

SPORT SPECIALIZATION PATTERNS IN PROFESSIONAL WOMEN'S ICE HOCKEY PLAYERS

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BACKGROUND

- Early year-round training in a single sport such as ice hockey has been consistently associated with high rates of overuse injuries.
- Despite the increasingly well-known risk of early specialization, many young athletes and their families elect to specialize in a single sport due to the perception that this practice gives them the best chance of attaining elite athletic status.
- However, early specialization in women's ice hockey has not previously been shown to be reliably associated with attainment of elite levels of performance.

OBJECTIVE

- The purpose of this study was to characterize training practices and attitudes of professional women's ice hockey players regarding single sport specialization.

METHODS

- Institutional Review Board- approved study
- A survey (Figure 1) was created and given to players of two National Women's Hockey League (NWHL) teams at the end of the 2018-2019 season
- Inclusion criteria
 - Female professional ice hockey players
 - Age >18 years
- Informed consent sought and given
- Survey completion voluntary and anonymous

METHODS

- Players self-reported:
 - Years playing organized ice hockey
 - Age of specialization
 - # sports played prior to specialization
- Descriptive statistics calculated
 - GraphPad Prism 8, GraphPad Software, (La Jolla, CA)



NWHL Sport Specialization Survey

1. For how many years have you been playing organized ice hockey?

2. At what age did you specialize in ice hockey (age you played ONLY ice hockey)?

3. How many sports did you play prior to specializing in ice hockey?

4. If you played other sports, how did your experience with other sports affect your career as an ice hockey player? **CIRCLE ONE:**
 - a. Positively affected my career
 - b. Had no effect on my career
 - c. Negatively affected my career

Figure 1. Specialization survey completed anonymously by the athletes.

RESULTS

- 54 players completed the survey
 - 100% response rate
 - Average age = 25 years (+/- 2.5, range 21-31 years)
- Average years played ice hockey
 - 19.4 +/- 3.4 years
- Average age of ice hockey specialization
 - 16.1 +/- 3.3 years old
- Number of sports played prior to specialization
 - 3.5 +/- 1.4 sports
- 49 players (91%) reported that playing multiple sports **POSITIVELY** affected their ice hockey careers

CONCLUSIONS

- Professional women's ice hockey players:
 - Are introduced to the sport at a young age
 - e.g., childhood/ and pre-adolescence
 - Specialize exclusively at age 16 years
 - e.g., mid-adolescence
 - ~2 years later than elite male hockey players
- Participate in multiple sports prior to focusing on ice hockey
- Value the early experience of sports sampling

SIGNIFICANCE

- This results of this study may be used to educate young female players and their parents about sport specialization.
- The results specifically may be used to debunk the common belief that players must specialize in ice hockey early - prior to adolescence - to successfully achieve elite levels of performance.



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