baş etme yöntemleri ve benlik algısı, 47. Ulusal Psikatri Kongresi.

Balkaya, F. (2001). Öfke: Temel boyutlar nedenleri ve sonuçları. Türk Psikoloji Yazıları, 4 (7), 21-45.

Deffenbacher, J. L. (1996). Cognitive-behavioral approaches to anger reduction. In K.S. Dobson, K.D. Craig et al. (Eds). Advances in cognitive-behavioral therapy, 2, 31-62.

Kulaksızoğlu, A. (2000). Ergenlik psikolojisi (3. Basım). İstanbul: Remzi Kitabevi.

Kurt, C., Çatıkkaş, F., Kurt Ömürli, İ., & Atalag, O. (2012). Comparison of gaziness, trait anger-anger expression style, self-esteem attributes with different playing position in soccer. Journal of Physical Education and Sport (JEPS). 12 (1), 39-43.

Maxwell, J.P. (2004). Anger rumination: an antecedent of athlete aggression? Psychology of Sports and Exercise, 5, 279-289.

Özer, A.K. (1994). Öfke, kaygı ve depresyon eğilimlerinin bilgisel alt yapısıyla ilgili bir çalışma. Türk Psikolojisi Dergisi, 9 (31), 15-25.

Ruiz, M. C., & Hanin, Y. L. (2011). Perceived impact of anger on performance of skilled karate athletes. Psychology of Sports and Exercise 12, 242-249.

Ruiz, M. C., & Hanin, Y. L. (2004). Idiosyncratic description of anger states in skilled Spanish karate athletes: An application of the IZOF model. Revista de Psicologia a del Deporte, 13, 75-93.

Sosyal, Ş.A., Can, H., & Kılıç, M.K. (2009). The analysis of the relationship between type-A behavior pattern and expression of anger among university students and its comprison in terms of sex. Klinik Psikiyatri, 12,61-67.

Spieberger, C.D., Jacobs, G.A., Russell, S., & Crane, R.S. (1983). Assessment of anger: The state-trait anger scale. In: JN Butler, CD. Spieberger, eds. Advances in Personality Assessment, Vol 2. Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.

Spieberger, C. D. (1999). State-Trait Anger Expression Inventory-2, Professional Manual, Psychological Assessment Resources, Inc., Lutz, FL, pp. 1-7.

Terry, P. C., & Slade, A. (1995). Discriminant effectiveness of psychological state measures in predicting performance outcome in karate competition. Perceptual and Motor Skills, 81, 275–286.

Winterowd, C., & Edwards, S. (2002). Anger and aggression in male athletes and non-athletes. Poster session presented at the annual meeting of the American Psychological Association.

Yıldız, M. (2009). The investigation of personality type and trait anger-types of expression of soccer players who play in amateur and youth soccer leagues. Autürk University Journal of Physical Education and Sport Sciences,11(3),15-27.