

# Early Sport Specialization – “Should Developing Athletes Specialize?”

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# Introduction

- No Conflict of Interest





# Presentation Focus

1. Define/Introduce Sport Specialization
2. Identify Steps of Learning
3. Benefits of Sport Specialization



# Definition

- Sport Specialization – Intense training in one sport while excluding others (LaPrade 2016) (Jayanthi 2013)
- The 3 sport athlete is becoming a thing of the past – sport specialization is in vogue

# Introduction

- Why do athletes specialize?
  - Enjoy the sport the most (Snyder 2017)
  - Sport success
    - Study demonstrate 62% of athletes felt sport specialization lead to sport success (Kohmetscher 2013)
  - Maximize potential (Kohmetscher 2013)
  - Competitiveness (Kohmetscher 2013)

# Introduction

- Why do athletes specialize? (Berardini 2016)
  - Improve fitness
  - Commitment and teamwork
  - Build self-esteem
  - Make friends and have fun
    - Stronger bond with friends



# Steps of Learning

- Cognitive Stage – Develop an overall understanding of the skill(s)
  - Athlete identifies the objective(s) of the skill
  - Process environmental factors that affect the ability to perform the skill(s)
  - Athlete relies on visual input, trial and error and instruction to improve the skill(s) (O'Sullivan 1994)

# Steps of Learning

- Associative Stage – Athlete to show a more refined skill(s) through practice
  - More focus on how to do the skill(s) instead of what to do
  - Proprioception becomes more important





# Steps of Learning

- Autonomous Stage – the skill(s) become more automatic
  - Athlete performs the skill(s) in a variety of environments  
decreased cognitive involvement
  - Allows athlete to focus on new skills for specific sport,  
mental game, strategy, etc.
    - Decrease the gap to elite level play





# Benefits of Sport Specialization

- Discipline – “to train or develop by instruction and exercise especially in self-control” (Meriam-Webster)
  - Better skill(s) acquisition
  - Improve the ability to deal with adverse situations
  - Enhance focus
  - Improve other facets of life

# Benefits of Sport Specialization

- Repetition
  - Develop correct motor patterns
    - “10 year rule” (Caruso 2017)
  - 10,000 hours to become an expert (Gladwell 2008)
  - Learn skills faster
  - Higher efficiency
- Enhance Skill Level
  - Not always attained with structured practice or games (Jayanthi 2013)



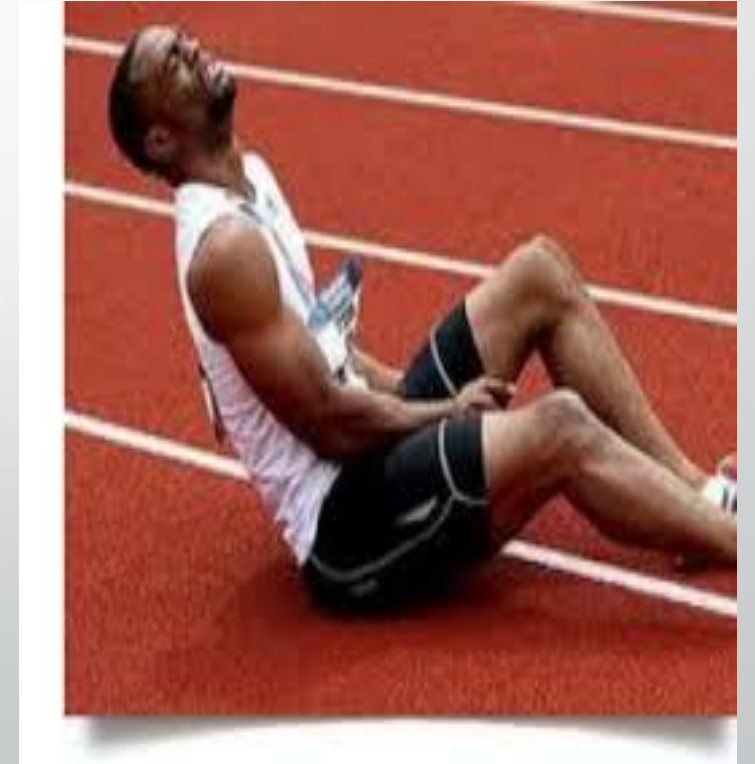


# Benefits of Sport Specialization

- Confidence
  - Skill/sport acquisition leads to greater confidence (Stankovich 2010)
  - Greater self-assurance (Eytel 2017)
  - Helps to appreciate own or others abilities
  - More comfortable in specific environment can enhance confidence

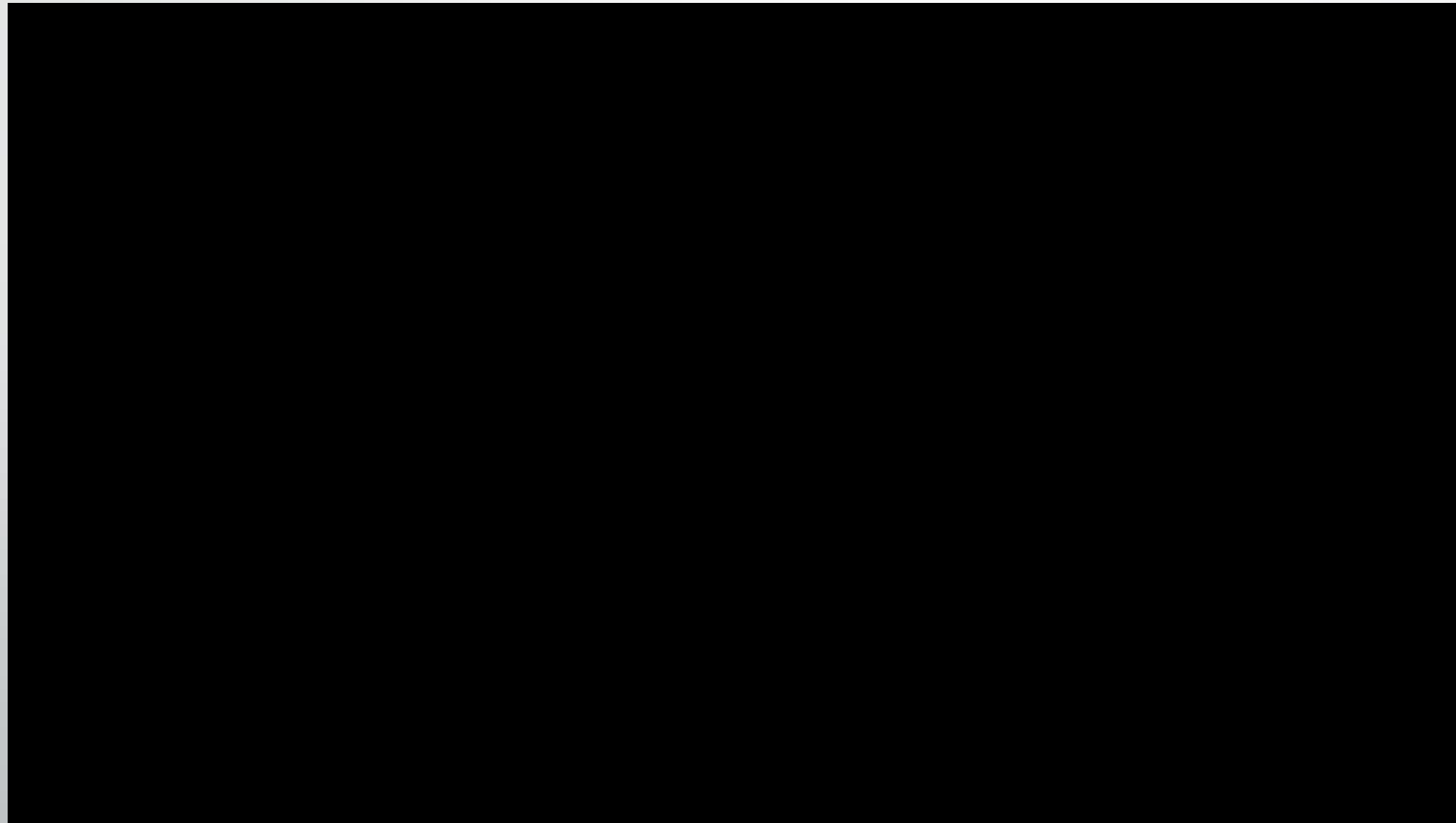
# Benefits of Sport Specialization

- Decrease risk of injury from playing other sport
  - Often in the same season
- Decrease the risk of multiple sport practices/games on same day
  - Allows for better recovery
  - Nutritional needs more easily met





# Benefits of Sport Specialization: Recovery/Nutrition Needs



<https://www.youtube.com/watch?v=18yao-OZ58s>



# Benefits of Sport Specialization: Injury Study

- A systematic review was performed according to the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) guidelines for studies evaluating sports specialization and musculoskeletal injury
- 3 met criteria
- Primary evidence is scarce and showed only a modest association (Fabricant, et al 2016)

# Benefits of Sport Specialization

- Difficulty deciding which sport to play (Stankovich 2010)
  - Coaches pressure to do his/her sport
  - Difficulty with sport schedule crossover
  - Lack of “kid time”
  - Hard to keep up academically





# Benefits of Sport Specialization

- Science/Technique/Coaching is better
  - Science helps teach better:
    - Technique
    - Recovery
    - Coaching
    - Minimize multiple sport overuse – leads to injury



# Benefits of Sport Specialization

- Participation vs. better talent (Stankovich 2010)
  - Become better player as competition improves
- Play in different region(s) of the country
  - Different life experiences
  - Meet new people
- More exposure to college coaches





# When Should An Athlete Specialize?

- Athlete has sport knowledge
- Athlete possesses motivation
- Athlete has good fundamental motor skills (Caruso 2017)
- Athlete has good support environment (parents/family, coach, academics)



# Conclusion

- This decision is athlete/family dependent
- Should discuss sport specialization with coach/parent/athlete
- Discuss with family physician and/or specialist
- All support the decision

Thank You



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