

The Development of Psychological Talent in U.S. Olympic Champions

Final Grant Report *
Executive Summary

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Need for the Present Study

If the USOC is to sustain its competitive excellence in Olympic competition, much more must be known about talent development in U.S. athletes. Several large-scale studies (Bloom, 1985; Csikszentmihalyi, Rathunde, Whalen, & Wong, 1993) on talent development across a variety of domains (music, art, science, sport) show that helping individuals develop their abilities is not just a process of identifying talented people or providing them with financial support. To turn talent into actual achievements, talented individuals must develop specific psychological skills, orientations, and habits and have the opportunity to develop their mental and physical skills in supportive environments comprised of significant others who provide various types of support. However, few studies to date have been conducted on talent development in elite athletes, especially Olympic champions. A need, then, existed to better understand the psychological characteristics of Olympic champions and how they developed these talents.

Project Purpose

This study was designed to examine the process of psychological talent development in Olympic champions by first identifying the psychological talents of these outstanding performers and then determining what individuals/institutions, and strategies influenced the development of these talents. Particular emphasis was placed on identifying parenting and coaching practices perceived to have influenced psychological talent development, especially as they pertained to Bloom's (1985) three phases of the elite athlete's career.

How Was the Study Conducted?

Ten current or former U.S. Olympic champions with outstanding performances took part in in-depth interviews, as were one of their coaches (n = 10), and a parent, guardian, or significant other (n = 10). These athletes had competed in one or more Olympic Games and had an average of 2.4 Olympic Games each (range 1 to 4). They were chosen based on an analysis of Olympic Games performance records and participant availability. Between them, these athletes had won 32 Olympic medals (28 gold, 3 silver, and 1 bronze), with an average of 3.2 Olympic medals per participant (range 1 to 5). Questions focused on the psychological and emotional attributes of the athlete, the process by which these attributes developed, and the culture supporting his or her psychological talent development. A battery of psychological inventories (trait anxiety, hardiness, perfectionism, optimism, trait hope, sport motivation, task and ego goal orientation, psychological skills and strategies, coping) was also administered to each athlete to identify his or her psychological strengths.

All interviews were tape recorded, transcribed verbatim, and then content analyzed by three investigators. Specifically, each investigator studied tapes of the interviews and read and reread verbatim transcripts. Raw themes (quotes or paraphrased quotes representing a meaningful point or thought) were individually identified and consensually validated in 300 hours of group meetings with the three investigators present. Raw themes were then organized into patterns of like responses in the data (e.g., "confidence to try new things," "believed in self," "never doubted self"), and a summary label for the category was determined (self-confidence). Athlete, coach, and parent responses were summarized for each medal winner, and an integrated profile of each case was comprised.

Additionally, descriptive statistics were used to examine the quantitative data obtained from the battery of psychological inventories administered to the participating athletes. Psychological strengths and limitations were determined by examining the magnitude of the participant's own responses on the psychological instruments administered. In cases where elite athlete norms exist (e.g., TOPS), participant scores were compared to existing norms for elite athletes. Results were also compared with findings from other studies that assessed elite athletes.

Major Findings

Characteristics of Champions

After an extensive review of the literature, Williams and Krane (2001) identified a number of psychological characteristics of highly successful athletes, as well as the mental skills these athletes used to achieve optimal psychological states. Characteristics included self-regulation of arousal, high confidence, better concentration and focus, an in control but not forcing it attitude, positive imagery and self-talk, and high determination and commitment. Skills used to achieve peak psychological states included imagery, goal setting, thought control strategies, arousal management, well-developed competition plans, well-developed coping strategies, and pre-competitive mental preparation plans. The quantitative and qualitative results collected with these Olympic champions paralleled these results almost exactly. Specifically, as a group these Olympians were found to be characterized by:

- *The Ability to Focus*
- *Mental Toughness*
- *Hope/Goal Setting Ability*
- *Sport Intelligence*
- *Ability to Cope*
- *Competitiveness*
- *Confidence*
- *Coachability*
- *High Drive*
- *Intrinsic Motivation*
- *High Optimism*
- *Adaptive Perfectionism*
- *Automaticity: The Ability to Click into Automatic Performance*
- *Emotional Control: Ability to Relax and Activate*

What Strategies Were Used to Influence Psychological Talent Development

Results showed that many individuals and institutions were perceived to influence the development of psychological attributes in these outstanding performers. These included:

- the community
- family
- non-sport personnel (e.g., teachers, friends)
- the individual athlete him or herself
- sport environment/personnel (e.g., coaches, agents)
- the sport process itself

Moreover, modes of influence were both direct, like teaching or emphasizing certain psychological lessons, and indirect, involving modeling or unknowingly creating certain psychological environments.

These results supported the work of Bloom (1985) and Csikszentmihalyi and colleagues (1993) in showing that the psychological development of outstanding athletes takes place over a long-time period and is influenced by a variety of individuals and factors. This long-term process involves both the talented person as well as a strong support system.

Although the interview guide was organized around Bloom's (1985) three career phases of elite performer development, it became clear that all 10 athletes' experiences easily fit into these stages. Hence, in the first stage (the early years) the athlete developed a love for the sport, had a great deal of fun, received encouragement from significant others, was free to explore the activity, and achieved a good deal of success. Parents also instilled the value of hard work and doing this well during the early years. In the second phase (the precision phase) a master coach or teacher promoted long-term systematic skills learning in the talented individual. The focus was on technical mastery, technique, and excellence in skill development. Finally, in the third phase (the elite years) an individual continued to work with a master teacher (coach) and practiced many hours a day to turn training and technical skills into personalized performance excellence. During this phase there was a realization that the activity was significant in one's life.

The Role of Parents

Not surprisingly, parents and families were perceived to play a critical role in psychological talent development. They were found to provide financial, logistical, and social-emotional support. Specifically, they:

- were very committed to their child
- modeled an active lifestyle
- exposed their child to different sports
- transported their child
- attended games and practices
- provided considerable encouragement and support

While families clearly supported and encouraged participation, in most cases they exerted little pressure to win.

Most interesting were the findings that families emphasized an optimistic belief in the child's ability to succeed or "can do" attitude. This is consistent with research that has found that a higher rate of parental encouragement was correlated with perceived physical competence for children. Families also modeled hard work and discipline, a finding consistent with research showing that parents of highly successful individuals espoused or modeled values related to achievement, such as hard work, success, being active and persistence.

This optimistic achievement-oriented climate created by parents, then, helped develop the confidence and motivation these athletes needed for future success. At the same time parents emphasized the attitude, “if you are going to do it, do it right.” They also modeled a hard work ethic, held high (but reasonable) expectations and standards for their child, and emphasized a stick to it and follow-through on commitments attitude. These results are consistent with Bloom’s (1985) conclusion that the successful development of a talented individual requires the facilitation of disciplined involvement while avoiding excessive expectations. This is also consistent with Csikzentmihalyi et al’s (1993) complex family notion that these families are both integrated and differentiated. Integrated in that they were stable in their sense of support and consistency. Differentiated in that they encouraged their children to “individually” seek out new challenges and opportunities.

Finally, with current concerns on early sport specialization and excessive pressure to win, it is interesting that in the early phase of the athlete’s career, the majority of these parents did not have winning or the Olympic Games as an objective of participation. Instead, they focused on their child’s happiness, a balance of fun and development, and the general developmental benefits of participation. While there was some emphasis on winning and success, these were not the predominant objectives of participation. At the same time parents emphasized working hard, having a positive attitude, and discipline. Throughout the middle and elite phases of the athlete’s career, many parents also played an important role in helping to keep winning and success in perspective. The roles of the parents also changed over time (from leader to follower role over three phases) supporting the research of Cote (1999).

The Role of Coaches

Like parents, coaches were also found to be a primary influence on the athletes’ psychological development. They did this in a number of ways including:

- emphasizing certain things such as hard work and discipline or having fun
- having characteristics that facilitated athlete trust
- providing encouragement and support
- directly teaching or fostering mental skills and
- understanding these athletes

Looking across the interviews, it was also clear that the same coaching strategies were not appropriate for each athlete – different athletes required different things from their coaches at different points in their careers. This certainly emphasizes the importance of coaches reading athletes’ psychological needs and utilizing different approaches at different times and in different situations. Some evidence (Hanson & Gould, 1988) indicates, however, that many coaches are not skilled at reading their athletes’ psychological needs. A need exists to better understand this process.

Establishing a strong coach-athlete relationship was critical for these champions. This finding was reported as being especially important in the middle and elite years of the athlete’s career. Moreover, participants indicated that key factors in this relationship

involved coach credibility (elite status, knowledge), reciprocal trust and respect, understanding athlete needs and responding accordingly, and caring about the athlete as a person, not just a performer.

In term of Blooms' (1985) career phases, a win focus on the part of coaches did not emerge for most athletes until the middle years. Fun and development were stressed in the early years. High expectations and standards and hard work and discipline seemed to be especially important coaching practices in the last two phases. Lastly, it was interesting to note that many of the participants mentioned that early coaches did not "damage" the athlete psychologically, verifying the conclusion that youth coaching can have an important effect on the psychological development of elite competitors.

The importance of coaching psychology emerges from these findings. Coaches were reported to create motivational climates that "pushed" these champions in "good ways." As previously mentioned, they emphasized hard work and had high expectations and standards. It was also reported that the coaches played an important role in helping the athletes keep success in perspective. Finally, the coaches were very involved in teaching these athletes mental skills such as imagery, goal setting, and mental preparation. This, then, certainly emphasizes the importance of coaches of elite competitors being well versed in psychological skills training.

Dealing With Adversity and Costs of Talent Development

While not the major focus of this study, costs of talent development were noted, such as giving up aspects of a social life outside of sport or having difficulty separating one's sport and self-identity. This is consistent with Howe's (1999) conclusion that any intense effort to develop talent will have costs as well as benefits. In future studies, it would be interesting to explore the process of how athletes balance such costs and benefits over time.

It must also be emphasized that while the majority of factors identified were positive, the participants at times struggled and faced adversity. Adversity factors experienced by the athletes included such things as injury, training frustrations, performance disappointments, and two athletes in this study even experienced clinical issues. Hence, Olympic champions, while having some outstanding psychological characteristics and talents are not supermen or superwomen immune to common or even severe psychological roadblocks or issues. During the course of their career, all athletes will face minor difficulties and some will experience major psychological difficulties during their development. Appropriate resources must be focused on helping them deal with such difficulties.

Study Strengths and Limitations

This investigation had a number of strengths. First, a very elite group of athletes were studied. Seldom before have so many high level elite athletes been interviewed and surveyed. This was supplemented with interviews with significant others and coaches who knew them very well. This, triangulating findings across methods (surveys and interviews) and sources (athletes, coaches, significant others) was a strength. Interviewing the three sources also allowed us to gain three unique views of psychological characteristics and talent in Olympic champions. A third strength was the three-person consensual validation procedure employed. In addition, previous studies on psychological characteristics of athletes have used only one or two inventories. This study employed both an extensive battery of tests as well as qualitative interviews. Finally, a broad scope was taken to the study.

Like all investigations, this study had several limitations. First, only 10 athletes were surveyed and interviewed. While they were certainly unique in their performance accomplishments, their total number is small and no comparison group of less successful but elite athletes of comparable experience (and their significant others and coaches) were surveyed and interviewed. Similarly, elite athlete norms for most of the inventories were not available for comparison purposes. Third, only two minority athletes were included in the sample and only one participant would be considered “poor” growing up. Finally, because the data was collected in a retrospective fashion, results are subject to memory bias effects. These sample limits must be kept in mind when interpreting these findings. It should also be noted in interpreting the findings that most of the coaches were not directly involved with the athletes during the early phase of their careers. Results, therefore, could be biased by a lack of knowledge in this area.

Recommendations for Talent Development

This study, while exploratory, when combined with the other research in the area, has a number of implications for guiding practice. Clearly, for example, the psychological development of outstanding athletes takes place over a long-time period and is influenced by a variety of individuals and factors. This long-term process involves both the talented person and a strong support system. Short-term approaches to talent development will not suffice and systematic educational efforts for both coaches and parents are needed.

In addition to the above general recommendation for guiding practice, the present study has two particularly important implication areas: (1) psychological characteristic results implications and (2) talent development parenting practice implications.

Psychological Characteristics Implications

The psychological characteristic and motivation results of this study provided a good profile of the mental ingredients characterizing champion athletes. Before planning a mental skills training program, for example, coaches may think about their athletes relative to each of these components. The degree athletes possess each characteristic can be rated. Then, particular characteristics to be improved can be identified and psychological skills training programs developed.

Similarly, a number of National Governing Bodies, such as USA Swimming, U.S. Figure Skating and USA Tennis, have developed listings of psychological competencies that should be developed in athletes at certain points in their careers. The present results should be addressed in such psychological competency listings. Moreover, the psychological talent development strategies identified in this study provide important information on both factors affecting and strategies for developing these psychological characteristics.

The profile of champions may also be used as a recruiting tool. In identifying talent, coaches could rate athletes on each of these attributes and look for individuals who either currently demonstrate or have the potential to demonstrate many of them. However, it must be remembered that no one exact formula of mental skills is absolutely essential for athletic success. For example, one Olympic champion we interviewed in the present study did not use imagery at all in her career, while another gold medal winner relied heavily on imagery in his mental training. However, both employed the vast majority of mental skills identified in this study. Hence, coaches could use the champion's profile for identifying athletes characteristics and attributes for the purpose of understanding the athlete better. However, coaches should not worry if any one attribute or skill is not fully developed. It is also important to recognize that psychological attributes are only part of what is needed for athletic success. As the results of this study show, physical talent and endowments are critical considerations.

Talent Development Parenting Implications

These results have important implications for parenting athletes. First, although the popular media highlights some prominent examples of parents entering their child into sports for the purpose of developing them into an elite athlete (e.g., Tiger Woods, Venus Williams), this and other studies of youth sport participation and elite performers have demonstrated that that strategy is probably not the best approach to take. Rather, our results support the work of Bloom (1985) and Cote (1999) and show that most champion athletes did not start their sport careers with Olympic aspirations in mind. Instead, they were exposed to active lifestyles, numerous sports, and encouraged to participate for fun and developmental reasons. They found the right sport for their body type and mental make-up and only later after they fell in love with the activity did they develop elite sport aspirations. Moreover, once they developed Olympic dreams, parents and coaches provided the athletes with the support they needed to turn their dreams into reality. What is needed then are programs to expose large numbers of children to Olympic sports.

These programs should emphasize fun and fundamentals, and once young athletes exhibit talent, parents should be educated as to the most productive ways to foster that talent. Parents and coaches should also understand the best ways to facilitate psychological development at each stage of the athlete's career.

Given these results, we recommend that the USOC consider developing practical guides for coaches and parents aimed at developing athletic talent. Guides should focus around Bloom's (1985) stages of talent development and emphasize many of the guidelines uncovered in this study relative to fostering psychological talent. Especially important is the need to understand the support and encouragement necessary at the entry levels of sport. The importance of not pressuring athletes to win early in their careers, but to teach values such as hard work, optimism and a "can do" attitude seem paramount. Moreover, practical advice like that coming from the participants in this study should be emphasized.

Finally, this information should be conveyed in a number of forms. A written guide could be developed and disseminated (e.g., *The USOC Guide to Athletic Talent Development*). A video developed and shown in all USOC Training Facility visitors centers. *USA Today* and *Sports Illustrated* columns on developing athletic talent could be initiated, and during the Olympic Games television coverage, U.S. Olympic champions could tape public service spots focusing on important talent development and sport parenting messages.

Participant Recommendations

In the final portion of the interview, the participants were asked to identify recommendations for those working with talented athletes. These lessons learned are summarized in the table below:

Parenting Champions: Advice from Athletes, Parents and Coaches

Achievement Strategies

- Emphasize a "can do" / "Don't quit" attitude.
- Allow kids to learn on their own – stand on two feet.
- Challenge your child to reach as far as he or she can.
- Encourage your child to problem solve in a healthy and constructive manner (e.g., explore all the options, seek advice and help when necessary).
- Expose your child to elite achievers in a variety of settings. Let them see that "ordinary" people just like them can achieve extraordinary things.
- Help athletes understand and value the connection between hard work and achievement.
- Strive to provide your child with the optimal push – a mix of unconditional support and parental motivation. Recognize that the optimal amount of push will change as your child ages, and it will vary from child to child.
- Help your child cope with failure and frustration. Help him or her see set backs as a normal and helpful part of striving for and achieving success.

Encouragement

- Be enthusiastic and encouraging.
- Give encouragement.
- Be supportive/ your child's biggest fan.
- Don't criticize your child.

Self-Motivation

- The child-athlete needs to be self-motivated and self-driven. As a parent, you can help your child-athlete maintain his or her motivation, but you can't create it for him or her.
- Understand that the key to devoting talent in any area is to first foster and build an internal love of the activity and a solid base of healthy psychological skills (e.g., healthy coping mechanisms, determination, focus).
- Long-term commitment to an activity or a goal needs to come from within your child.
- Be dedicated to your child-athlete's goals – but make sure the goals are his or hers.

Discipline

- Help kids make and follow through on short-term commitments, especially during the early years.
- Provide your child with both discipline and guidance.

Development

- Allow the child to be a kid, especially during the early years of involvement in activities.
- Listen to your athlete and strive to understand his or her developmental needs.
- Maintain a focus on development and enjoyment, especially during the early years.
- Sport involvement will help your child's confidence, provide him or her with a source of self-pride, and can help an adolescent through the perils of puberty. Encourage your child to remain involved in sport and physical activity, even if they decide to leave the competitive component.

Coaching

- Emphasize the importance of coach respect and good sportsmanship.
- Find a good coach, then let them do their job. Don't be a stage parent.
- During the early years, focus on finding coaches that will interact with your child, who will keep the activity fun, and who will not harm your child or his or her enthusiasm.

- Maintain a good relationship with your child’s coach based on mutual trust and respect.
- Monitor your child’s early coaches to ensure that they do not push too hard.

Unconditional Love and Support

- Let your child know you value who he or she is, not just what he or she does or what he or she can accomplish.
- Make sure your child knows that your love and support is unconditional.

Role Model

- Lead by example.
- Be a role-model – model the behaviors you would like to see your child exemplify (e.g., determination, and active lifestyle).

Perspective

- Maintain a sense of sibling/ family member equality in the home.
- Help your child keep his or her sport identity and winning in perspective with the rest of his or her life.
- Stress the importance of education and maintaining a well-rounded sense of being.
- Avoid an outcome-oriented philosophy (e.g., focusing only on winning). It will decrease motivation and enjoyment over time and may lead to the termination of the sport experience. Instead, focus on process and performance achievements.
- If your child experiences success early, strive to help him or her remain “normal” (e.g., winning Olympic gold does not exempt one from doing his or her chores).
- Focus on performance expectations/ keep your expectations realistic and low key.

General

- Provide your child-athlete with a safe and enjoyable environment.
- Don’t try to live through your child.
- Encourage open and honest communication.
- Don’t criticize the athlete’s coach or teammates in front of the athlete.

Final Thoughts

The results of this study have shown that these Olympic champions were characterized by a number of important psychological characteristics. Hence, we have a very good idea of the psychological characteristics of a champion. It must be remembered, however, that these are group results. No one Olympian was characterized by all the factors identified.

In addition, each was unique in how the factors were combined to comprise his or her distinctive psychological make-up.

Findings also clearly revealed that psychological talent development is best thought of as a complex system made up of a variety of factors of influence. It is a long-term process that requires proper nurturing if success is to be achieved. Any number of individuals and agencies influence this process and do so in a variety of direct and indirect ways.

It is our hope that as we begin to study the process of psychological talent and development in outstanding athletes, we will be better equipped to help all athletes better develop mentally, so that they can achieve their personal performance and well-being objectives. For as Howe (1999, p.182) has indicated:

We cannot map people's lives in advance, but much can be done to make desirable outcomes more likely. Acquiring high abilities is one such outcome. We can and should act to make it happen more often.

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