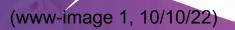


Youth Sports Specialisation From a Sports Physiotherapy Perspective

James Grimm Masters of Physiotherapy (Sports) (Student) B. Sci (Ex Sci), M. Phty, M. Phty (MSK) The University of Queensland







Brisbane 2032

Olympic and Paralympic Games Host

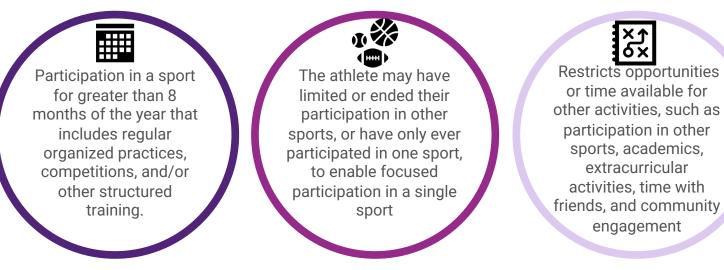
Queensland

6



What is Specialisation in Youth Sports?

Specialisation is considered when some or all of the following elements are met: (Myer et al. 2015)



Early Specialisation: Specialisation in a single sport <12 years old





Beliefs and Attitudes Around Specialisation

<u>Athlete</u>

To be better at sport To make college team Developing life skills Having fun Winning Increasing chances of playing professionally Increasing chances of obtaining college scholarship

Parental

Parental beliefs strongly correlated with specialisation status of child

47% of parents believed best age to specialise was between 5-13 years old

Majority of parents believed it would increase success

Coaches

95.1% of coaches find specialization at least 'a little' concerning

74.3% of coaches at least 'very concerned' about parental behavior

Coach main driver for intensive training in swimming, tennis, gymnastics and soccer, all <10 years old

(Brooks et al. 2018)

(Strosser 2021)

(Post et al. 2020, Baxter-Jones et al. 2003)

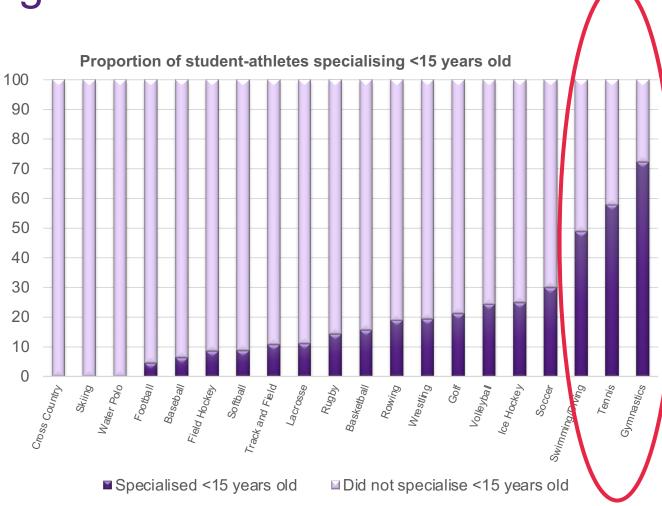


Does specializing younger lead to success

Early Sport Specialization Among Former National Collegiate Athletic Association Athletes

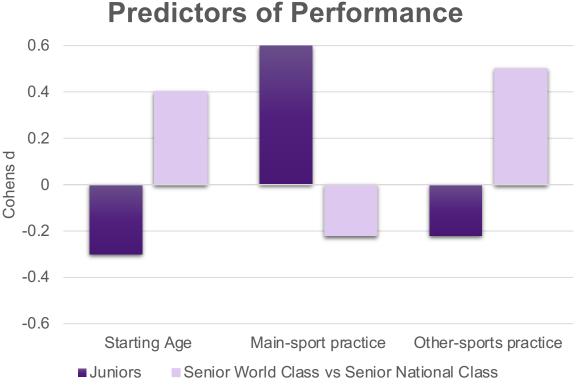
Trends, Scholarship Attainment, Injury, and Attrition

Caitlin M. Rugg,^{*†} MD, MS, Monica J. Coughlan,[‡] MD, Justine N. Li,[‡] Sharon L. Hame,[§] MD, and Brian T. Feeley,[‡] MD Investigation performed at University of California–San Francisco, San Francisco, California, USA





Does specializing younger result in success?

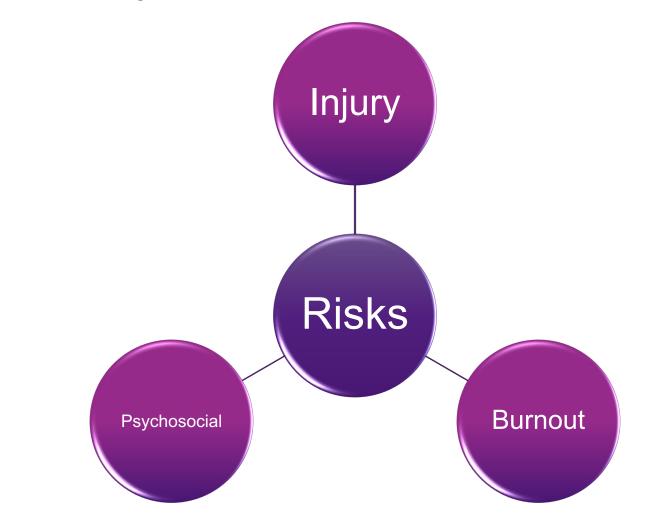


Predictors of Junior Versus Senior Elite Performance are Opposite: A Systematic Review and Meta-Analysis of Participation Patterns

Michael Barth^{1,2} · Arne Güllich³ · Brooke N. Macnamara⁴ · David Z. Hambrick⁵

Accepted: 8 December 2021 / Published online: 17 January 2022 © The Author(s) 2022, corrected publication 2022











Only slightly higher risk of overall injury

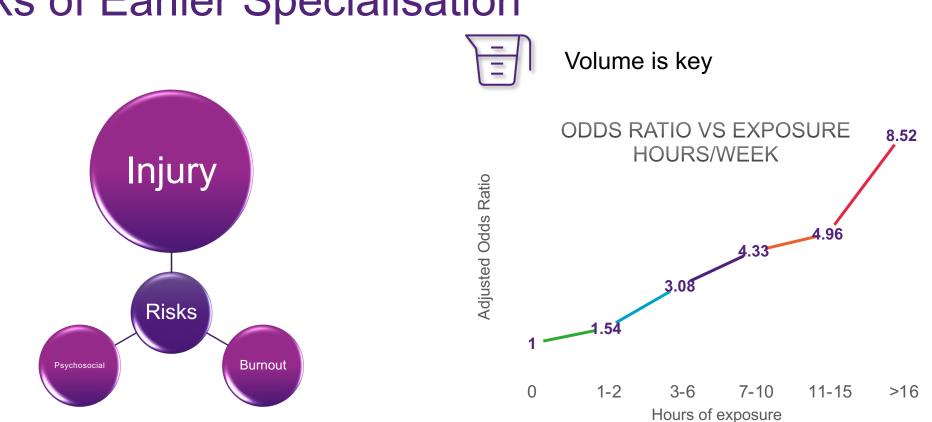


More likely to suffer 'serious' overuse injuries



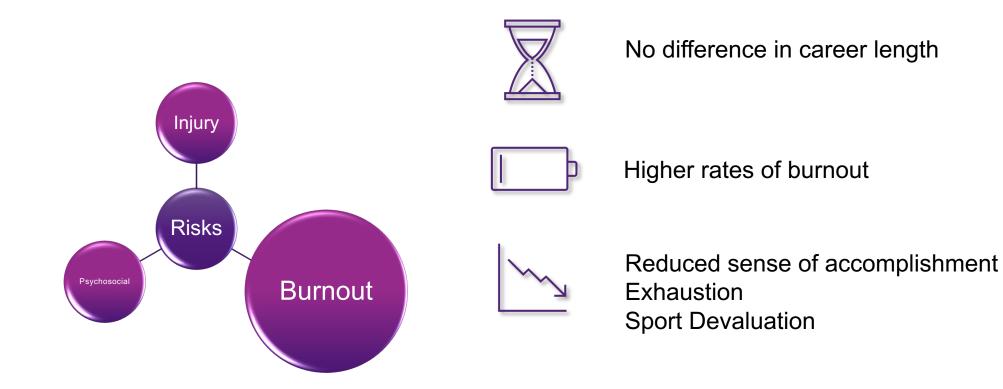
Volume is key



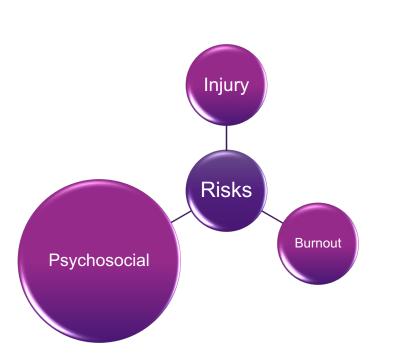


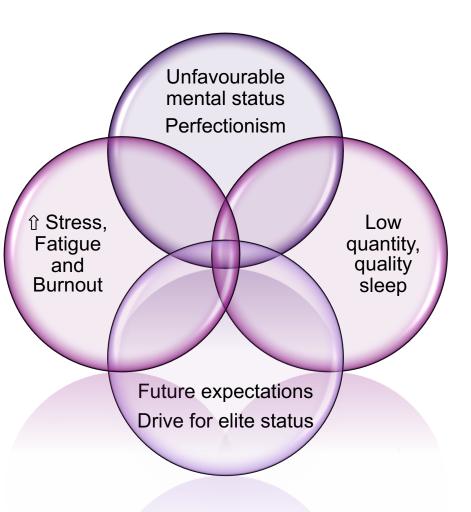
(Rose et al. 2008)



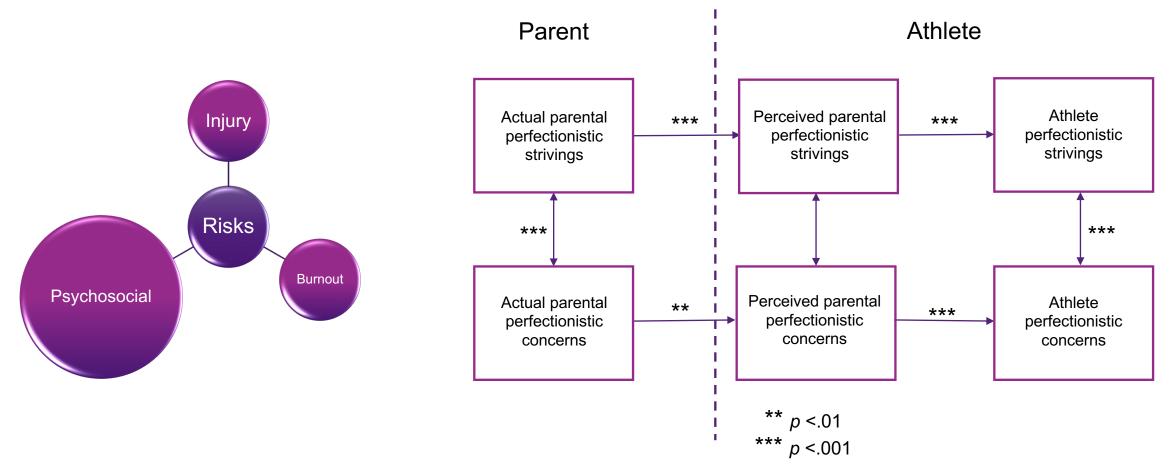








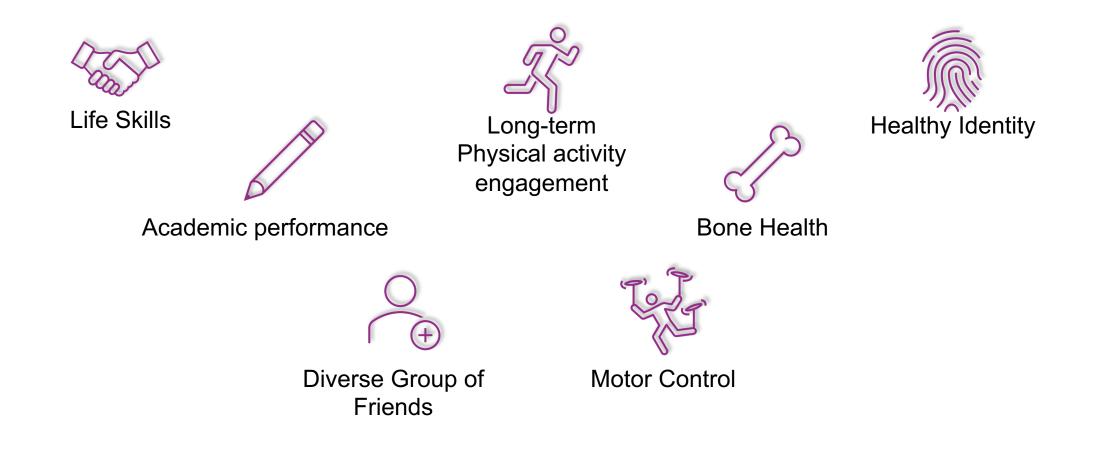




(Olsson et al 2020)



Is there benefits to sampling?





What do the organisations say?





Managing the Specialised Youth Athlete





Managing the Specialised Youth Athlete

Recommended

Workload hrs/week < Age Freeplay > Competition Monitoring every 4-6 months

Moderate Bisk

Moderately specialised Suspected Low-risk injury Monitoring weekly to monthly

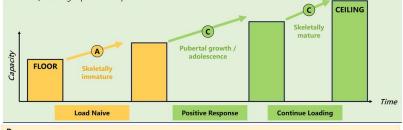
Highly specialised Suspected high-risk injury Monitoring daily to weekly



Managing the Specialised Youth Athlete

Training the specialised youth athlete: a supportive classification model to keep them playing

Neeru Jayanthi ,¹ Heather Saffel,² Tim Gabbett ^{3,4} British Journal of Sports Medicine 2021;55:1248-1249. The Load Tolerant athlete first follows Training Model A, and continues to increase load through Training Model C following a positive response.



ELOOR Skeletally Load Naive Injury Continue Loading

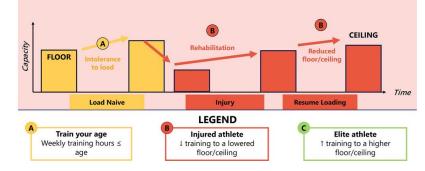
The Load Naïve athlete first follows Training Model A, before sustaining an injury and loading through

Training Model B. Following recovery, the athlete loads through Training Model C.

.....

C

The Load Sensitive athlete first follows Training Model A, before sustaining an injury and struggling to recover. The athlete continues to follow Training Model B.





Take Home



Early specialisation ≠ success



Increased chances of 'serious' over-use injuries



Volume is key



Monitor for signs of psychosocial behaviours



Continued monitoring of athlete is essential in management



Thank you

James Grimm Masters of Physiotherapy (Sports) (Student) B.Sci (Ex Sci), M. Phty, M Phty (MSK) j.grimm@uq.edu.au

CRICOS code 00025B



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Image 1: Mimiji Nishiya, Adapted from Skateboarding gold medalist Momiji Nishiya has homework on her mind, Retrieved from https://www.japantimes.co.jp/sports/2021/07/27/olympics/summer-olympics/skateboarding/nishiva-olympics-nakayama/ Image 2: Brisbane Olympics Adapted from inhouse by bid committee Retrieved from https://logos.fandom.com/wiki/Brisbane 2032 Image 2: Nadia Comaneci Adapted from Wally McNamee Retrieved from https://bestlifeonline.com/nadia-comaneci-olympics-gymnast-now-news/ Barth, M., Güllich, A., Macnamara, B. N., & Hambrick, D. Z. (2022). Predictors of Junior Versus Senior Elite Performance are Opposite: A Systematic Review and Meta-Analysis of Participation Patterns. Sports Medicine, 52(6), 1399-1416. https://doi.org/10.1007/s40279-021-01625-4 Baxter-Jones, A. D., & Maffulli, N. (2003). Parental influence on sport participation in elite young athletes. J Sports Med Phys Fitness, 43(2), 250-255. Bell, D. R., Post, E. G., Biese, K., Bay, C., & Valovich McLeod, T. (2018). Sport Specialization and Risk of Overuse Injuries: A Systematic Review With Metaanalysis. Pediatrics, 142(3). https://doi.org/10.1542/peds.2018-0657 Brenner, J. S., LaBotz, M., Sugimoto, D., & Stracciolini, A. (2019). The Psychosocial Implications of Sport Specialization in Pediatric Athletes. J Athl Train, 54(10), 1021-1029. https://doi.org/10.4085/1062-6050-394-18 Brooks, M. A., Post, E. G., Trigsted, S. M., Schaefer, D. A., Wichman, D. M., Watson, A. M., McGuine, T. A., & Bell, D. R. (2018). Knowledge, Attitudes, and Beliefs of Youth Club Athletes Toward Sport Specialization and Sport Participation. Orthop J Sports Med, 6(5), 2325967118769836. https://doi.org/10.1177/2325967118769836 Carder, S. L., Giusti, N. E., Vopat, L. M., Tarakemeh, A., Baker, J., Vopat, B. G., & Mulcahey, M. K. (2020). The Concept of Sport Sampling Versus Sport Specialization: Preventing Youth Athlete Injury: A Systematic Review and Meta-analysis. The American Journal of Sports Medicine, 48(11), 2850-2857. https://doi.org/10.1177/0363546519899380 Côté, J., Horton, S., MacDonald, D., & Wilkes, S. (2009). The Benefits of Sampling Sports During Childhood. Physical & Health Education Journal, 74, 6-11. Dr. Dan Exete, D. A. J., Dr. Carolyn Broderick, Dr. Ian Murphy, Dr. Mark Fulcher, Dr. Stephan Praet. (2022). SPORT SPECIALISATION IN YOUNG ATHLETES POSITION STATEMENT Giusti, N. E., Carder, S. L., Vopat, L., Baker, J., Tarakemeh, A., Vopat, B., & Mulcahey, M. K. (2020). Comparing Burnout in Sport-Specializing Versus Sport-Sampling Adolescent Athletes: A Systematic Review and Meta-analysis. Orthop J Sports Med. 8(3), 2325967120907579. https://doi.org/10.1177/2325967120907579 Haraldsdottir, K., & Watson, A. M. (2021). Psychosocial Impacts of Sports-related Injuries in Adolescent Athletes. Curr Sports Med Rep. 20(2), 104-108. https://doi.org/10.1249/jsr.0000000000000809



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