

Developmental Trajectories and Training Histories of Canadian and Australian Paralympic Athletes

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redefine THE POSSIBLE.



Pathway to Expertise



WHEELCHAIR
BASKETBALL
CANADA




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Systematic Review

Very little examining Para sport athletes' development trajectories and training histories

Dehghansai, N., Lemez, S., Wattie, N., & Baker, J. (2017). A systematic review of influences on development of athletes with disability. *Adapted Physical Activity Quarterly*, 34(1), 72-90



Wheelchair Basketball Examined Wheelchair Basketball Athletes' Developmental Trajectories and Training Histories



Dehghansai, N., Lemez, S., Wattie, N., & Baker, J. (2017).
Training and development of Canadian wheelchair basketball
players. *European Journal of Sport Science*, 17(5), 511-518

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Developmental Milestones:

- Indicators of career advancement and sporting progression
- i.e.:
 - Starting various forms of training
 - Developing relationship with coaches
 - Making a conscious decision to become an elite athlete

Performance Milestones:

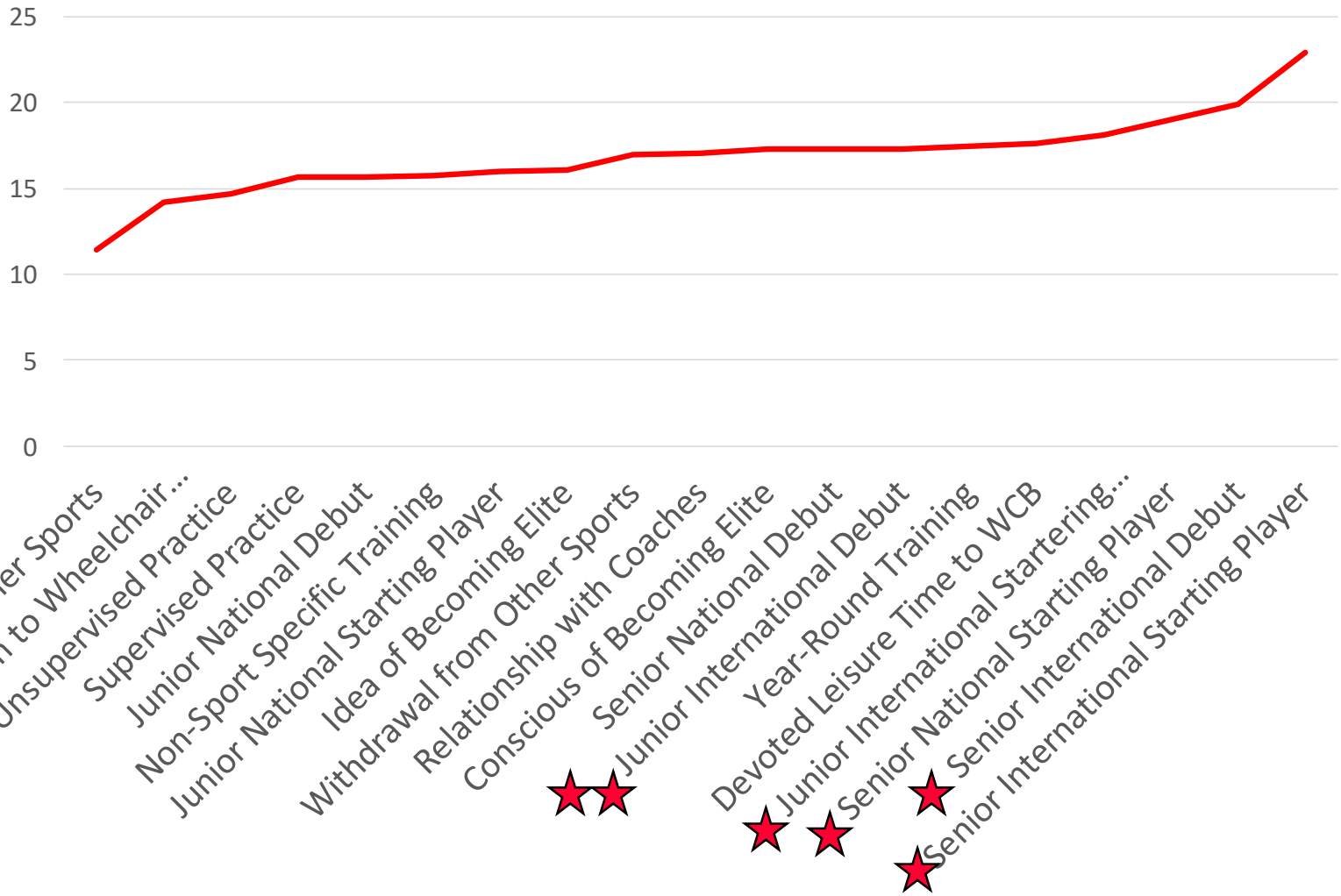
- Successful outcomes/events that can increase athlete commitment, enhance motivation and alter resource availability
- i.e.:
 - Debut at the national/international level of competition

Participation:
Introduct

Player



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Developmental Trajectories:

- Athletes with a congenital impairment reached **developmental milestones** at a significantly younger age.
- Athletes with an acquired impairment reached **late key performance milestones** at a similar age.

Participation in Other Sports
 Introduction to Wheelchair...
 Unsupervised Practice
 Supervised Practice
 Junior National Debut
 Non-Sport Specific Training
 Junior National Debut
 Idea of Becoming Elite
 Withdrawal from Other Sports
 Relationship with Coaches
 Conscious of Becoming Elite
 Senior National Debut
 Junior International Debut
 Year-Round Training
 Devoted Leisure Time to WCB
 Junior International Starting...
 Senior National Starting Player
 Senior International Debut
 Senior International Starting Player



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Implications:

- Timing of athletes' injury
- Underlying mechanisms

Future Research:

- Training and Other Sport Histories
- Reduce Noise in Acquired Group

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Paralympian Search

To develop a better understanding of athletes attending the Paralympian Search

Dehghansai, N., & Baker, J. (In press). Searching for Paralympians: Characteristics of participants attending 'search' events. *Adapted Physical Activity Quarterly*, 22 pages.

New grouping for nature of impairment

- Congenital
- Acquired pre-adolescence (Birth to 11.99 years old)
- Adolescence (12 to 17.99 years old)
- Early Adulthood (18 to 24.99 years old)
- Adulthood (25 years old and older)

Dehghansai, N., & Baker, J. (In press). Searching for Paralympians: Characteristics of participants attending 'search' events. *Adapted Physical Activity Quarterly*, 22 pages.

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- Paralympian Search Survey
- 225 participants from 10 events
- Athletes in later acquired groups (i.e., early adulthood/adulthood) started Para sport and sport-specific training at a significantly later age.
- Athletes with a congenital impairment spent less time (in years) in other Para sports in comparison to the early adulthood and adulthood group

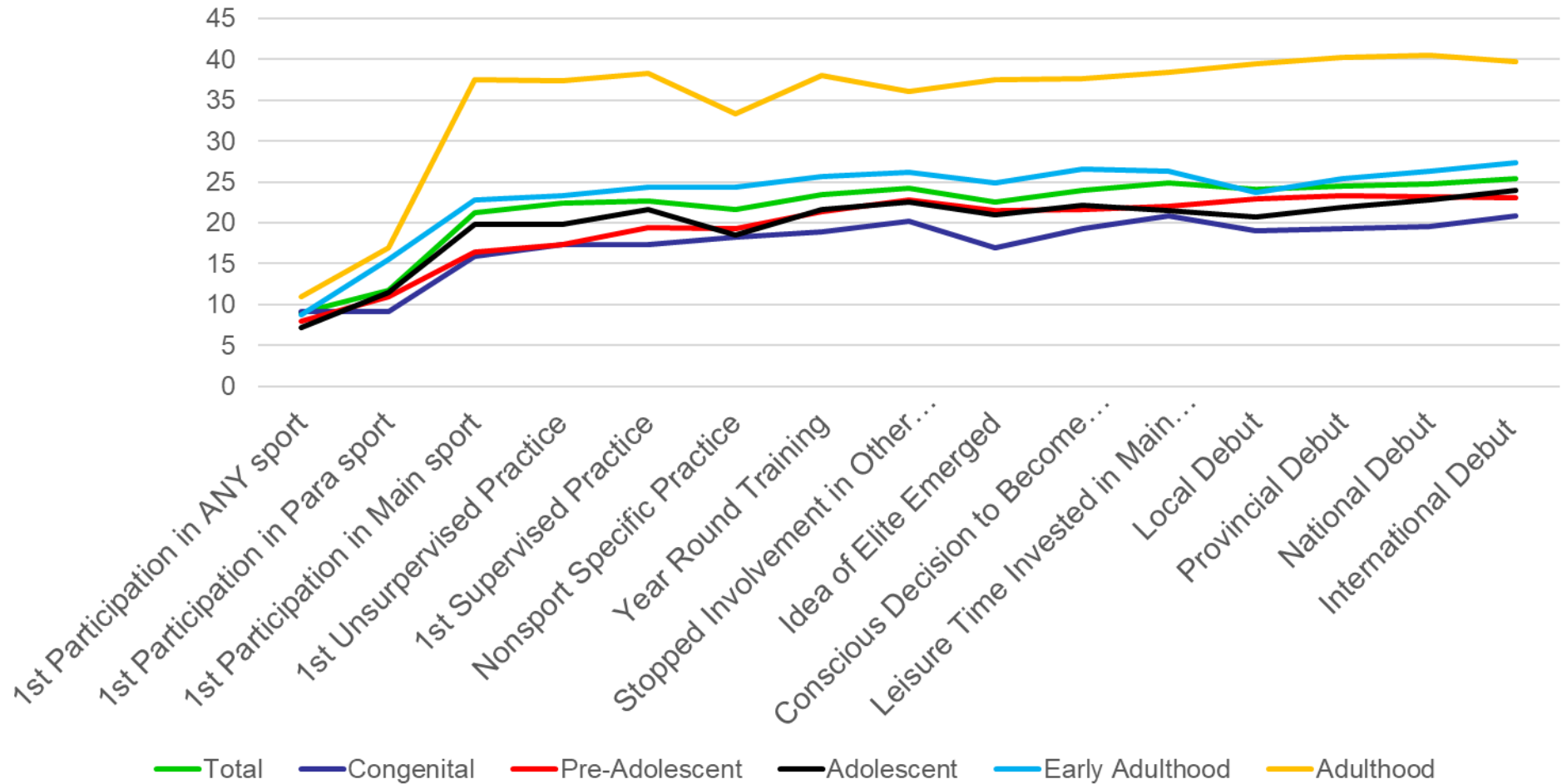
Dehghansai, N., & Baker, J. (In press). Searching for Paralympians: Characteristics of participants attending 'search' events. *Adapted Physical Activity Quarterly*, 22 pages.

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**Canadian and Australian
Paralympic Athletes**
Comprehensive examination
of Para sport athletes'
developmental trajectories
and training histories

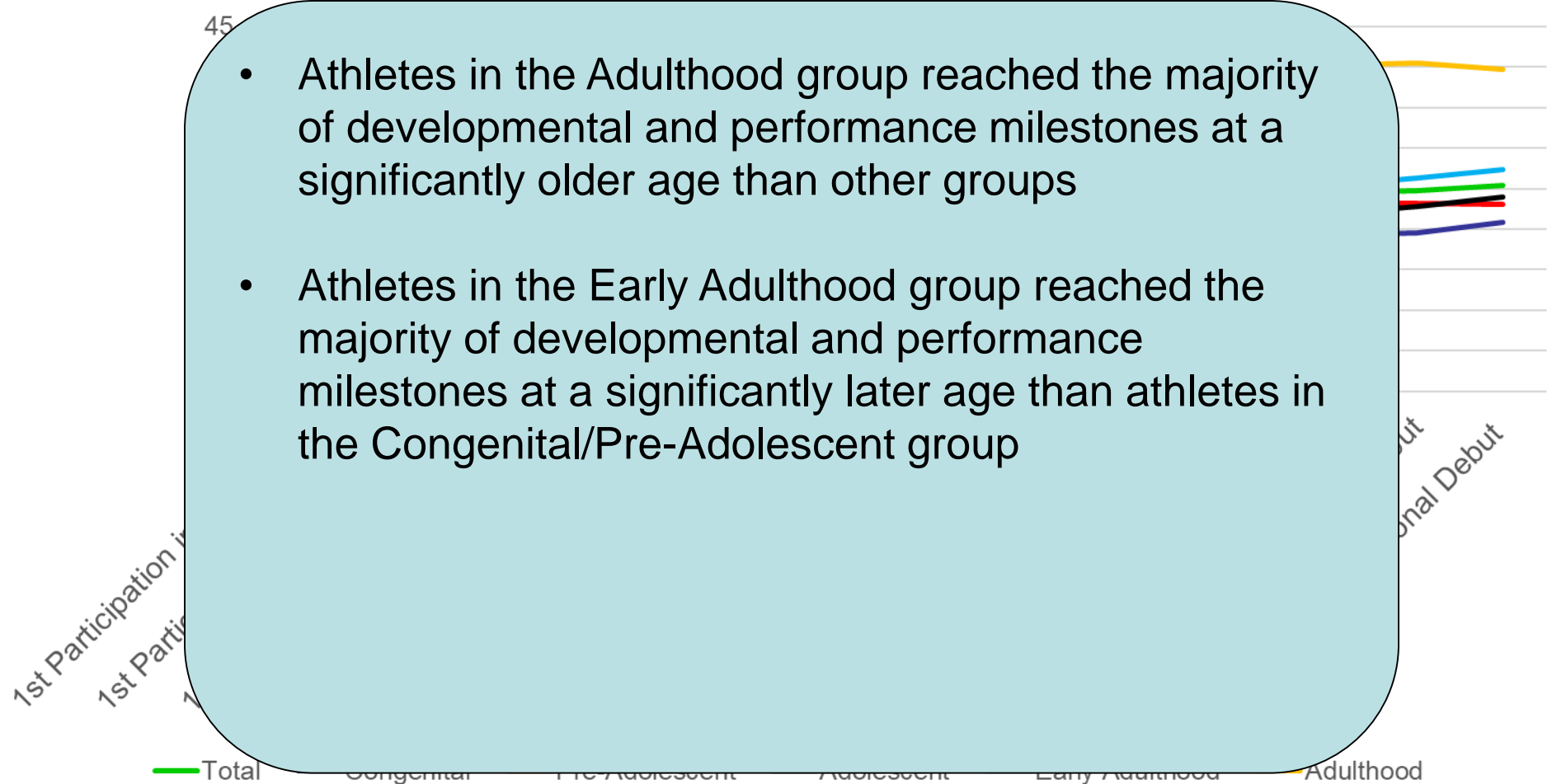
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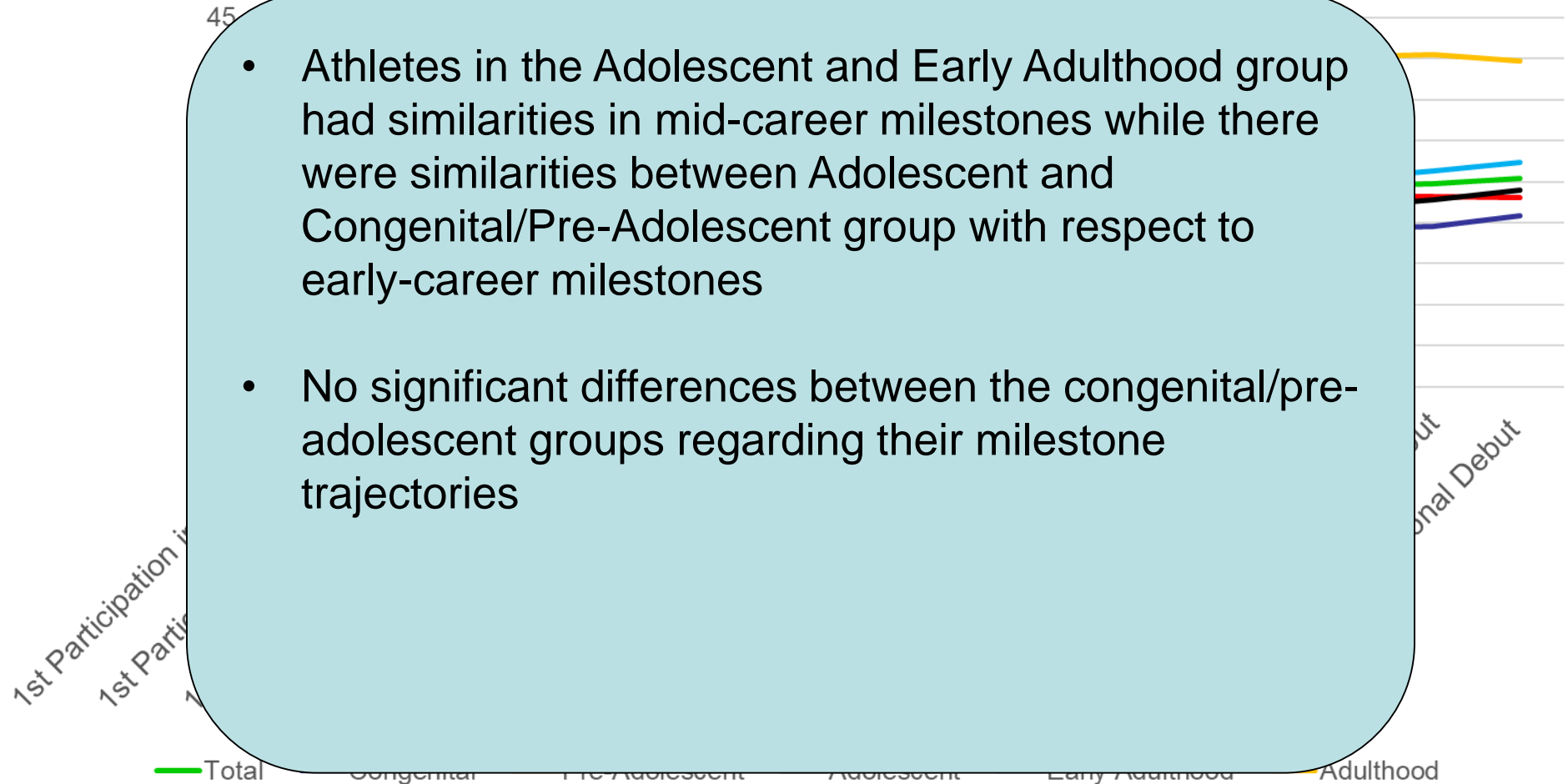
- Athletes in the Adulthood group reached the majority of developmental and performance milestones at a significantly older age than other groups
- Athletes in the Early Adulthood group reached the majority of developmental and performance milestones at a significantly later age than athletes in the Congenital/Pre-Adolescent group



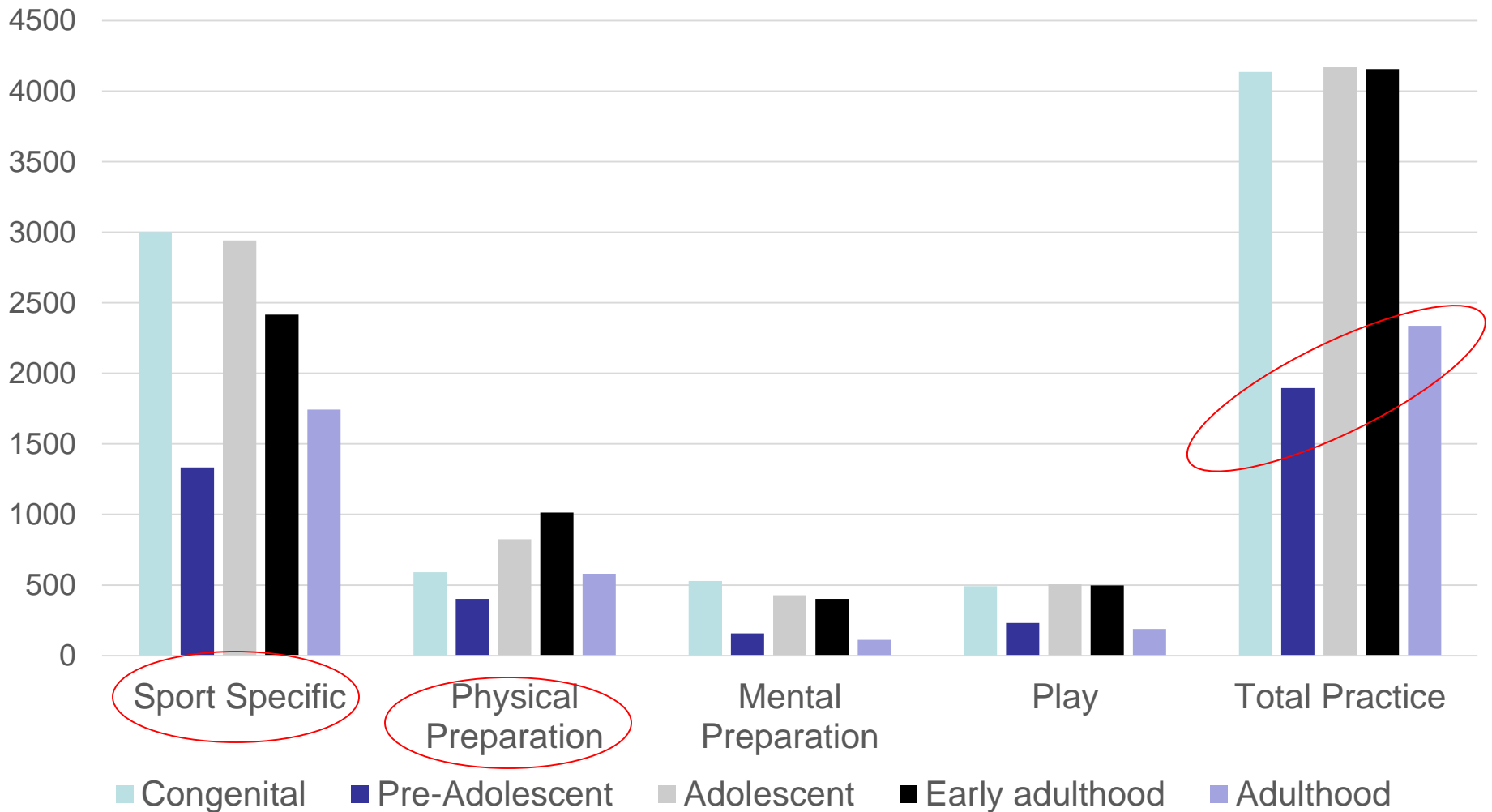
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- Athletes in the Adolescent and Early Adulthood group had similarities in mid-career milestones while there were similarities between Adolescent and Congenital/Pre-Adolescent group with respect to early-career milestones
- No significant differences between the congenital/pre-adolescent groups regarding their milestone trajectories



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Study 5: CA & AUS Para Athletes

- AB Sports (89%)
 - PA (69%)
 - AD (94%)
 - EA (84%)
 - AH (97%)
- Experience
 - 9.47 years (SD=7.83)
 - Recreational (n=5) to International (n=10)

Study 5: CA & AUS Para Athletes

- Other Para Sports:
 - 2.13 sports (SD=1.47)
 - Most common sports:
 - Wheelchair Basketball (n=24)
 - Para Swimming (n=15)
 - Wheelchair Tennis (n=13)
 - Para Athletics (n=12)

Study 5: CA & AUS Para Athletes

- Most common setting:
 - Club (n=86)
 - Community (n=12)
 - School (within, n=12; between, n=6)
- Most common sport delivery:

General = Train and compete with AB

Parallel = Train with AB but compete in Para setting

Unified = AB and Para train and compete in Para setting

Segregated = Train and compete with Para athletes only

Study 5: CA & AUS Para Athletes

- Most common setting:
 - Club (n=86)
 - Community (n=12)
 - School (within, n=12; between, n=6)
- Most common sport delivery:
 - General (57%)
 - Parallel (17%)
 - Unified (15%)
 - Segregated (11%)

Implications & Future Work

- No single pathway
 - Support and resources will differ
- Setting = club-driven/sport delivery = general
 - Detrimental or beneficial experience?

Implications & Future Work

- In-depth training analysis/sport-specific considerations
- External factors (i.e., family, resources, funding)
- In-depth interviews to accommodate quantitative analysis

Questions?

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Funding / Support

SSHRC  CRSH



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Patrimoine
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