Original Article

How does parental motivational climate differentiate athletic experience?

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Abstract:

The purpose of this study was to examine if parental influence (father and mother), differentiate athletes' opinion according: (a) to the type of sport that they are involved, (b) to their competition experience, and/or (c) to their sport division. The instrument that was used was the Greek version of the "Parent-Initiated Motivational Climate Questionnaire-2" (PIMCQ-2) which includes 36 questions (18 for each parent). The participants were 259 Greek athletes (148 men and 111 women), from five different sports (volleyball, track and field, basketball, swimming and football). Their ages ranged from 14 to 25 ($M=14.92$, $SD=1.55$). Results supported the good psychometric properties of the assessment tool. Additionally, the results indicated that type of sport, sport division, and competition experience differentiated by the parents' influence. In conclusion, this research emphasizes the importance and significance of parental involvement/motivation in Greek athletic reality.

Key words: learning/enjoyment, motivation, parental involvement, success without effort, worry.

Introduction

In order to examine motivation and its processes in sport we have to take into account the achievement goal theory (Nicholls, 1984; Nicholls, 1989; Dweck, 1986; Duda, 1992). The crux of the theory is that individuals engage in achievement contexts in order to demonstrate competence. Competence leads to goal perspective, and as Nicholls (1989) has proposed, two goal perspectives have been identified and to operate in achievement contexts such as sport, task orientation and ego orientation. The individual who is high in task orientation uses self-referenced criteria to define success and perceives competence as improvement. The major focus of this person places his focus on learning something new, achieving personal progress, or meeting the demands of the task. In contrast, the individual who is high in ego orientation focuses to use normative or other-referenced criteria to define success and feels competent when he/she has demonstrated superior ability. The major focus of this person is to outperform others (White, Kavussanu, Tank, & Wingate, 2004).

In sports, individuals identified task orientation as the belief that hard work and cooperation with peers lead to success. On the contrary, ego orientation is determined by external factors (i.e., money, transfer, e.t.c.) possessing high levels of ability, and using strategies such as cheating and trying to impress the coach (Duda & White, 1992; Newton & Duda, 1993; White & Zellner, 1996).

Significant others (i.e., parents, coaches) are assumed to "pass" their achievement perspectives to children through their interaction with them, and their reward systems (Ames & Archer, 1987; Ames, 1992; Brustad, 1992). Parents are the most important factor that influences young people's lives in every aspect. Child is influenced constantly by family member(s).

Horn and Horn (2007), in their research indicated that parents' belief and value systems (e.g., their beliefs, attitudes, e.t.c.) determine their behaviors toward their child. These behaviors then influence the child's belief and value systems, which determine the child's behavior. They identified that parents are significant providers of any information on performance. Children's beliefs about themselves as competent and socially acceptable, is directly related to their perception of how their parents will counter to success or failure (Eccles & Harold, 1991). That's why parents are also significant in terms of young people's achievement activities (Heyman & Dweck, 1998).

Harter (1981) in his research mentioned that parents play an important role in their children's development, both in the academic domain (Bois, Sarrazin, Brustad, Trouilloud, & Cury, 2005) and in the sport domain (Horn & Horn, 2007). Parents can influence their children's participation in physical activity through a variety of mechanisms. These include direct modelling of physical activity, providing resources to perform physical activity, establishing or eliminating barriers to physical activity, and positively reinforcing children for participation in physical activity (White, Duda, & Hart, 1992; Taylor, Baranowski & Sallis, 1994; Kimiecik, Horn, & Shurin, 1996; Mota & Queiros, 1996). On sport content, parents influence athletes' reactions upon their

sports experience. Young athletes mentioned that their parents are being considered as important paradigms in their athletic/sport life (DiLorenzo, Stucky-Ropp, Vander Wal, & Gotham, 1998; Bloom, 1985).

Parents are one of the three social environments factors that influence the development of athletes. Csikszentmihalyi, Rathunde and Whalen, (1993), Cote (1999), and Soberlack (2001) highlighted the major influence of the family at the different stages of children's development in science, art and sports. They supported that the role of parents changes from the sampling through to the investment years. During the sampling years parents have a direct involvement in their child's sporting activities, which consists mainly of coaching and playing/training with their child. The direct involvement becomes indirect, when the child moves from the sampling to the investment years. The role of parents now, consists mainly of being a spectator at games and providing opportunities at home for their child physical development, such as by supplying a weight room.

Except from the extent of parental involvement in youth sport, Harwood and Swain (2001) reported that the nature of that involvement can have undeniable motivational association with youth athletes. In their research, they highlighted instances of parental feedback that lead children to believe that outcome of their game/match was of great importance (e.g., "beating an opponent was important), and highlighted instances where parents encouraged, recognized and reinforced self-referenced performance criteria, (e.g., "My parents gave me encouragement). Harwood and Swain's findings present interesting evidence on the effects of ongoing exposure to different types of feedback in the development and activation of achievement goals in youth sport settings. This is important because, as noted by Horn and Horn (2007), few studies have been conducted to examine the effects of parental feedback on young athletes. Gould, Lauer, Rolo, Jannes, and Pennisi in 2006, and in 2008, acknowledged that family behavior influences motivational aspects and other crucial psychological variables for appropriate children's sport involvement. As a result, children's motivation to participate in sport is a key consideration for researchers, coaches and parents (Keegan, Harwood, Spray, & Lavalley, 2009).

Parents' influence is perceived to play a direct role on children's achievement motivation and goal orientations (Nicholls, 1989; Soberlack, 2001). Research (Roberts, 2001; White, 1998) has investigated perceived situational goal structure initiated by parents when children learn and perform physical skills. The use of the Parent-Initiated Motivational Climate Questionnaire-2 (PIMCQ-2; White, 1998) identified that individuals are either task and/or ego oriented. In addition, it was determined that individuals high in task orientation perceived that both their parents emphasized a climate that focused on learning and enjoyment, and perceived that success is achieved through the demonstration of low levels of effort (White, 1998). In contrast, athletes high in ego orientation perceived their parents to emphasize a worry conductive climate where success was achieved with low levels of effort (Heyman & Dweck, 1998; White, 1998).

A study on female volleyball players' perceptions indicated that the climate initiated by their parents that was addressed on "success without effort", it predicted ego orientation. In contrast, an individual's perception of a climate supported by parents that focused on learning/enjoyment, predicted task orientation (White & Duda, 1993). Results showed that there is a direct relationship between task and ego orientation and perceptions of the motivational climate initiated by parents (Roberts, 2001).

Scanlan and Lewthwaite (1984) mentioned that forced participation and fear of negative evaluation from parents, predicts children's high level of competitive state anxiety. Accordingly, parental pressure on participation has been negatively related to children's enjoyment on sport (White, 1996). Nowadays, an important aspect that influences and affects sport participation (often negatively) is the excessive parental presence and involvement in sport settings (i.e. interference in coaching and practice procedures) (Ommundsen & Vaglum, 1991; Welk, Wood, & Morss, 2003). Parents have different expectations, some may wish for their children to do well because they may have missed out on sport opportunities when they were younger, others may try to live through their children's lives and hope to gain glory and satisfaction from their children's success (Jowett & Timson-Katchis, 2005). It has been reported that some children with over-influential parents tend to participate in sport as a duty/obligation rather than for fun or enjoyment (Brower, 1979). Children that do participate in sport as a duty/obligation are the ones who are most at risk from dropping out of sport (Evans & Roberts, 1987).

Duda and Hall (2000) identified a need for further investigation to capture the effect of immediate environmental factors (e.g., coach and parental feedback) within a given situational achievement setting (i.e., a certain practice or competition) on athletes' goal involvement. Few studies have been conducted to address that need, and they have been descriptive in nature (e.g., Cervello et al., 2007; Gernigon, d'Arripe-Longueville, Delignières, & Ninot, 2004). In addition, limited researched has been conducted in the area of athletes' social influence and motivation in Greece.

As a result of that, the aim of the present study was to examine if the influence that athletes receive from their social environment and more specifically from their parents, vary in type of sport, in competition experience, and in sport division.

Methods

Sample and Procedure

Participants were 259 Greek athletes, 148 men (57.1%) and 111 women (42.9%), between the ages of 14 to 25 yrs. ($M=14.92$, $SD=1.55$) (Table 1).

Table 1. Participants' descriptive statistics.

Male			Female	
148 (57.1%)			111 (42.9%)	
Volleyball	Track & Field	Swimming	Basketball	Football
53 (20.5%)	77 (29.7%)	25 (9.7%)	60 (23.2%)	44 (17%)
Sport Division				
Children Athletes		Youth Athletes		Men & Women
90 (34.7%)		82 (31.7%)		87 (33.6%)
Competition Experience				
1-5 yrs.		6-8 yrs.		9-> yrs.
72 (35.3%)		51 (25%)		81 (39.7%)

Questionnaire

They completed the Parent-Initiated Motivational Climate-2 (PIMCQ-2) questionnaire (White, 1998), which was translated into Greek by Bebetos, Chatziandreu, Zetou, Antoniou, and Karamousalidis (2013). The instrument consisted of 36 items, 18 for mother and 18 for father, containing 3 subscales: "Learning/Enjoyment Climate" (i.e.is most satisfied when I learn something new), "Worry Conductive Climate" (i.e.makes me worried about failing), and "Success Without Effort Climate" (i.e.looks satisfied when I win without effort). A 5-point Likert type scale with 1=strongly disagree and 5=strongly agree, was used to record responses. Athletes were also asked to indicate their sex, age, type of sport, sport division and competition experience (Table 1).

Measurement Procedure

The method chosen to conduct the research was that of self-completed questionnaire. Researchers informed all subjects that their participation was completely voluntary and the individual responses would be held in strict confidence. Athletes completed their questionnaires under the supervision of the authors, in practice sessions before the warm-up period.

Statistical Analyses

Initially, descriptive statistics were performed. Additionally, univariate ANOVA analyses for sport, competition experience and sport division-related differences among the sample were performed.

Results

Internal Consistency

The alpha reliability coefficients for the 3 scales were: .88 for "Learning/Enjoyment Climate", .83 for "Worry Conductive Climate", and .81 "for Success without Effort Climate".

Sample Differences

Univariate analyses were conducted in order to find any possible sample differences on the factors of type of sport, competition experience and sport division. The analyses revealed statistical significant differences between the athletes only on the scale of "Learning/Enjoyment Climate", in all three factors. More specifically:

(a) For the factor of "Sport Division": ($F_{2,19}= 4.66$; $p< 0.01$). More specifically, the post hoc multiple comparisons Bonferonni test indicated the differences only between the 2nd group (Youth Boys/Girls) ($M=4.21$, $SD=.46$) and the 3rd group (Men/Women) ($M=3.68$, $SD=.56$).

(b) For the factor of "Sport Experience": ($F_{2,19}= 3.17$; $p< 0.01$). More specifically, the post hoc multiple comparisons Bonferonni test indicated the differences between: the 1st ($M=4.15$, $SD=.55$) (highest score), the 2nd ($M=3.92$, $SD=.56$) (intermediate score), and the 3rd ($M=2.81$, $SD=.67$) (lowest score).

(c) For the factor of "Sport": ($F_{4,19}= 2.98$; $p< 0.05$). More specifically, the post hoc multiple comparisons Bonferonni test indicated the differences only between the sport of "Volleyball" ($M=4.16$, $SD=.54$) and the sport of "Football" ($M=3.70$, $SD=.61$).

Discussions and conclusion

The aim of this study was to examine if parental influence (father and mother), differentiate athletes' opinion according: (a) to their type of sport that they are involved in, (b) to their competition experience, and/or (c) to their sport division.

Reliability analysis showed high scores in all three subscales of the questionnaire. Present results agree and support previous ones (White, 1998; Bebetos et al., 2013).

More specifically, results revealed differences between athletes, only on the scale of “Learning/Enjoyment Climate”, in all three factors: type of sport, competition experience and sport division. According to literature review (Gershgoren, Tenenbaum, Gershgoren, & Eklund, 2011) it is very important to underline that this specific scale is the only task oriented scale of the questionnaire. As they indicated, direct ego-oriented or task-oriented feedback mastery motivational climate, and (b) task-oriented feedback most likely can undermine performance. It has been noted that parents are very significant in affecting their children’s motivational climate (Duda, Cumming, & Balanguer, 2005; Harwood & Swain, 1998; Swain & Harwood, 1996).

Previous research supported the idea that youth athletes’ parents tend to initiate them in a more fun/joyful/learning experience sport environment (DiLorenzo et al., 1998; Csikszentmihalyi et al., 1993; Cote, 1999; White et al., 2004). As it was mentioned, the influence of parents’ behaviors did not only appear in motivational aspects (Brustad, Babkes, & Smith, 2001; Fredricks & Eccles, 2004), but often affect youths’ enjoyment of the sporting practice (Brustad, 1996; Scanlan & Lewthwaite, 1986). Sánchez-Miguel, Leo, Sánchez-Oliva, Amado and García-Calvo research in 2013, pointed out that when the parents considered that they pressed their children in the sport, the children’s level of amotivation was greater and their level of enjoyment was lower.

Additionally, it was indicated that as athletes grow older and the sport/competition level rises, their teams compete under more stressful and serious situations/conditions (national and/or international competition, academic molecules, National teams, money prices, etc.) were learning/enjoyment of the sport should have been integrated and is usually absent (Gould et al., 2006; 2008; Keegan et al., 2009). And, their parents’ perceptions and motives changes accordingly (Ames & Archer, 1987; Soberlack, 2001; White et al., 2004).

Results of the present study implies that parents’ directives affect their children’s motivation and embraces the assumption that they are the “significant others” in sport. Furthermore, researchers believe that this might also be the main reason that differentiated older and more experienced athletes with younger and less experienced ones.

Nevertheless, on the aspect of “sport”, athletes identified that their parents initiated a more joyful, educational and more fun and motivational climate on the sport of volleyball, than the sport of football. Zetou and Kasabalis (2006) highlighted that although volleyball is a difficult and demanding sport to learn, offers amusing and educational experiences to the all athletes of all ages and sex. Parents’ behaviors did not only influence the motivational aspects during competition (Bebetos et al., 2013; Christoforidis, Kalivas, Matsouka, Bebetos, & Kambas, 2010), but they often affect children’s enjoyment during practice-time (Bebetos, Konstantoulas, Bebetos, & Kouli, 2008; Fredricks & Eccles, 2004). Accordingly, studies indicated that if young athletes have positive/joyful experiences from their involvement in a sport, they will be motivated to continue participate in this particular sport, which is the most important factor within the sport domain (Brustad et al., 2001; Brustad, 1996; Scanlan & Lewthwaite, 1986).

In conclusion, having shed some light on the nature of this relationship between parents’ behavior and athletes’ perceptions, the results of this study may facilitate a better understanding of the differentiation among the nature of sports, and guide further research.

References

- Ames, C. (1992). Achievement goals, motivational climate, and motivational processes. In: Roberts GC, ed. *Motivation in Sport and Exercise* (pp. 161-176). Champaign, IL: Human Kinetics.
- Ames, C., & Archer, J. (1987). Mothers’ beliefs about the role of ability and effort in school learning. *Journal of Educational Psychology*, 79, 409-414.
- Bebetos, E., Konstantoulas, D., Bebetos, G., & Kouli, O. (2008). Moral Functioning among team handball players. *The Cyprus Journal of Sciences*, 6, 49-59.
- Bebetos, E., Chatziandreu, E., Zetou, E., Antoniou, P., & Karamousalidis, G. (2013). Validation of the “Parental Initiated Motivational Climate-2” questionnaire. A pilot study. *Exercise & Society*, 54, 70-76.
- Bloom, B.S. (Ed). 1985. *Developing talent in young people*. NY: Ballantine.
- Bois, J.E., Sarrazin, P.G., Brustad, R.J., Trouilloud, D.O., & Cury, F. (2005). Elementary schoolchildren’s perceived competence and physical activity involvement: The influence of parents’ role modelling behaviours and perceptions of their child’s competence. *Psychology of Sport and Exercise*, 6, 381-397.
- Brower, J.J. (1979). The professionalization of organized youth sport: Social psychological impacts and outcomes. *Annals of the American Academy of Political and Social Science*, 445, 39-46.
- Brustad, R.J. (1996). Parental and peer influence on children’s psychological development through sport. In FL. Smoll & RE. Smith (Eds.), *Children and youth in Sport - A Biopsychosocial Perspective* (pp.112-155). Washington: Brown & Benchmark.

- Brustad R, Babkes, M., & Smith, A. (2001). Youth in sport. Psychological considerations. In R. Singer, H. Hausenblas & Ch. Janelle (Eds.), *Handbook of Sport Psychology* (pp.604-635). New York: John Wiley & Sons.
- Cervello, E., Santos Rosa, F.J., Calvo, T.G., Jimenez, R., Iglesias, D., & Hernández, M. (2007). Young tennis players' competitive task involvement and performance: the role of goal orientations, contextual motivational climate, and coachinitiated motivational climate. *Journal of Applied Sport Psychology*, 19, 304-321.
- Christoforidis, Ch., Kalivas, V., Matsouka, O., Bebetos, E., & Kambas, A. (2010). Does gender affect anger and aggression in handball players? *The Cyprus Journal of Sciences*, 8, 3-11.
- Cote, J. (1999). The influence of the family in the development of talent in sports. *The Sports Psychologist*, 13, 395-417.
- Csikszentmihalyi, M., Rathunde, K., & Whalen, S. (1993). *Talented teenagers: The roots of success and failure*. NY: Cambridge University Press.
- DiLorenzo, T.M., Stucky-Ropp, R.C., Vander W.J.S., & Gotham, H.J. (1998). Determinants of exercise among children. II. A longitudinal analysis. *Preventative Medicine*, 27(3), 470-477.
- Duda, J.L. (1992). Motivation in sport settings: a goal perspective approach. In: Roberts GC, ed. *Motivation in Sport and Exercise* (pp.57-91). Champaign, IL: Human Kinetics.
- Duda, J.L., & Hall, H.K. (2000). Achievement goal theory in sport: recent extensions and future directions. In R. N. Singer, H. A. Hausenblas, & C. Janelle (Eds.), *Handbook of sport psychology* (2nd ed.). (pp. 417-443) New York: Wiley & Sons.
- Duda, J.L., & White, S.A. (1992). Goal orientation and beliefs about the causes of sport success among elite skiers. *Sport Psychologist*, 6, 335-345.
- Dweck, C., (1986). Motivational processes affecting learning. *American Psychologist*, 41, 1040-1048.
- Eccles, J.S., & Harold, R. (1991). Gender differences in sport involvement: Applying the Eccles expectancy-value model. *Journal of Applied Sport Psychology*, 3, 7-35.
- Evans, J., & Roberts, G.C. (1987). Physical competence and the development of children's peer relations. *Quest*, 39, 23-35.
- Fredricks, J.A., & Eccles, J.S. (2004). Parental influences on youth involvement in sports. In M.R. Weiss (Ed.), *Developmental sport and exercise psychology: A lifespan perspective* (pp.144-164). Morgantown, WV: Fitness Information Technology.
- Gershgoren, L., Tenenbaum, G., Gershgoren, A., & Eklund, C.R. (2011). The effect of parental feedback on young athletes' perceived motivational climate, goal involvement, goal orientation, and performance. *Psychology of Sport and Exercise*, 12, 481-489.
- Gernigon, C., d'Arripe-Longueville, F., Delignières, D., & Ninot, G. (2004). A dynamical systems perspective on goal involvement states in sport. *Journal of Sport & Exercise Psychology*, 26, 572-596.
- Gould, D., & Petlichkoff, L. (1988). Participation motivation and attrition in young athletes. In Smoll, Frank L.; Magill, Richard A.; Ash, Michael J. *Children in sport*, 3rd edition (pp.161-179). Champaign, Ill.: Human Kinetics Books.
- Gould D, Lauer, L., Rolo, C., Jannes, C., & Pennisi, N. (2006). Understanding the role parents play in tennis success: A national survey of junior tennis coaches. *British Journal of Sport Medicine*, 40, 632-636.
- Gould D, Lauer, L., Rolo, C., Jannes, C., & Pennisi, N. (2008). The role of parents in tennis success: Focus group interviews with junior coaches. *The Sport Psychologist*, 22, 18-37.
- Harter, S. (1981). A model of intrinsic mastery motivation in children: Individual differences and developmental change. In WA. Collins (Ed). *Minnesota Symposium on Child Psychology* (Vol. 14) (pp.215-255). Hillsdale, NJ: Erlbaum.
- Harwood, C.G., & Swain, A.B.J. (1998). Antecedents of pre-competition achievement goals in elite junior tennis players. *Journal of Sports Sciences*, 16, 357-371.
- Harwood, C.G., & Swain, A.B.J. (2001). The development and activation of achievement goals in tennis: I. Understanding the underlying factors. *The Sport Psychologist*, 15, 319-341.
- Heyman, G.D. & Dweck, C.S. (1998). Children's thinking about traits: Implications for judgements of the self and others. *Child Development*, 69, 391-403.
- Horn, T. S., & Horn, J. L. (2007). Family influences on children's sport and physical activity participation, behavior, and psychosocial responses. In G. Tenenbaum & R.C. Eklund (Eds.), *Handbook of sport psychology* (pp.685-403). Champaign, IL: Human Kinetics.
- Jowett, S., & Timson-Katchis, M. (2005). Social networks in the sport context: The influences of parents on the coach-athlete relationship. *The Sport Psychologist*, 19, 267-289.
- Keegan, R. J., Harwood, C. G., Spray, C. M., & and Lavallee, D. E. (2009). A qualitative investigation exploring the motivational climate in early career sports participants: Coach, parent and peer influences on sport motivation. *Psychology of Sport and Exercise*, 10, 361-372.

- Kimiecik, L.C., Horn, T.S., & Shurin, C.S. (1996). Relationship among children's beliefs, perceptions of their parents' beliefs, and moderate-to-vigorous physical activity. *Research Quarterly for Exercise and Sport*, 67, 324-336.
- Mota, J., & Queiros, P. (1996). *Children's behaviour. Physical activity regarding parents' perception vs. children's activity*. *International Review for the Sociology of Sport*, 31(2), 173-183.
- Newton, M., & Duda, J.L. (1993). Elite adolescent athletes' achievement goals and beliefs concerning success in tennis. *Journal of Sport and Exercise Psychology*, 15, 437-448.
- Nicholls, J.G. (1984). Achievement motivation: Conceptions of ability, subjective experience, task choice, and performance. *Psychological Review*, 91, 328-346.
- Nicholls, J.G. (1989). *The competitive ethos and democratic education*. Cambridge: Harvard University Press.
- Ommundsen, Y., & Vaglum, P. (1991). Soccer competition anxiety and enjoyment in young boy players. The influence of perceived competence and significant others' emotional involvement. *International Journal of Sport Psychology*, 22, 35-49.
- Roberts, G. C. (2001). Motivation in sport and exercise: conceptual constraints and convergence. In: Roberts G.C., ed. *Motivation in Sport and Exercise* (pp. 3-30). Champaign, IL: Human Kinetics.
- Sánchez-Miguel, P.A., Leo, F.M., Sánchez-Oliva, D., Amado, D., & García-Calvo, T. (2013). The Importance of Parents' Behavior in their Children's Enjoyment and Amotivation in Sports. *Journal of Human Kinetics*, 36, 169-177.
- Scanlan, T.K., & Lewthwaite, R. (1984). Social psychological aspects of competition for male youth sport participants: I. Predictors of competitive stress. *Journal of Sport Psychology*, 6, 208-226.
- Scanlan, T.K., & Lewthwaite, R. (1986). Social psychological aspects of competition for male youth sport participants: IV. Predictors of performance outcomes. *Journal of Sport Psychology*, 6, 422-429.
- Soberlack, G. (2001). A retrospective analysis of the development and motivation of professional ice hockey players. Unpublished master's thesis, Queen's University, Kingston, Ontario, Canada.
- Swain, A.B.J., & Harwood, C.G. (1996). Antecedents of state goals in age-group swimmers: an interactionist perspective. *Journal of Sports Sciences*, 14, 111-124.
- Taylor, W.C., Baranowski, T., & Sallis, J.F. (1994). Family determinants of childhood physical activity: a social-cognitive model. In: Dishman R.K., ed. *Advances in Exercise Adherence* (pp. 319-342). Champaign, IL: Human Kinetics.
- Welk, G.J., Wood, K., & Morss, G. (2003). Parental influence on physical activity in children: An exploration of potential mechanisms. *Pediatric Exercise Science*, 15, 19-33.
- White, S.A., Duda J.L., & Hart, S. (1992). An exploratory examination of the parent-initiated motivational climate questionnaire. *Perceptual and Motor Skills*, 75, 875-880.
- White, S.A., & Duda J.L. (1993). Dimensions of goals and beliefs among athletes with physical disabilities. *Adaptive Physical Activity Quarterly*, 10, 49-58.
- White, S.A. (1996). Goal orientation and perceptions of the motivational climate initiated by parents. *Pediatric Exercise Science*, 8, 122-129.
- White, S.A., & Zellner, S. (1996). The relationship between goal orientation, beliefs about the causes of sport success, and trait anxiety among high school, intercollegiate, and recreational sport participants. *Sport Psychologist*, 10, 58-72.
- White, S.A. (1998). Adolescent goal profiles, perceptions of the parent-initiated motivational climate and competitive trait anxiety. *Sport Psychologist*, 12, 16-32.
- White, S.A., Kavussanu, M., Tank, K.M., & Wingate, J.M. (2004). Perceived parental beliefs about the causes of success in sport: relationship to athletes' achievement goals and personal beliefs. *Scandinavian Journal of Medicine Science in Sports*, 14, 57-66.
- Zetou, E., & Kasabalis, A. (2006). *Volleyball*; Athens: Telethrio Ed. (In Greek).