

Pediatric Healthcare Provider Knowledge and Perceptions of Sports Specialization

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Background & Significance

- Sport specialization is increasingly common within many youth sports and has been associated with increased injury rates.¹
- For this reason, the AAP, the AMSSM, and other organizations concerned with youth sport safety, have issued statements containing recommendations.^{2,3}
- Previous research on knowledge and perceptions of sports specialization among parents and athletes has found that recommendations are not well known by parents and only some parents and athletes report concern about the increased rate of injury.⁴
- Healthcare providers (HCP) can be a source of education for parents and athletes, but the knowledge and perceptions of sport specialization among HCP who work with youth athletes is limited.

Study Purpose

The purpose of this study was to evaluate the knowledge and perceptions of sport specialization among HCP who work with youth athletes.

Methods

- Design: Cross-sectional survey
- Sample: Secondary high school athletic trainers who are members of NATA (n=5000) in addition to all PRISM members (n=297)
- Data Collection: Survey was distributed electronically by email between October 2019 and January 2020. The survey was open for completion for 4 weeks. Two reminders were sent. No incentive was offered for completion.
- Measure: Research team-generated survey containing sections that assessed: 1) personal and professional demographics, 2) knowledge and perceptions of sport specialization, 3) awareness and use of sports specialization recommendations, and 4) HCP education specific to sports specialization.
- Statistical approach: Data was analyzed using descriptive statistics

Results

Knowledge and Perception of Sports Specialization

Recommendations	Yes n (%)	No n (%)
Are you aware of any recommendations specific to the maximum number of months in a year that youth athletes should be allowed to participate in organized, competitive sports in order to reduce the risk of injuries from overuse?	308 (60.6)	201 (39.5)
Are you aware of any recommendations about the maximum number of hours in a week that youth athletes should be allowed to participate in organized competitive sports in order to reduce the risk of injuries from overuse?	303 (59.3)	206 (40.7)
Are you aware of any recommendations about the number of teams that a youth athlete should participate on at the same time?	285 (56.1)	223 (43.9)
Do you believe it is appropriate for a youth athlete to participate on multiple teams of the same sport at the same time?	60 (11.8)	448 (88.2)
Do you believe it is appropriate for a youth athlete to participate on multiple teams of different sports at the same time?	258 (50.7)	251 (49.3)
What percentage of youth athletes do you think receive a college scholarship that is related to athletic performance?	15.8%	

Sports Specialization Educational Background

	n (%) or Median
Do you believe that more educational resources are needed to inform providers about the different recommendations related to sport specialization?	Yes 479 (94.5) No 28 (5.5)
Did you receive any training on the topic of preventing overuse injuries during your formal education program?	Yes 339 (66.6) No 170 (33.4)
In what setting did you receive training regarding the prevention of overuse injuries during your education program?	
Classroom setting	82 (24.2)
Clinical setting	23 (6.8)
Both	234 (69.0)
How would you describe the training that you received regarding prevention of overuse injuries?	
Extremely inadequate	11 (3.2)
Somewhat inadequate	48 (14.2)
Neither adequate nor inadequate	58 (17.2)
Somewhat adequate	168 (49.6)
Extremely adequate	54 (15.9)
In what year did you receive this training regarding the prevention of overuse injuries? (year)	Median = 2010 Range: 1978 – 2019
Since your formal education program, have you completed any professional development regarding protecting youth athletes from overuse injury?	Yes 239 (70.5) No 100 (29.5)
In what year did you complete this additional professional development regarding protecting youth athletes from overuse injury? (year)	Median = 2017 Range: 1995 - 2019

Sample Characteristics

	n (%) N=508
Sex	
Female	279 (54.9)
Male	229 (45.1)
Age (in years)	37.2 ± 10.5
Role	
Athletic Trainers	379 (74.6)
Physicians	86 (16.9)
Physical Therapists	35 (6.9)
Nurse Practitioners	5 (1)
Physician Assistants	4 (<1)
Experience caring for youth athletes (in years)	11.2 ± 9.1

- The survey was accessed by 620 HCP (access rate=11.7%)
- The survey was completed by 508 HCP (completion rate=81.9%)

References

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Conclusions

- While 90% of the HCPs agreed that specializing places youth athletes at an “extremely” or “very high” injury risk, and 89% believe sports specialization was a “great deal” or “quite a bit” of a problem, knowledge of recommendations regarding this issue was low.
- Most HCP agreed that more sports specialization educational resources are needed.
- These findings highlight the need for improved education regarding youth sports specialization so HCP can partner with parents and youth athletes to address this growing health issue.

Limitations

- While the sample represented high numbers of Athletic Trainers, other HCP were not as well represented.
- Analyses did not assess potential differences in sports specialization knowledge and perceptions among various HCP roles.

Future Research Implications

- Representation from a broader group of HCPs would strengthen this important area of inquiry and allow the examination of differences among HCP roles to customize improved educational efforts specific to sports specialization.



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