Effects of Coach and Parent Training on Performance Anxiety in Young Athletes: A Systemic Approach

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Abstract: Coaches and parents play a major role in determining the consequences of sport participation in young athletes. This study focuses on the assessment of a systemic, empirically inspired intervention directed at coaches and parents. Parallel workshops derived in part from achievement goal theory were presented to the coaches and parents of 9 to 15 year old boys and girls participating in community-based basketball programs, and their effects were compared with a matched control condition. Multilevel analyses revealed significant Time x Condition interactions on all three subscales of the Sport Anxiety Scale-2 (SAS-2) and on a total anxiety score. Athletes in the intervention condition decreased in cognitive and somatic anxiety scores on the SAS-2, whereas athletes in the control condition exhibited increases in cognitive and somatic anxiety. Results suggest the potential efficacy of brief, economical interventions in enhancing the psychosocial impact of the youth sport environment.

Introduction

From youth sports to the professional level of competition, athletes differ not only in their desire to succeed, but also in their fear of failure. Sport performance trait anxiety is a predisposition to appraise evaluative athletic situations as threatening and to respond with varying degrees of state anxiety. Such reactions may involve high levels of autonomic arousal, worry, and self-oriented cognitions that can disrupt attentional processes and other cognitive functions (Smith & Smoll, 2004; Smith, Smoll, & Wiechman, 1998). Children who are high in performance trait anxiety worry more frequently about making mistakes, not playing well, and losing than do their low-anxiety counterparts. They are also more concerned than low-anxious children about negative evaluations from coaches and parents, and they have stronger expectancies that failure will elicit criticism from these significant others (Brustad, 1988; Gould, Horn, & Spreeman, 1983; Rainey, Conklin, & Rainey, 1987).
Systematic research examining the consequences of performance anxiety on young athletes consistently has shown that excessive anxiety is associated with a variety of undesirable outcomes. High levels of anxiety contribute to children’s avoidance of sport, to athletic burnout, and to sport attrition. Moreover, competitive anxiety can have deleterious effects on performance, enjoyment of participation, and physical well-being. With respect to health-related effects, high trait anxiety associated with significant negative life events has been linked with increased incidence and severity of sport injuries (see Scanlan, Babkes, & Scanlan, 2005, and Smith, Smoll, & Passer, 2002, for reviews).

It is well known that coaches and parents can strongly influence the nature and quality of young athletes’ sport experiences. The goal priorities they set, the attitudes and values they transmit, and the nature of their interactions can markedly influence the effects of sport participation on children. Coaches play an especially influential role in the development and maintenance of performance anxiety, for they provide athletes with extensive evaluative feedback regarding their ability, performance, and potential in the form of response-contingent approval and disapproval. Critical or punitive feedback from coaches can evoke high levels of negative emotion in children who fear failure and disapproval, thereby contributing to a threatening athletic environment (Baker, Cote’, & Hawes, 2000; Passer, 1988; Scanlan, Stein, & Ravizza, 1991). In contrast with children who have negative interactions with their coaches, children who perceive their coaches as being supportive experience higher levels of sport enjoyment (Scanlan & Lewthwaite, 1986; Smoll, Smith, Barnett, & Everett, 1993). Parents can have comparable influences on all of the above outcomes of sport participation (Brustad, 2003; Brustad & Partridge, 2002), for they constitute an important element of the coach-parent-athlete social system known as the “athletic triangle” (Smith, Smoll, & Smith, 1989).

The harmful influence of performance anxiety invites the development of interventions designed to help coaches and parents reduce their potential contributions to young athletes’ anxiety. Controlled outcome studies with youth sport coaches have shown that relatively brief interventions can result in performance anxiety reduction over the course of a sport season. The interventions provide specific behavioral guidelines on how to create a more socially-supportive environment and reduce unnecessary competitive pressures to win. Smith, Smoll, and Barnett (1995) assessed the effects of a psychologically-oriented coaching workshop on performance trait anxiety in youth baseball players. Significant reductions on two global sport performance trait anxiety measures occurred in children who played for the trained coaches, but not in a control condition. Similar anxiety reductions were found in a more recent study using a multidimensional sport performance trait anxiety measure that assesses somatic anxiety, worry, and concentration disruption (Smith, Smoll, & Cumming, 2007).

On all three components of anxiety, young athletes who played for trained coaches exhibited significant reductions of anxiety from preseason to late season compared with youngsters who played for untrained coaches. In the latter study, a key goal was to promote a mastery-involving motivational climate (Ames, 1992; Dweck, 1999) in which success was defined in self-referenced terms of skill mastery, giving maximum effort, and enjoyment of the activity. The researchers also discouraged the establishment of an ego-involving climate in which success was defined in an other-referenced manner as outperforming and defeating others. A mastery-involving climate has been linked to lower anxiety and greater enjoyment in many studies in both educational and sport settings, and an ego-involving climate to higher levels of performance anxiety (Ames, 1992; Papaioannou & Kouli, 1999; Walling, Duda, & Chi, 1993; Yoo, 2003; Vazou, Ntoumanis, & Duda, 2006).
Prior to the present study, only one attempt has been made to implement a systemic motivational climate intervention involving both coaches and parents. Using a single-subject design, Harwood and Swain (2002) investigated the effects on three junior tennis players of a season-long intervention directed at coaches, parents, and the athletes themselves. Mastery-involving principles and behavioral guidelines were communicated to the parents and coaches. In addition, the athletes were taught a mastery-focused motivational approach, together with admonitions against ego-oriented goal striving for the purpose of social recognition. Compared with a matched control participant, the three athletes involved in the intervention reported increased self-efficacy as well as appraisals of lower threat and higher challenge in the competitive setting, suggesting lower anxiety. However, aspects of anxiety beyond threat appraisals, such as worry and physiological reactions were not assessed in this study.

Harwood and Swain’s (2002) research suggests that an intervention that promotes a mastery-involving climate initiated by both coaches and parents could have a significant positive effect on at least the cognitive components of athletes’ performance anxiety. Likewise, getting coaches and parents “on the same page” so that their behaviors are mutually supportive of one another’s efforts to reduce unnecessary pressures on athletes would be expected to enhance the impact of an intervention on athletes. The present article describes a larger-scale controlled outcome study than that carried out by Harwood and Swain. The intervention was systemic in nature, involving complementary psycho educational programs for coaches and parents designed to help them reduce competitive pressures on athletes by adopting mastery-involving climate principles and increasing the amount of social support they extended to athletes. Effects of the intervention on both cognitive and somatic elements of anxiety were assessed.

Method

Participants
The 151 participants in this study were 84 boys and 67 girls between the ages of 9 and 15 years who played in community-based basketball programs in a city in the Pacific Northwest. The mean age of the athletes was 11.6 years (SD = 1.73). The mean age of the 34 coaches (31 males and 3 females) was 42.4 years (SD = 8.84), and the mean number of years of basketball coaching experience was 6.6 (SD = 5.00).

To obtain the study sample, we utilized U.S. Census Bureau (2000) tract data to identify two youth sport programs that drew participants from households that were similar to one another in family income ($65,000 to $70,000) and educational attainment (64% to 69 % of adults in each area possessed a Bachelor’s degree or higher). The two programs were in separate community leagues and therefore did not compete against one another. The two programs had similar sex and age distributions across the 9 to 15 year age range, and the coaches did not differ on any of the background demographics. Both programs had two hour-long practices and one game per week, thereby equalizing exposure to the coaches.

To minimize the possibility that coaches and parents in the experimental condition might interact with and potentially share treatment information with those in the control group, we utilized a matched quasi-experimental design to assign the programs to experimental and control conditions (Campbell & Stanley, 1966). Given evidence that the coaches and athletes in the matched programs were sufficiently similar to one another to preclude systematic bias, we assigned the program with the most athletes registered at preseason to the intervention condition, on the expectation that not all of the parents would participate in the study. A total
of 100 of the 180 athletes (56%) registered for the basketball program at preseason had at least one member of their family attend the parent workshop. The intervention condition therefore comprised 8 boys and 9 girls teams, and the control condition contained 11 boys and 6 girls teams. Complete preseason and late-season data were collected from 82 youngsters in the intervention condition and 69 participants in the control condition. Multilevel linear modeling showed no significant group differences in the athletes’ cognitive and somatic anxiety at preseason. Teams in the two programs did not differ in mean won-lost percentages during the season in which the study was conducted.

For the experimental condition, only youngsters of parents who attended the intervention were included as participants. During the end-of-season assessment period, 18% of the participants in the intervention condition and 26% of those in the control condition missed three consecutive practices and therefore did not provide outcome data. This attrition/involvement difference is consistent with previous research showing appreciably lower attrition in athletes whose coaches participated in a psychoeducational intervention (Barnett, Smoll, & Smith, 1992). The untested youngsters did not differ significantly in preseason age or anxiety from those who provided complete data.

**Coach and Parent Intervention**

The coach and parent programs were designed to complement one another by communicating corresponding guidelines for reducing competitive pressures on athletes. Key principles and guidelines involved

(a) positive and supportive behaviors toward the athletes, and
(b) promotion of a mastery-involving motivational climate that deemphasized winning and competency-based social comparison in favor of defining success in terms of giving maximum effort, individual improvement, supporting and encouraging teammates, and enjoyment of the activity and team experience.

The two programs were administered during evening sessions prior to the beginning of the season.

**Coach program.** The coaches in the experimental condition participated in a 75-minute workshop entitled the Mastery Approach to Coaching (MAC) presented by the first author, who has extensive experience in conducting workshops for youth sport coaches and parents. The workshop featured leadership principles that were derived from foundational research on coaching behaviors and their effects on athletes (Curtis, Smith, & Smoll, 1979; Smith & Smoll, 1990; Smith, Smoll, & Curtis, 1978; Smith, Zane, Smoll, & Coppell, 1983; Smoll, Smith, Curtis, & Hunt, 1978) and from more recent research inspired by achievement goal theory (McArdle & Duda, 2002; Roberts, Treasure, & Kavussanu, 1997).

Accordingly, MAC guidelines focused on two major themes. First, strong emphasis was placed on the distinction between positive versus aversive control of behavior (Smoll & Smith, 2006). In a series of coaching *do’s* and *don’ts*, coaches were encouraged to increase four specific behaviors—positive reinforcement, mistake-contingent encouragement, corrective instruction given in a positive and encouraging fashion, and sound technical instruction. Coaches were urged to avoid nonreinforcement of positive behaviors and effort; to encourage athletes to learn from mistakes; and to avoid mistake-contingent punishment. They were also shown how to establish team rules early and reinforce compliance with them to avoid discipline problems. A summary of the behavioral guidelines is presented in Appendix A.
The second important theme in MAC was a conception of success as giving maximum effort and becoming the best one can be, rather than an emphasis on winning or outperforming others. Coaches were therefore encouraged to emphasize and reinforce effort as well as outcome; to help youngsters become the best they could be by giving individualized attention to all athletes and by setting personalized goals for improvement; to define success as maximizing one’s athletic potential; and to emphasize the importance of having fun and getting better as opposed to winning at all costs. Like the guidelines that foster positive coach-athlete relationships, these principles are designed to reduce fear of failure, to foster self-esteem enhancement by allowing athletes to take personal pride in effort and improvement, and to create a more enjoyable learning environment that increases intrinsic motivation for the activity. The principles are consistent with those designed by Ames (1992) and Epstein (1988) to create a mastery learning climate in the classroom.

During the experimental MAC workshop, a mastery-involving climate was explicitly described, its creation was strongly recommended, and a list of established salutary effects derived from research was presented. The presentation of MAC principles was augmented by modeling both desirable and undesirable methods of responding to specific situations (e.g., good performance and effort, athlete mistakes). Coaches were also invited to role play desired responses. To reinforce the didactic portions of the workshop, coaches were given a manual entitled Coaches Who Never Lose (Smoll & Smith, 2005a). The 28-page booklet highlights the advantages of a mastery-involving motivational climate and positive forms of behavior influence and provides behavioral guidelines for creating a supportive mastery climate. Coaches were also given self-monitoring forms containing nine items related to the behavioral guidelines. On the form, they were asked how often they engaged in the recommended behaviors in relevant situations. For example, coaches were asked, “When athletes gave good effort (regardless of the outcome), what percentage of the times did you respond with reinforcement?” They were asked to complete the forms immediately after the next 10 practices or games. The coaches reported completing the forms as requested, but many of them could not be retrieved at the end of the season, so they could not be used to assess the coaches’ degree of compliance.

**Parent program.** The parents in the experimental condition participated in a 60-minute workshop entitled the Mastery Approach to Parenting in Sports (MAPS) presented by the first author. The primary objective of the MAPS workshop was to assist parents in creating a mastery-involving motivational climate that promotes achievement in all areas of life, including sports. Similar to the MAC workshop, the major focus was on encouraging mastery involvement on the behalf of parents with the purpose of reducing performance anxiety in their children. This included an emphasis on reinforcement of effort as well as outcome; personalized goal setting; defining success as achieving one's potential; and emphasizing enjoyment and personal improvement as opposed to winning. An outline of topics covered in the MAPS workshop is presented in Appendix B.

To supplement the workshop, parents were given a manual entitled Sports and Your Child (Smoll & Smith, 2005b). The 50-page booklet was written to supplement the workshop and thus contains comprehensive treatments of MAPS topics, plus a 17-page section that addresses 25 questions about youth sports, including participation, psychological, and physical issues. The manual was intended to eliminate the need for parents to take notes; to facilitate their understanding of the information; and to give parents a tangible resource to refer to in the future. In addition, parents received a summary/reminder card entitled Behavior at Sport Events (Smoll & Smith, 2004). This front and back, 6-in. by 9-in. card contains specific do’s and don’ts guidelines for parents attending youth sport events. The main topics include recommended
behavior for pre-practice/game preparation; behavior during practices and games; when an official makes a "bad" call or a parent violates a rule of conduct; post-practice/game follow-up; after a win; and after a loss. The card was designed to highlight key mastery-oriented principles (emphasis on doing one’s best and giving maximum effort, the importance of having fun) and thus serve as a convenient refresher for parents. Parents who attended the experimental MAPS workshop were encouraged to read the booklet and to refer to the sport behavior card on a regular basis.

**Evaluation Procedures**

In addition to their parents’ signed consent, signed assent was obtained from the athletes prior to the collection of data. To assess the effects of the coach and parent intervention, the Sport Anxiety Scale-2 (SAS-2; Smith, Smoll, Cumming, & Grossbard, 2006) was used to measure sport performance trait anxiety. The SAS-2 consists of five-item subscales for Somatic Anxiety, Worry, and Concentration Disruption. Participants respond to items with the stem, “Before or while I compete in sports...” (e.g., “my body feels tense;” “I worry that I will not play well;” “it is hard for me to focus on what I am supposed to do.”). To be suitable for use with children, the items have a reading level below grade 4 (mean level = grade 2.3). Each item is answered on a 4-point scale ranging from not at all to very much. Scores on each subscale can range between 5 and 20, and a total score based on the sum of all items can range from 15 to 60. In this study’s sample, internal consistency alpha coefficients for the Somatic Anxiety, Worry, and Concentration Disruption subscales and total anxiety score ranged from .74 to .93 (preseason and late season administrations).

Trained research assistants administered the SAS-2 during team practices on two separate occasions. The first session occurred in the week preceding the administration of the MAC and MAPS workshops in the experimental condition, which was early in the preseason practice period. The second data collection session occurred approximately 12 weeks later during the final week of the competitive season as teams were preparing for postseason playoffs.

**Results**

Hierarchical linear modeling (also referred to as multilevel modeling) was employed to examine the main and interactive effects of time (preseason and late season) and condition (experimental and control) upon performance trait anxiety. This method of analysis permitted us to control for nesting of data within subjects (repeated measures) and teams (Bryk & Raudenbush, 1992; Singer & Willett, 2003). The statistical tests of the intervention’s effects on the anxiety scores are found in the cross-level Time x Conditions interactions, which tell us if different slopes and intercepts for the individual athletes occurred in the regression of anxiety scores on time as a function of intervention and control conditions.

Preliminary multilevel analyses with time, conditions, and sex as predictor variables indicated that athletes’ sex did not yield main or interaction effects for any of the three anxiety scales. Therefore, male and female teams were combined to increase the suitability of the data for multilevel analyses, whose power depends more on the number of level 2 (team) data points than on the number of individual athletes within teams (Singer & Willett, 2003).

Raw means and standard deviations for the measures of somatic and cognitive anxiety as a function of Time and Condition are presented in Table 1. In multilevel analyses, however, the major interest is in estimated means generated as a result of the hierarchical modeling procedures, together with the significance tests associated with them. Hereafter, our
presentation of results will focus on the estimated means produced by the hierarchical linear modeling analyses.

### Table 1
Means and Standard Deviations of Preseason and Late Season SAS-2 Total and Subscale Scores for Intervention and Control Conditions

<table>
<thead>
<tr>
<th>Variable</th>
<th>Preseason</th>
<th></th>
<th>Late Season</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td><strong>SAS-2 Total Score</strong></td>
<td>82</td>
<td>25.44</td>
<td>7.35</td>
<td>23.98</td>
</tr>
<tr>
<td>Experimental</td>
<td>69</td>
<td>24.12</td>
<td>6.52</td>
<td>27.01</td>
</tr>
<tr>
<td>Control</td>
<td>82</td>
<td>8.16</td>
<td>2.67</td>
<td>7.55</td>
</tr>
<tr>
<td>Control</td>
<td>69</td>
<td>7.48</td>
<td>2.23</td>
<td>8.62</td>
</tr>
<tr>
<td><strong>Somatic Anxiety</strong></td>
<td>82</td>
<td>9.77</td>
<td>3.57</td>
<td>8.99</td>
</tr>
<tr>
<td>Experimental</td>
<td>69</td>
<td>9.46</td>
<td>3.34</td>
<td>10.08</td>
</tr>
<tr>
<td>Control</td>
<td>82</td>
<td>7.51</td>
<td>2.58</td>
<td>7.44</td>
</tr>
<tr>
<td>Control</td>
<td>69</td>
<td>7.17</td>
<td>2.19</td>
<td>8.31</td>
</tr>
<tr>
<td><strong>Worry</strong></td>
<td>82</td>
<td>7.17</td>
<td>2.19</td>
<td>8.31</td>
</tr>
<tr>
<td>Experimental</td>
<td>69</td>
<td>7.17</td>
<td>2.19</td>
<td>8.31</td>
</tr>
<tr>
<td>Control</td>
<td>82</td>
<td>7.51</td>
<td>2.58</td>
<td>7.44</td>
</tr>
<tr>
<td>Control</td>
<td>69</td>
<td>7.48</td>
<td>2.23</td>
<td>8.62</td>
</tr>
</tbody>
</table>

As noted earlier, preliminary analyses revealed that the intervention and control groups did not differ in SAS-2 total score or on any of its subscales at the beginning of the season, substantiating overall preintervention group similarity on the assessed variables. Multilevel analyses were then carried out. As indicated in Table 2, a significant effect was found for Time for Concentration Disruption, indicating a tendency for this component of trait anxiety to increase from preseason to the second administration prior to league playoffs, when competitive pressures were higher.
**Table 2**
Main and Interactive Effects of Time and Condition upon Change in SAS-2 Scores: Parameter Estimates from Multilevel Linear Models

<table>
<thead>
<tr>
<th>Variable</th>
<th>Estimate</th>
<th>SE</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
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<tr>
<td><strong>SAS-2 Total Score</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>23.98</td>
<td>.86</td>
<td>27.74</td>
<td>.000</td>
</tr>
<tr>
<td>Condition</td>
<td>3.03</td>
<td>1.28</td>
<td>2.37</td>
<td>.019</td>
</tr>
<tr>
<td>Time</td>
<td>1.46</td>
<td>.91</td>
<td>1.61</td>
<td>.111</td>
</tr>
<tr>
<td>Time x Condition</td>
<td>-4.35</td>
<td>1.34</td>
<td>-3.24</td>
<td>.001</td>
</tr>
<tr>
<td><strong>Somatic Anxiety</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>7.55</td>
<td>.32</td>
<td>23.85</td>
<td>.000</td>
</tr>
<tr>
<td>Condition</td>
<td>1.06</td>
<td>.47</td>
<td>2.27</td>
<td>.024</td>
</tr>
<tr>
<td>Time</td>
<td>.61</td>
<td>.35</td>
<td>1.73</td>
<td>.086</td>
</tr>
<tr>
<td>Time x Condition</td>
<td>-1.75</td>
<td>.52</td>
<td>-3.35</td>
<td>.001</td>
</tr>
<tr>
<td><strong>Worry</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>7.44</td>
<td>.30</td>
<td>24.79</td>
<td>.000</td>
</tr>
<tr>
<td>Condition</td>
<td>.87</td>
<td>.44</td>
<td>1.96</td>
<td>.051</td>
</tr>
<tr>
<td>Time</td>
<td>.07</td>
<td>.35</td>
<td>.19</td>
<td>.85</td>
</tr>
<tr>
<td>Time x Condition</td>
<td>-1.20</td>
<td>.51</td>
<td>-2.34</td>
<td>.021</td>
</tr>
<tr>
<td><strong>Concentration Disruption</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>8.99</td>
<td>.39</td>
<td>22.93</td>
<td>.000</td>
</tr>
<tr>
<td>Condition</td>
<td>1.09</td>
<td>.58</td>
<td>1.88</td>
<td>.061</td>
</tr>
<tr>
<td>Time</td>
<td>.78</td>
<td>.37</td>
<td>2.12</td>
<td>.036</td>
</tr>
<tr>
<td>Time x Condition</td>
<td>-1.40</td>
<td>.55</td>
<td>-2.56</td>
<td>.011</td>
</tr>
</tbody>
</table>

Intervention effects were formally tested by the Time x Conditions interactions in Table 2. These interactions were significant for SAS-2 total score and for each of its subscales. The interactions involving the expected means generated by the multilevel analysis examining change in total anxiety are illustrated in Figure 1 and show a divergent pattern of change in the intervention and control groups. Athletes in the control condition exhibited higher scores at the end of the season than at the beginning, whereas athletes whose coaches and parents underwent the intervention exhibited decreases in anxiety scores from preseason to late season. Similar patterns of change were observed for each of the SAS-2 subscales.
Figure 1
Preseason and late season estimated means for the intervention (MAC+MAPS) and control conditions on the SAS-2 total score

Separate tests of time differences within each condition were performed using multilevel analyses of the nested athletes-within-teams data. Because significant increases in anxiety in the control condition were not predicted on an a priori basis in the control condition, significance was assessed using two-tailed tests. These analyses of time differences (late-season score minus preseason score) revealed that athletes in the control condition increased significantly in SAS-2 total score ($t = 2.68, p < .01$) and on the Somatic Anxiety ($t = 3.85, p < .001$) and Concentration Disruption ($t = 2.80, p < .01$) scales, but the increase on the Worry scale ($t = 1.40$) was not significant. One-tailed significance tests of the predicted decreases in anxiety within the intervention condition revealed significant effects for SAS-2 total score ($t = -3.24, p < .001$), and for the Somatic ($t = -3.35, p < .001$), Worry ($t = -2.57, p < .02$), and Concentration Disruption ($t = -2.34, p < .03$) scales.

Discussion

This study involved the development, implementation, and evaluation of a systemic coach-parent intervention that translated theoretical principles from achievement goal theory and previous research results on the determinants of performance anxiety into a practical approach to reducing anxiety. Results indicate that the intervention was successful in reducing anxiety in athletes participating in a youth basketball program. In the matched control condition, the participants increased significantly in performance anxiety from preseason to late season,
whereas the youngsters whose coaches and parents had undergone the intervention exhibited decreases in anxiety over the same period. The changes in both groups involved somatic and cognitive components of anxiety, adding to the results reported by Harwood and Swain (2002), who found decreases in threat appraisals prior to competition.

An encouraging feature of the results is that they were achieved with very brief educational workshops that contrasted sharply with the season-long intensive training carried out by Harwood and Swain (2002). We attribute the results of this study, which are consistent in its positive effects with other intervention studies involving coaches (e.g., Smith et al., 1995, 2007; Smith, Smoll, & Curtis, 1979; Smoll et al., 1993) to the highly focused nature of the content presented in the coach and parent workshops, which translated empirically-derived principles into specific and easily-learned guidelines. The number of principles was relatively small and primarily involved a focus on effort and individual development over outcome and instruction on how to provide a highly supportive environment for athletes. These principles were derived from previous research on determinants of anxiety, and their implementation by coaches and parents would appear to underlie the salutary effects on performance anxiety. Our results suggest that brief and economical intervention based on empirically-derived principles can have positive effects on the youth sport setting. Conceivably, such programs could be widely disseminated utilizing technological formats such as DVD, or even over the internet.

This study is best regarded as a preliminary demonstration of efficacy, for it leaves many questions unanswered, hopefully to be explored in future research. Because the intervention was a systemic one, we cannot specify the relative contributions of the coach and parent workshops to the obtained results. Approaching this important question would best be accomplished by a comparative four-group design involving coach training, parent training, this study’s combination of the two, and a control condition. Such a design would allow the uncoupling of coach and parent programs, and an assessment of their individual and interactive effects. Likewise, we do not know which guidelines communicated to coaches and parents had the strongest influences on anxiety reduction. A third limitation of this study was an absence of information on how the coaches and parents actually behaved in relation to the young athletes. An ambitious extension of this study would involve collecting process data in the form of periodic athlete reports and direct observation of coach and parent behaviors over the course of the season. Hopefully, future research will address these issues.

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References


Appendix A

Summary of Behavioral Guidelines for Youth Sport Coaches

Reacting to Good Plays and Athletes' Effort
• Do: Provide reinforcement. Do so immediately. Let the athletes know that you appreciate and value their efforts. Reinforce effort as much as you do results. Look for positive things, reinforce them, and you will see them increase. Remember, whether athletes show it or not, the positive things you say and do remain with them.
• Don't: Take their efforts for granted.

Reacting to Mistakes
• Do: Give encouragement immediately after mistakes. That's when the youngster needs your support the most. If you are sure the athlete knows how to correct the mistake, then encouragement alone is sufficient. When appropriate, give corrective instruction, but always do so in an encouraging manner. Do this by emphasizing not the bad things that just happened, but the good things that will happen if the athlete follows your instruction (the "why" of it). This will make the athlete positively self-motivated to correct the mistakes rather than negatively motivated to avoid failure and your disapproval.
• Don't: Punish when things are going wrong! Punishment isn't just yelling. It can be tone of voice, action, or any indication of disapproval. Athletes respond much better to a positive approach. Fear of failure is reduced if you work to reduce fear of punishment. Indications of displeasure should be limited to clear cases of lack of effort; but, even here, criticize the lack of effort rather than the athlete as a person.
• Don't: Give corrective instruction in a hostile, demeaning, or harsh manner. That is, avoid punitive instruction. This is more likely to increase frustration and create resentment than to improve performance. Don't let your good intentions in giving instruction be self-defeating.

Maintaining Order and Discipline
• Do: Maintain order by establishing clear expectations. Emphasize that during a game all members of the team are part of the activity, even those on the bench. Use reinforcement to strengthen team participation. In other words, try to prevent misbehaviors by using the positive approach to strengthen their opposites.
• Don't: Get into the position of having to constantly nag or threaten the athletes in order to prevent chaos. Don't be a drill sergeant. If an athlete refuses to cooperate, deprive him or her of something valued (i.e., participation). Don't use physical measures, such as running laps. If you establish clear behavioral guidelines early and work to build team spirit in achieving them, you can avoid having to repeatedly keep control. Remember, youngsters want clear guidelines and expectations, but they don't want to be regimented. Try to achieve a healthy balance.

Creating a Positive Learning Atmosphere
• Do: Give technical instruction. Establish your role as a caring and competent teacher. Try to structure participation as a learning experience in which you are going to help the athletes become the best they can be. Always give instruction in a positive fashion. Satisfy your athletes' desire to improve their skills. Give instruction in a clear, concise manner and, if possible, demonstrate how to do skills correctly.
• Do: Give encouragement. Encourage effort, don't demand results. Use it selectively so that it is meaningful. Be supportive without acting like a cheerleader.
• *Do:* Concentrate on the activity. Be "in the game" with the athletes. Set a good example for team unity.

• *Don't:* Give instruction or encouragement in a sarcastic or degrading manner. Make a point, then leave it. Don't let "encouragement" become irritating to the athletes.

*Note.* This material was excerpted from a manual entitled *Coaches Who Never Lose* (Smoll & Smith, 2005a).
Appendix B

Outline of Topics Covered in the MAPS Workshop

The Mastery Triangle
- A child-centered orientation that promotes cooperation among parents, coaches, and administrators

Youth Sport Objectives and Values
- Goals of youth sports from the perspectives of parents and young athletes
- Differences between developmental and professional models of sport

Achievement in Sports and in Life
- Defining success in terms of mastery versus ego orientations to achievement
- Effects of a mastery-oriented climate on youngsters’ personal, social, and athletic development
- Keeping sports in perspective relative to social and academic development, spiritual enrichment, and quality of family life

The Real Meaning of Winning
- A mastery-oriented philosophy of winning

Parent Roles and Responsibilities
- Challenges for parents relative to their youngsters' involvement in sports (sharing sons/daughters with coaches, accepting children's disappointments, giving children some time)

Combating Athletic Stress
- The nature and consequences of sport performance anxiety
- Reducing fear of failure and avoiding parent-induced stress

Parent Behavior at Sport Events
- Rules for parents' conduct
- Dealing with parents who do not conform with acceptable standards of behavior

Getting Along with Your Child’s Coach
- Establishing and maintaining open lines of communication

Youth Sport Issues and Challenges
- Question and answer session