

# Specialization in Sport: How early... How necessary?

David Susanj, Butte Public Schools, Mt, USA; Craig Stewart, Montana State University, Mt, USA

[Introduction - Review of Related Literature](#)

[Arguments For Specialization](#)

[Arguments Against Specialization](#)

[Does Specialization Help?](#)

[Psychological and Sociological Effects & Risks of Specialization](#)

[Conclusions](#)

## Introduction

Sport specialization, or the exclusive participation in one sport by young athletes, is a controversial topic. With the stunning success of high profile athletes such as tennis stars Venus and Serena Williams, golfer Tiger Woods, and basketball's Michael Jordan, many feel that emulating the achievements of these athletes (Lord, 2000) can only be achieved by early specialization in one sport.

The purpose of this study was to investigate the relationship between sport specialization of male basketball players and success at the varsity college level in nine, four-year colleges and universities that play basketball in the state of Montana. The results would assist in the determination of the efficacy of sport specialization for youth.

## Review of Related Literature

Specialization is a contentious issue among school administrators and athletic directors who seek to provide a healthy and appropriate educational environment for competitive sports. These administrators are burdened by expectations of turning out individuals and teams that consistently win, yet must provide an educationally sound foundation on which to base school district athletic programming needs. Hill (1987) found that specialization has been occurring continually, and that athletic directors predict it will continue to increase. He stated that the primary cause of this increase is the influence of adults (coaches and parents), and of athletes' perceptions that specialization would increase their possibility of success either by winning more or increasing the chances of receiving college athletic scholarships. The general feeling was that although most coaches and athletic directors acknowledge that specialization enhances individual and team performance, it undermines the basic purpose of high school athletics (Hill & Simons, 1989).

High school administrators are keenly aware of the negative image sport specialization can cast on their schools. They don't want their athletic programs to be seen as a high-pressure farm system for college and professional teams, and they don't want the conflicts that develop among coaches competing for the limited pool of athletes (Hill & Hansen, 1988). Many athletes and teams, in an effort to win and/or improve their performance, participate in out of season leagues. One result of this scenario is that the athletes avoid other sports during the off-season. These athletes essentially become specialists, and ultimately lose the benefits of playing a variety of sports. Some administrators feel they have negated this problem by ensuring all students have the opportunity to participate in a variety of physical education activities and intramurals. Others have gone as far as developing summer leagues that use a mix of athletes, coaches, and school units, and require that theirs' is the only league their athletes can play in, thereby avoiding some of the criticisms of focused play outside school (Bloch, 1992).

Another common situation is for smaller schools with limited numbers of athletes to share them between major sports and minor sports that occur at the same time. The obvious benefit is that of having quality athletes on all teams, enhancing the possibilities of winning. The downside of this situation is the accumulation of stress this amount of participation can have on the athlete. In response to this, some states such as Washington and New

Jersey have moved to prohibit athletic participation in two sports at the same time (Hash, 2000).

Most school do not have a policy toward specialization, yet as Hill (1988) discovered, over 63% of athletic directors agreed to recommendations favoring diversification of athletes throughout their athletic programs. Suggestions as to what can be done include rewarding students who participate in multiple sports, seeking coaches cooperation when competing for limited numbers of athletes, and ensuring the athletic departments advise athletes as to the risks associated with specializing exclusively in one sport (Hill & Hansen, 1988).

## Arguments For Specialization

Many believe to earn athletic scholarships and consistently have winning programs, athletes must spend significant time outside the regular season working on sport-specific skills (Hash, 2000; Hill, 1987; Hill & Hansen, 1988). The perception of most coaches and parents is that if all the other athletes are doing it and you aren't, in time, you won't be able to compete (Matheson, 1990).

Specialization appears to be especially common in large schools where coaches have a more substantial pool of athletes from which to draw (Gillis, 1993). Year-round athletes also tend to be numerous in Olympic sports such as gymnastics, figure skating, and swimming, where, as Gillis also found, the school-related component is limited.

Hill (1987) reported that in relationship to college scholarships, NCAA Division I basketball coaches feel that their most important method of identifying prospective recruits is through summer camps. He also found that of all athletes, basketball players are most often involved in non-school camps and leagues. It was interesting to note that a majority of basketball coaches perceive sport specialization as a way for their athletes to enhance the skills in their sport, while a majority of football coaches did not, yet he found similar percentages of athletes who specialize in football, baseball, and basketball.

## Arguments Against Specialization

The arguments against specialization are numerous. Specialization often conflicts with the educational mission of schools whose goals should be to provide athletic programs that lead to the greatest personal growth for the greatest number of students (Gillis, 1993). Multi-sport athletes tend to get better grades, and are often the most active and productive athletes in the school (Cardone, 1994). An athlete who participates in team and individual sports gains the perspectives and values unique to each (Matheson, 1990), and the exposure to different coaches with different philosophies, strategies, and personalities can provide important benefits for the development of a well-rounded athlete (Hill, & Hansen, 1988). Finally, by participating in multiple sports, athletes gain the opportunity to learn transferable athletic skills, such as the football player who learns balance and agility from wrestling.

Failure or injuries can be devastating to specialists if they have no other sport to fall back on, whereas multi-sport athletes have the option of moving to another sport that provides new opportunities and challenges. This type of stress can take a toll on athletic specialists. With pressure to succeed hinging on one sport, the consequent anxiety often leads to burnout (Hill & Hansen, 1988).

## Does Specialization Help?

There is little to suggest that specialization makes an athlete better at a sport. On the contrary, Bill (1977) cited by Hill (1987) concluded that off-season basketball practice was not effective in improving basketball-playing ability.

Though Hammel (1974), Yaffe (1982), and Ryan (1995) cited several examples of great athletes who began specializing in early childhood, there are many examples of successful latecomers to sports as well. Bill Rogers, New York and Boston Marathon winner began his running career at age fifteen, and basketball great Michael Jordan wasn't good enough to make his varsity high school team until his junior year (DiFiori, 1999). There are also many examples of USA athletes, such as Jim Thorpe, Babe Zaharias Didrickson, John Elway, Bo Jackson, Dion Sanders who achieved high levels of skill and professional success while participating in more than one sport (Encyclopedia Britannica Online, 2002).

Methods and Procedures: After making initial contact by phone, questionnaires were mailed to the men's basketball coaching staffs' of the nine, four-year colleges and universities in Montana, USA. The coaches agreed to administer

and return the surveys to the authors.

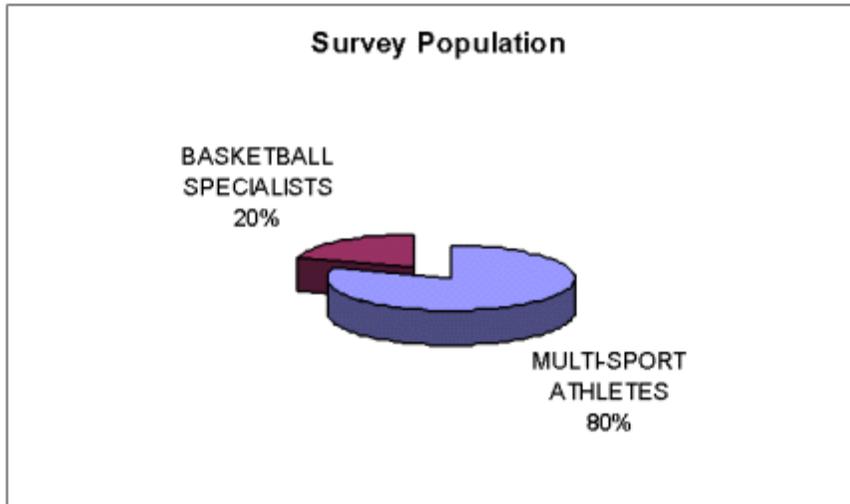
Results: The subjects in this study were male varsity basketball team members (n = 122) attending the nine, four-year colleges and universities in Montana (see Table 1). They were divided into two groups, (1), basketball specialists, and (2), multi-sport athletes.

**Table 1. Demographic Data**

		Multi-sport Athletes	Basketball Specialists
	Total number of respondents	96	26
	Average Age	20.3	20.1
<b>Race</b>	Black	10	6
	Caucasian	76	17
	Native American	5	2
	Other	4	0
<b>Community Size</b>	Metro	19	7
	Medium City	23	8
	Small Town	13	7
	Rural	39	3
<b>Scholarship Status</b>	Athletic Scholarship	55	16
	Academic Scholarship	1	1
	Combination of Athletic and Academic Scholarships	31	7
	No Scholarship	7	1
	Scholarship Offers from other Institutions	80	22

Of the 122 total respondents, only 24 or 19.7%, played basketball exclusively in high school with the remaining 80.3% (n = 98) participating in at least one other sport besides basketball (see Figure 1). One respondent even indicated that he had played other sports, but not high school basketball, yet earned a position on a college basketball team.

**Figure 1. Survey Population**



Discussion: The increase of youth participating in organized sport has been accompanied by many of the same practices as seen in adult sports, that is, more hours practicing and specializing in a single sport (Cahill & Pearl, 1993). With the apparent increase in specialization have come numerous problems. One of the most visible effects of sport specialization is the rising incidence of injury due to overuse.

Dalton (1992) stated that thirty to fifty percent of all pediatric sports injuries are due to overuse. With over thirty-five million children, adolescents, and young adults participating in sports in the USA, specialization has become a serious medical problem (DiFiori, 1999). Overuse injuries can occur in any sport that involves intense training, but it seems to be more prevalent in individual sports such as gymnastics and figure skating than in team sports (Micheli, 2001).

Hollander, Meyers and LeUnes (1995) found that growing injuries to youths are affecting cartilage and growth plate development, as well as causing chronic degenerative processes to occur in young bones. He also revealed that stress levels due to intense participation affects levels of cortisol in the blood, reducing normal repair and recovery of muscle tissue.

## Psychological and Sociological Effects & Risks of Specialization

Parents typically would never advocate an activity that would jeopardize their child. Yet, often the pressure to specialize comes from the parent (Kantrowitz, 1996). The impetus to achieve is strong for some parents who are psychologically, socially and/or financially invested in the success of their young athlete (Coakley, 1998). The pressure and associated guilt felt by the athlete can result in anxiety, discouragement, conflict with the parent, a feeling of being burned-out with the sport, and ultimately withdrawal.

The pressure to succeed in sports often leads to burnout and dropout (Kantrowitz, 1996). Prior to dropping out, athletes can often experience serious academic problems. Trusty and Dooley-Dicky (1993) found that academic problems may begin as early as sixth grade. Early symptoms of burn out are athletes who stop enjoying the experience or cease to improve (Weiss & Petlichkoff, 1989).

The social context for dropout and burnout is often overlooked, but as Coakley (1992) discussed, it is often more significant than any personal factors. The one-dimensional self-concept that develops with specialized athletes creates a developmental dead end. Young athletes feel trapped in a role and identity that depends on their success as an athlete. This is a chronic stress situation that can result in burnout, and may occur at an age where the athletes haven't reached their potential.

Another consideration is what happens when all the time, effort, and resources do not produce the sport's child prodigy? Smoll, Magill, & Ash (1988) wrote, "We are not told what happens to youngsters who do not make it." But the implication was that the sense of failure is significant.

There are many factors that influence a player's success at levels above public school athletics. The probability of reaching the highest levels of competition is small. In basketball in the USA, only three-percent of high school players will ever play in college. Of that group, only three-percent play professional basketball. Even when succeeding

against these odds, the average professional basketball player's career is only four to six years (Leonard, 1996).

Other uncontrollable factors exist along the path to success. Stevenson (1990) found that the evaluation for potential success by coaches and scouts is an irrational process at best. Often the key to success is being in the right place at the right time, being seen by the right people, fortuitously stepping into the position of a fallen teammate, or by chance possessing the playing style that is favored by the team's current coach.

## Conclusions

It was obvious by this limited study that additional information is needed to evaluate the risks and rewards of specialization before we as a global sport society offer a wholesale endorsement of its effectiveness. Due to the size and geographical limitations of this study, the outcomes cannot be extrapolated to other areas of the USA or the world. However, the fact that only 20% of varsity college basketball players in Montana had specialized in high school appears to argue against popular belief that specialization is necessary for athletic success. Additional studies in which researchers investigate the backgrounds of successful athletes would assist athletes, their parents, and coaches in determining if the need for specialization outweighs the risks.

## References

- Bill, A. (1977). The effect of an off-season skill development program on high school basketball players. (Masters Thesis, University of Wisconsin-Lacrosse, 1977) pp. 10-16.
- Bloch, J. (1992). Illinois school acts on specialization. *Interscholastic Athletic Administration*, 18 (4) 22-23.
- Cahill, B. R., & Pearl, A. J. (1993). *Intensive Participation in Children's Sports*. Human Kinetics Publishers, Champaign, IL.
- Cardone, D. (1994). A.D. Roundtable: Has specialization in sport affected participation in interscholastic programs? *Scholastic Coach and Athletic Director*, 64 (5), 4.
- Coakley, J. (1992). Burnout among adolescent athletes: A personal failure or social problem? *Sociology of Sport Journal*, 9, 271-285.
- Dalton, S. E., (1992). Overuse injuries in adolescent athletes. *Sports Medicine*, 13 (1), 58-70.
- DiFiori, J. P. (1999). Overuse injuries in children and adolescents. *The Physician and Sportsmedicine*, 27, 1.
- Encyclopaedia Britannica Online. [online]. Available: <http://www.eb.com:180/bol/topic?eu=74141&sctn=1&pm-1> (Accessed 24 March 2002).
- Gillis, J. (1993). To play one or several school sports? Such is the issue of specialization. *National Federation News*, 10 (9), 16-20.
- Hammel, B. (1974). The 60 game winning streak: who won, who lost? *Phi Delta Kappan*, 56 (10), 125-128.
- Hash, L. (2000). Sharing athletes. *National Federation State High School Associations Coaches' Quarterly*, 4 (3), 10.
- Hill, G. M. (1987). A study of sport specialization in mid-west high schools and perceptions of coaches regarding the effects of specialization on high school athletes and athletic programs. (Doctoral Dissertation, University of Iowa, 1987). UMI Dissertation Services.
- Hill, G. M. (1988). Student participation: Directors opposed sport specialization in high school athletic programs. *Interscholastic Athletic Administration*, 14 (4), 8-9.
- Hill, G. M. (1993). Youth sport participation of professional baseball players. *Sociology of Sport Journal*, 10, 107-114.
- Hill, G. M., & Hansen, G. F. (1988). Specialization in high school athletics: A new trend? *Clearing House*, 62 (1), 40-41.
- Hill, G. M., & Simons, J. (1989). A study of the sport specialization on high school athletics. *Journal of Sport and Social Issues*, 13 (1), 1-13.

- Hollander, D. B., Meyers, M. C., & LeUnes, A. (1995) Psychological factors associated with over-training: Implications for youth sport coaches. *Journal of Sport Behavior*, 18, 3-18.
- Kantrowitz, B. (1996, December 9). Don't just do it for daddy: Parents can push. But real success awaits the kids who want to achieve for themselves. *Newsweek*, 128 (24), 56-58.
- Leonard, W. M. II. (1996). The odds of transiting from one level of sports participation to another. *Sociology of Sport Journal*, 13, 288-299
- Lord, M. (2000, July). Too Much, too soon? Doctors group warns against early specialization. U.S. News Online. [online]. Available: <http://www.usnews.com:80/usnews/issue/000717/athlete.htm> (July 19, 2000)
- Martin, D. E. (1997). Interscholastic sport participation: Reasons for maintaining or terminating participation. *Journal of Sport Behavior*, 20 (1), 94-103.
- Matheson, B. (1990). Specialization: A detriment to high school sports. *Saskatchewan High Schools Athletic Association Bulletin*, 14 (4), 5-6.
- Micheli, L. J., (2001). Injuries among young athletes on the rise. *United States Sports Academy's Sport Supplement*, 9 (1), 1,8.
- Smoll, F.L., Magill, R.A., & Ash, M.J. (1988). *Children in Sport* (3rd ed.). Champaign, IL: Human Kinetics.
- Stevenson, C. L. (1990). The early careers of international athletes. *Sociology of Sport Journal*, 7, 238-253
- Trusty, J., Dooley-Dickey, K. (1993). Alienation from school: An exploratory analysis of elementary and middle school students' perceptions. *Journal of Research and Development in Education*, 26 (4), 232-242.
- Weiss, M. R., Petlichkoff, L. M., (1989). Children's motivation for participation in and withdrawal from sport: Identifying the missing links. *Pediatric Exercise Science*, 1, 195-211.
- Yaffe, E. (1982). High school athletics: A Colorado story. *Phi Delta Kappan*, 64 (3), 177-18.