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The Relevance of Non-Athletic Transitions in the Development of the Athletic Career

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Key Words: career transitions, young athlete, non-athletic transitions, psychosocial development, educational career

INTRODUCTION

Although research on career transitions in sports has generally focussed on transitions inherent to the development of the athletic career (e.g., initiation into organized sport, first team selection, career end), athletes also need to cope with transitions occurring outside of the realm of sports. Recently, the need has therefore been underlined for sports psychologists to broaden their view on career transitions so to include those non-athletic transitions which may impact, or which themselves be affected by, athletes' athletic careers (Ewing, 1998; Wylleman, De Knop, & Sillen, 1998). These non-athletic transitions include, among others, the transitions occurring in athletes' psycho-social development, or in their scholastic/academic career. The relevance of these non-athletic transitions has been shown to be relevant to young and adolecent athletes--more particulalry as these youngsters are confronted with a variety of, sometimes strongly related, transitions, occurring within a relative short period of life. The purpose of this presentation is twofold. First, the relevance of two types of non-athletic transitions to young athletes' involvement in competitive sport will be highlighted. Second, future needs in sport psychological research on transitions in sports will be described, relevant to research, as well as, to the development of counseling programs for sports careers.

TWO TYPES OF NON-ATHLETIC TRANSITIONS

Two major types of transitions have been related to young athletes' involvement in competitive sport, namely, the transitions within their psychosocial development (e.g., Hellstedt, 1995), and the transitions in athletes' academic career (e.g., Petitpas, Champagne, Chartrand, Danish, & Murphy, 1997).

Transitions in Athletes' Psychosocial Development

Research into the development of the career of talented individuals revealed a relation between the occurrence of specific phases in the athletic career and the role and influence of the psychosocial setting in which athletes are nested (e.g., Bloom, 1985; Régnier, Salmela, & Russell, 1993). This setting includes essentially athletes' relationships with their parents and coach, as well as with their siblings, and peers. The relation between an athlete's psycho-social and athletic development has been approached on different levels. In a first line of research the the development and the quality of the interpersonal relationships constituting the psycho-social setting in which athletes live was investigated. This revealed, among others, that talented athletes' level of athletic achievement was linked to the quality of the athlete-father relationship (Wylleman, Vanden Auweele, De Knop, Sloore, & De Martelaer, 1995). In a second approach, a more global perspective upon this psycho-social setting was taken by examining the global network in which the athlete is nested, and more particularly the family context. The developmental model of the athlete family formulated by Hellstedt (1995) is based on the proposition that a family not only undergoes a constantly changing developmental process, but that it should cope succesfully with different major transitional tasks in order to proceed developmentally. As an interacting social system it is hypothesized that symptom formation in a member of the family is connected to developmental or structural problems in the family. So, in order for athletes to progress and cope with the different transitions in, for example, their athletic or academic career, they need to be incapsulated in a family which copes succesfully with its own developmental changes and transitions. Taking the demands of athletic competition and training into account, Hellstedt (1995) argued that unique circumstances in the athlete family may lead to deviations in its development from the normal life cycle. A transition particular to young athletes' psychosocial development is, for example, youngsters' striving toward more autonomy from

their parents, by way of, among others, developing their own individual lifestyle, and by way of identifying their own place within their psychosocial environment (Dusek, 1987). This transition may, for example, impact the way in which parents may evaluate the athlete's need for support (e.g., logistic, financial), as they experience their son or daughter to "grow away" from them, in favor of, among others, their peers or the coach.

Transitions in Athletes' Educational Career

A second type of non-athletic transitions essential to athletes relates to their scholastic and academic development. The increased importance awarded to the optimal development of talented athletes, as well as the concurrent occurrence of transitions in athletes' educational and athletic setting (Wylleman et al., 1998) has brought the specificity of the situation of student-athletes to the forefront. Student-athletes need not only to cope with the transitions in their athletic career, but also with the basic transitions from secondary education to higher education level, as well as with the transitions inherent to each level of education. These transitions include at secondary level, for example, teacher-pupil relationships, choice of subject of study, academic achievements, intra-class relationships, a possible delayed college decision; at higher education level they relate to adjusting to campus life, selecting a subject of study or a major, making the college team, preparing for a post-university career. These transitions require student-athletes to adjust to, and cope with challenges and changes occuring in the combination of academics and athletics. Concurently, student-athletes are confronted with the duality of their situation. Possible conflict between the role of student and athlete may occur, or may be imposed by the athlete's surrounding who feels that the student-athlete should "choose" between one or the other (e.g., coaches may feel that an athlete cannnot fully concetrate and be motivated for high-level sport if involved in academic study). Causes for possible conflict between both roles are related to the need for student-athletes to excell in two domains, deemed by society at large as important, during one and the same period of life (Wylleman & De Knop, 1997). This situation may induce time-management problems, restricted development of relationships, accruing pressure and de-motivation to perform at both scholastic/academic and athletic level. In-house psychological services at school and university-level should be aimed at providing primary prevention to student-athletes, as well as offer them support in developing their career and life skills so to cope as best as possible with the transitions occurring at academic, athletic, and psycho-social level. While this may include optimizing student-athletes' study, interpersonal communication or goal-setting skills, the support provided by student-athletes' psychological network should alleviate the occurrence of problems related to, for example, their living environment, a possible indentity foreclosure, injury and overtraining (e.g., Finch & Gould, 1996; Greenspan & Andersen, 1995).

TRANSITIONS IN SPORTS: FUTURE NEEDS

Although the athletic career seems to develop in a smooth and continuous way begining to end, it has been shown that athletes describe the development of their athletic career in terms of specific moments or situations inherent to, not only, their athetic career (Wylleman & De Knop, 1997), but also to their psychosocial and educational development. Future research into career transitional issues in sports should therefore also focus on those transitions which may affect the development of athletes' sports career. Taking into account the relevance of social support in the way individuals are able to cope with transitions in general (e.g., Schlossberg, 1981; Trickett & Buchanan, 1997), and in sport in particular (e.g., Murphy, 1995), sport psychologists could examine the influence and interactions of transitional issues from the perspective of athletes' psychosocial development. Second, sport psychologists should also include those significant others in athletes' support network when developing intervention strategies and counseling programs for athletes with regard to transitional issues. This is especially relevant as most available sports career assistance programs have been found to be strongly directed toward optimizing athletes' individual coping skills.

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Relationships in Youth Sports: Challenging Current Thinking and Defining New Lines of Research (Workshop)

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Key Words: youth sports, relationships, peers, parents, coaches, social skills, parent education, coach education, inner city, urban environment.

INTRODUCTION

Already more than a decade ago, youth's participation in (competitive) sport was defined as a social experience, including a cast of peers, coaches, parents, officials, spectators, and judges (Scanlan & Lewthwaite, 1988). But while different researchers have addressed the influence of, among others, peers (e.g., Weiss & Duncan, 1992) and adults (e.g., Smith, Smoll, & Smith, 1989) in shaping children's sport experiences, it is deemed that there is a growing need for sport psychologists to conduct research on relationships in youth sport along newly established lines of interest. The purpose of this workshop is threefold. First, an (abbreviated) overview of research on the significance and influence of relationships (including, athletes, peers, parents, and coaches) in youth sports will be provided. Second, some of the limitations in the currently available knowledge base on significance and content of relationships in youth sports will be formulated. Finally, recommendations will be provided on possible (new) lines of research, as well as on the need to establish (counseling and education) programs for enhancing the quality and influence of specific relationships in the youth sport setting.

SIGNIFICANCE OF PARENTS, COACHES, AND PEERS IN YOUTH SPORTS

Parents and Coaches

The significance of young athletes, coaches and parents' interactions has been reflected in expressions such as the "primary family of sport" (Scanlan, 1988), or the "athletic triangle" (Smith, Smoll, & Smith, 1989). Taking into account coaches' firmly entrenched central and influential position in competitive youth sport, their interpersonal behaviors have been shown to be crucial in determining, among others, youth's level of enjoyment, motivation, and performance (e.g., Smith & Smoll, 1996). Young athletes who perceived their parents to encourage and support them, and to be satisfied with their level of performance were found to perceive higher levels of enjoyment and perceived competence,while overzealousness, or parental stress were found to lead young athletes away from active involvement in competitive sport (e.g., Brustad, 1993; Martens, 1993). Finally, youth sport researchers' clinical experience showed communication problems, conflict, and sometimes power struggles in the parents-coach relationships could have a distinct influence on young athletes (e.g., Byrne, 1993; Hellstedt, 1995).

Peers

Taking into account that peer relationships have been shown to play a unique and pivotal role in the social development of children (Hartup, 1989), youth sport has been shown to be an ideal medium for the promotion and development of peer relationships and the acquisition of social skills (Weiss, 1995). There is evidence that peers play an important role in motivation, self-esteem, physical competence, and affect (Brustad, 1996).

LIMITATIONS IN THE KNOWLEDGE BASE

Parents and Coaches

Research into the interactions between young athletes, parents and coaches has been limited, in first instance, due to the conceptualization of relationship issues in sport psychological research which has generally insisted on an "adult-toward-young athlete" approach (e.g.,

coach-toward-athlete), thus largely neglecting the athlete's contributions to these relationships. Second, the content and significance of the athlete-parents and parents-coach relationships has largely remained undiscovered. Third, the majority of research included generally only one relationship, in this way ignoring the possible interaction effects of the three relationships in the athletic triangle. Finally, the interactions among athletes, parents, and coaches have generally been studied within the context of organized competitive sport, thus neglecting other settings relevant to youth's involvement in sport, such as, urban or inner city sports programs.

Peers

With regard to the significance of peers in youth sport, little is known about sport peer relationship processes such as the development of social competence (Weiss, Smith, & Theeboom, 1996). Moreover, the assumption seems to be made that by merely getting children to participate in sport they will develop peer relationships and acquire social skills. Furthermore, while it is also suggested that social skills may be important in the acquisition of physical skills (Chase & Dummer, 1992) research has not yet been able to provide insight into the causal relationship between physical and social competence. Finally, given making friends and being with friends are important aspects of the sport experience (Brustad, 1996), it is not clear whether physical prowess may be a means to an end—having positive peer relationships—rather than an end in and of itself.

RECOMMENDATIONS FOR RESEARCH AND PROGRAMS

Parents and Coaches

Future research should focus on knowing how young athletes themselves act and/or react toward their coach and parents, not only within each dyadic relationship, but also with regard to the psychological network which includes at least three relationships (athlete-coach, athlete-father/mother, father/mother-coach). Sport psychologists need also to be able to conceptualize and use a research methodology which captures the elements important to relationships within the setting of sport, that is, not only task- but also relationship- or socio-emtional interpersonal behaviors. Research also needs to focus upon the developmental aspects of relationships in youth sport (e.g., how does the athlete-coach relationship evolve?). Finally, sport psychologists should broaden the context in which young athletes interact with parents and coaches to include urban environments, thus focussing on, among others, the view of parents that sport plays in the lives of the children, the barriers to participation and research that will show the effect of participation in sport on the overall development of youth. Finally, a case wil be made for the integration of relationship issues in the development of parent and coach education programs.

Peers

It will be argued that social skills and positive peer relationships do not just happen, but need to be actively taught and second suggest how to assess and improve social skills appropriate and relevant to sport participation. Social skills can and need to be taught in the same way as physical skills and should be an integral part of any coaching program. Further, if positive peer relationships are to develop we need to provide opportunities for such interactions to prosper. Without an explicit focus, the belief that sport provides many social benefits may not be realized. Further, it seems reasonable to suggest that the basis for acquiring physical skills is establishing a sound relationship with the coach. As with peer relationships, the ability to form a positive working relationship with the coach rests largely on the social skills and social competence of the persons involved. In sum, the development of effective social skills may be the critical factor in many facets of the sport experience. Social skills training (SST) is an approach to teaching social skills to help promote positive social relations and is widely used in education (Erwin, 1993; Weiss & Duncan, 1992). Many SST programs use interventions that can typically be classified either as modeling (observational learning), shaping (operant conditioning), or coaching (direct instruction and rehearsal of specific skills). One particular program based on work by Nelson-Jones (1991) will be discussed.

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AFFECTIVE CHANGES DURING AND FOLLOWING ACUTE AEROBIC EXERCISE: FREELY SELECTED VERSUS IMPOSED LEVELS OF INTENSITY

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KEY WORDS: Mood, affect, imposed intensity, self-selected intensity, acute exercise

INTRODUCTION

The dose-response relationship between acute aerobic exercise and affective responses is emerging as a focal research issue in exercise psychology (Rejeski, 1994). From a theoretical standpoint, the demonstration of dose-response effects constitutes an important step in establishing a causal relationship between exercise and affect. Furthermore, examining the intensity and duration levels that are likely to optimize the conditions for positive affective changes has important implications for public health.

It has generally been assumed that the relationship between exercise intensity and affective responses approximates an "inverted U", with low intensities being ineffective and high intensities being experienced as aversive. However, the studies that have examined this relationship until now, mainly using state anxiety and mood profiles as measures of affect, have failed to find consistent support for such a pattern. A possible explanation for the inconsistencies is that the majority of dose-response studies approach the subject from a nomothetic perspective. In those cases, all participants are expected to respond similarly to a given dose of activity and any individual or situational variability is treated as error. An alternative point of view argues that studies should, instead, strive to account for variability in affective responses by examining the role of theoretically relevant mediator variables. In this framework, the purposes of the present study were to investigate (a) the effects of 3 levels of exercise intensity on affect, (b) the differences between assessments of affective states made during versus immediately following exercise, and (c) the role of self-selected versus imposed levels of exercise intensity.

METHOD AND PROCEDURE

Participants and Measures: A total of 79 moderately active female undergraduate students (age: 19-22 years) volunteered to participate and signed an informed consent form. Two measures were used for the assessment of affect. The Activation - Deactivation Adjective Check List (AD-ACL; Thayer, 1989) was used to measure pre-to-post-exercise affective changes. It is a 20-item inventory which was developed to measure Thayer's theoretical bipolar affective dimensions of Energetic Arousal (EA) and Tense Arousal (TA). EA ranges from Energy to Tiredness, whereas TA ranges from Tension to Calmness. The Feeling scale (FS; Hardy & Rejeski, 1989) was used to assess affective responses during exercise. The FS is a single-item, 11-point bipolar scale which was developed to assess affective valence (pleasure versus displeasure) in the context of exercise. Finally, Borg's (1998) 15-point Rating of Perceived Exertion (RPE) was used to assess the participants' perceived effort during exercise.
Procedure: The participants were randomly assigned to one of four exercise intensity groups: (a) 30-35% of age-predicted maximum heart rate reserve (HRR) (n=22), (b) 50-55% HRR (n=18), (c) 65-70% HRR (n=20), and (d) a self-selected intensity group (n=19). The target heart rates in the imposed-intensity groups ("low", "medium", "high") were 120-125, 140-145, and 160-165 beats/minute, respectively. All testing was carried out during morning hours (9:00 - 13:00), to control for possible time-of-day effects. Exercise was performed on a Monark cycle ergometer at 50 pedal revolutions per minute, following the rhythm of a metronome. In the imposed-intensity groups, to ensure that the participants exercised at the desired level, their heart rates were monitored telemetrically (Polar X-Trainer Plus, Polar,

Finland) and the work load was adjusted accordingly. The total duration of each exercise session was 20 minutes, with the final 5 minutes being a cool-down (against only 1 kg of resistance). The AD-ACL was completed immediately before and immediately following the exercise bout. The participants also responded to the FS and the RPE at the 5th, 10th, and 15th minute of the exercise bout, and for a fourth and final time immediately following exercise.

RESULTS

The analysis of variance (ANOVA) on heart rate data showed a highly significant Group by Time interaction, $F=7.97$, $p<.001$. At the 15th minute of exercise, the average heart rates were 123, 143, 164, and 139 beats/minute for the low, medium, high, and self-selected intensity groups, respectively. The heart rates for the three imposed-intensity groups were all significantly different from each other. Average RPEs at the same time point were 11.6, 11.3, 13.9, and 12.8, respectively.

The Group by Time interaction was also significant for the FS ratings, $F=2.52$, $p<.01$. In all groups, FS exhibited a steadily decreasing trend from the 5th to the 15th minute and a reversal towards increased scores from that time until immediately following exercise. The magnitude of the initial decrease was smallest in the low-intensity group and largest in the high-intensity group, but the difference among the groups was not statistically significant. In terms of absolute levels, however, the average FS rating in the high-intensity group was lower than those in both the low and the medium-intensity groups. In contrast to the initial decline, the magnitude of the subsequent rebound was significantly different among the groups, $F=4.7$, $p<.01$. The magnitude of the positive shift was significant only in the high and self-selected intensity groups, and it was larger in the high-intensity group than in any other group.

The analysis of the AD-ACL showed a significant Group by Time interaction for EA, $F=3.0$, $p<.05$. Examination of change patterns within each group showed that the low and medium-intensity groups exhibited non-significant increases, the self-selected intensity group exhibited a significant increase ($p<.05$), whereas the high-intensity group exhibited a non-significant decrease. At the end of the exercise bout, however, the groups did not differ from each other in EA scores.

To illustrate that these general patterns subsume substantial individual variability, which is potentially of psychological significance, an alternative analysis was also performed. Specifically, each group was divided in subgroups of participants that reported increases, decreases or no change in the FS and the EA scale of AD-ACL (Table 1). In none of the cases was the change pattern unitary. Variability in change scores for both the FS and the EA was highest in the high-intensity group.

TABLE 1. Percentages of Participants Reporting Increases, Decreases, or no Change in the Feeling Scale and Energetic Arousal in the Low, Medium, High, and Self-selected Intensity Groups

	FS (change from 5th to 15th min)				EA (pre-to-post change)			
	Low	Med	High	S-Sel	Low	Med	High	S-Sel
Increase (%)	13.6	16.7	30.0	5.3	63.5	62.7	36.8	63.2
- Range	1-1	1-2	1-4	1-1	1-9	1-6	1-6	1-8
- Mean	1.0	1.7	1.7	1.0	4.5	3.3	3.0	4.4
No Change (%)	50.0	27.8	20.0	42.1	0.0	12.5	21.1	15.8
Decrease (%)	36.3	55.6	50.0	52.6	36.4	25.0	42.1	21.1
- Range	1-3	1-4	1-6	1-3	1-9	1-10	1-11	1-4
- Mean	1.4	1.5	2.4	1.4	2.9	4.3	6.3	2.5

DISCUSSION

These findings indicate that exercise intensity appears to be an important mediator of the relationship between exercise and affective responses. In analyses at the group level, exercise performed at intensities up to 55% HRR was shown to be associated with small and non-significant declines in FS during exercise and increases in EA post-exercise (which were non-significant in the present study, due to lack of statistical power). Exercise at 65-70% HRR on the other hand, was shown to be associated with significant average drops in FS during exercise. Although this large initial decline was followed by an also significant and substantial rebound during the cool-down phase (possibly subserved by a dose-sensitive affective opponent process), the high-intensity group on average reported a decrease in EA post-exercise. Finally, the self-selected intensity group, despite an average exercise intensity which was comparable to that of the moderate-intensity group, appeared to enjoy additional benefits, namely a significant rebound in FS ratings during the cool down and a significant increase in EA post-exercise. This differential pattern of responses might be associated with an apparent relative dissociation of affect from perceived exertion during exercise. Specifically, while the correlations between FS and RPE in the moderate-intensity group were -.81 (5^{th} min), -.83 (10^{th} min), and -.70 (15^{th} min), the respective values in the self-selected intensity group were -.27, -.53, and -.49. The role of allowing participants to self-control their exercise intensity warrants further investigation (Morgan, 1997).

The comparison between in-task and post-exercise affective responses revealed that, compared to pre-post changes, responses during exercise appear to be more sensitive to intensity effects. These differences might be rapidly neutralized during a cool-down or immediately following the termination of the exercise stimulus. Yet, they might have profound motivational implications. Therefore, future research should systematically examine in-task affective responses

Finally, the examination of responses at the individual level demonstrated that beneath the average responses lies considerable individual variation, not only in the magnitude of changes, but, more importantly, in the direction of changes. The sources of this variability remain elusive, but there can be little doubt of their psychological importance. For instance, the finding that variability in change scores was highest in the high-intensity group might indicate a polarization due to individual differences, with some participants experiencing vigorous exercise as aversive and others thriving on it. The systematic dissection of this variability appears to be a fruitful avenue for future dose-response research.

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INDEX
Part 2

PSYCHOLOGY OF SPORT AND EXERCISE: ENHANCING THE QUALITY OF LIFE

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PROCEEDINGS PART 2

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