



**UNIVERSITY OF
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Asthma and Youth Soccer

**An investigation into the level of asthma awareness and training among
youth soccer coaches**

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Faculty/Presenter Disclosure

- Faculty: Chandu Sadasivan
- Relationships with financial sponsors:
 - Grants/Research support: N/A
 - Speakers Bureau/Honoraria: N/A
 - Consulting Fees: N/A
 - Patents: N/A
 - Other: N/A



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Overview

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Background

- Asthma is the most common chronic disease amongst children (1, 2, 3)
- EIB occurs in 90% of asthmatics and up to 10% of people not previously diagnosed with asthma (4, 5)
- EIB prevalence varies according to sport and environmental conditions (4, 6)
- Asthma is a barrier to children participating in physical activity (7, 8)
- 61 sports-related asthma deaths in the US 1993-2000 (9)
- No asthma protocols in place for soccer coaches

Research Objectives

To investigate:

1. youth soccer coach awareness about asthma and the current level of asthma-related training offered to soccer coaches
2. whether there is a need for asthma-related training for coaches
3. if there are any barriers to administration of such training by assessing coaches' attitudes regarding asthma

Research Methods

- Worked in collaboration with the Edmonton Minor Soccer Association (EMSA)
- 2300 volunteer youth soccer coaches were invited to participate in completing an online survey
- Survey consisted of 22 questions, some questions were selected from previous literature (10)
- Survey was sent out using SurveyMonkey and was open for one month (11)
- Descriptive statistical analysis, followed by chi-square analysis

Respondent Demographics

- Response rate: 22.3%
- 33.26% responded that they or their child had asthma
- Most coaches were inexperienced, coached younger age groups, and majority had some form of training

Coaches' Asthma Awareness and Knowledge

- 93.18% had not received asthma-related training at any coach certification level
- Majority knew how to treat an asthma attack, but had mixed knowledge on asthma attack prevention
- Knowledge on asthma attack prevention was positively correlated with experience, age level, confidence levels, and asthma experience

Figure 1. Responses to asthma attack prevention question filtered by age level coached.

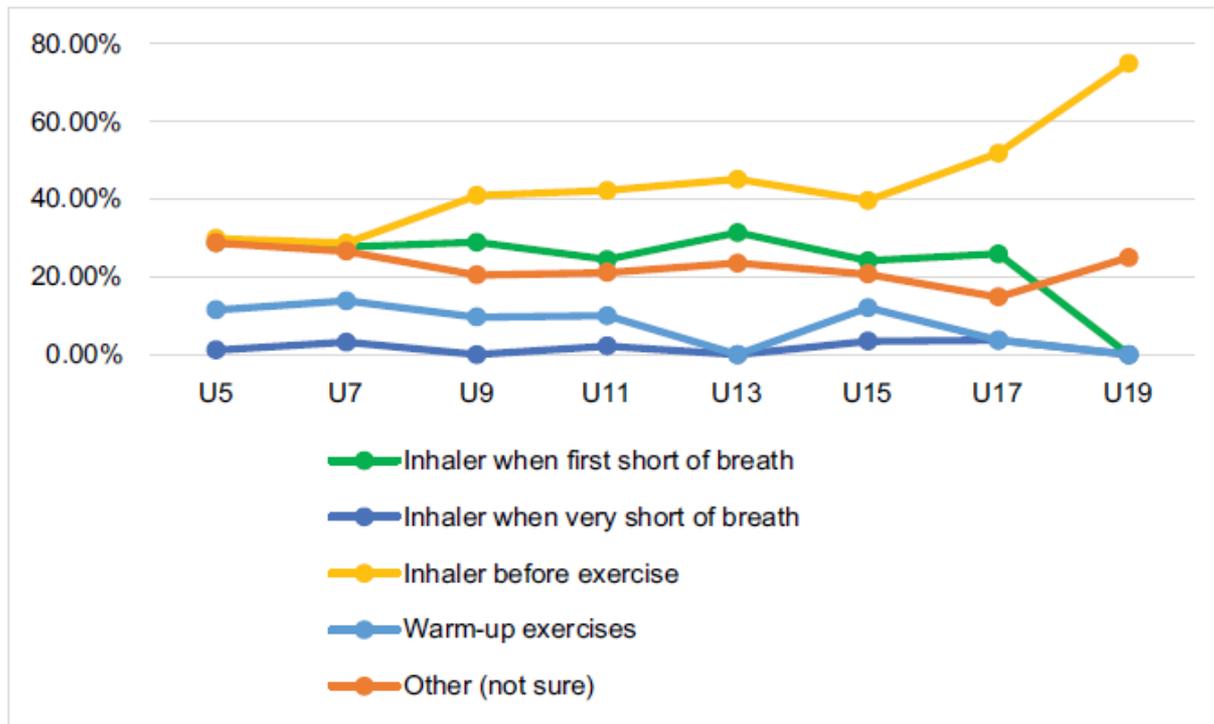
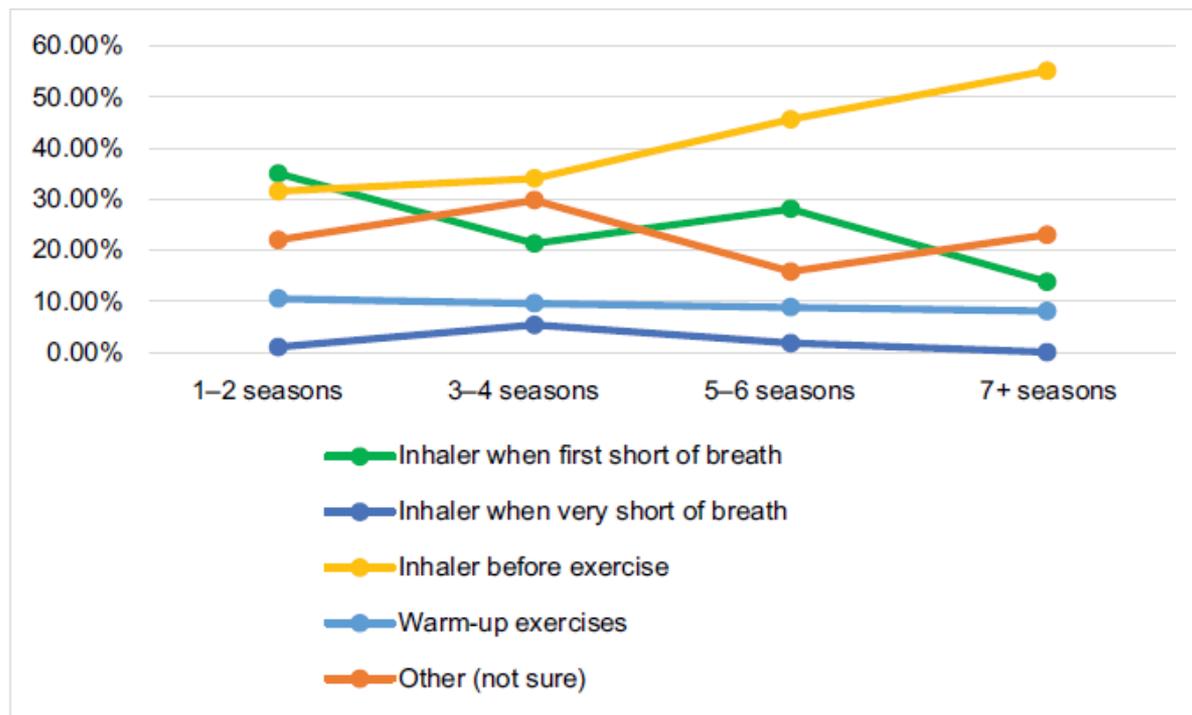


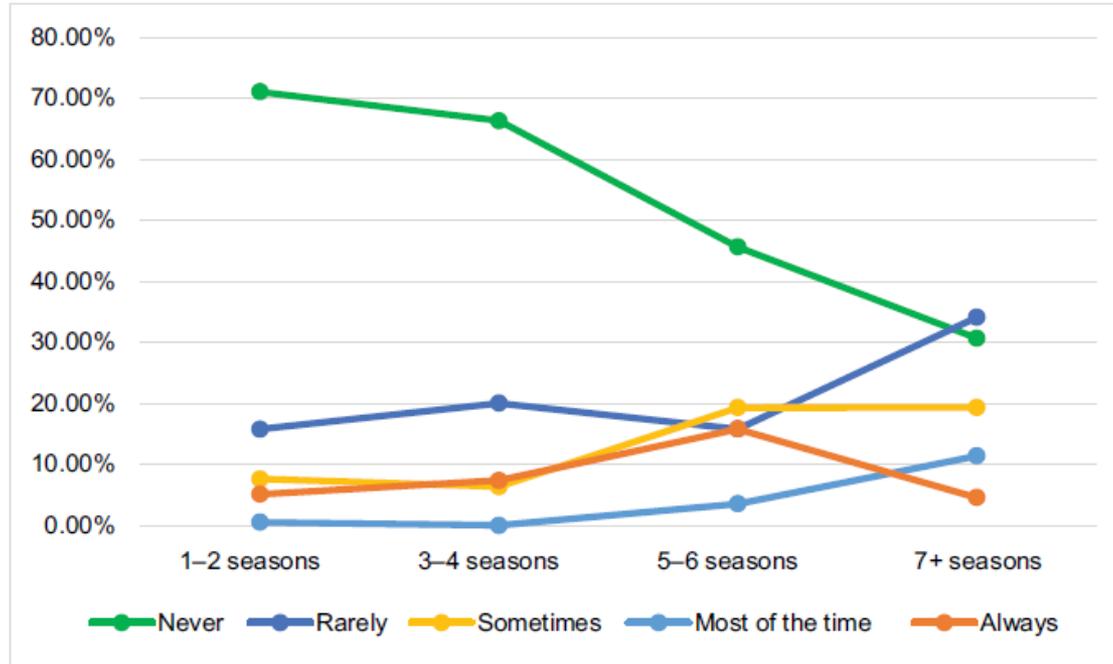
Figure 2. Responses to asthma attack prevention question filtered by number of seasons coached.



Need for asthma related training

- 51% of coaches were unsure how many players had asthma or how many asthma related incidents they had encountered
- Only 7% of coaches always discussed an action plan to follow if a player were to have an asthma attack
- 72% of coaches felt that asthma management was not just the responsibility of player/parent

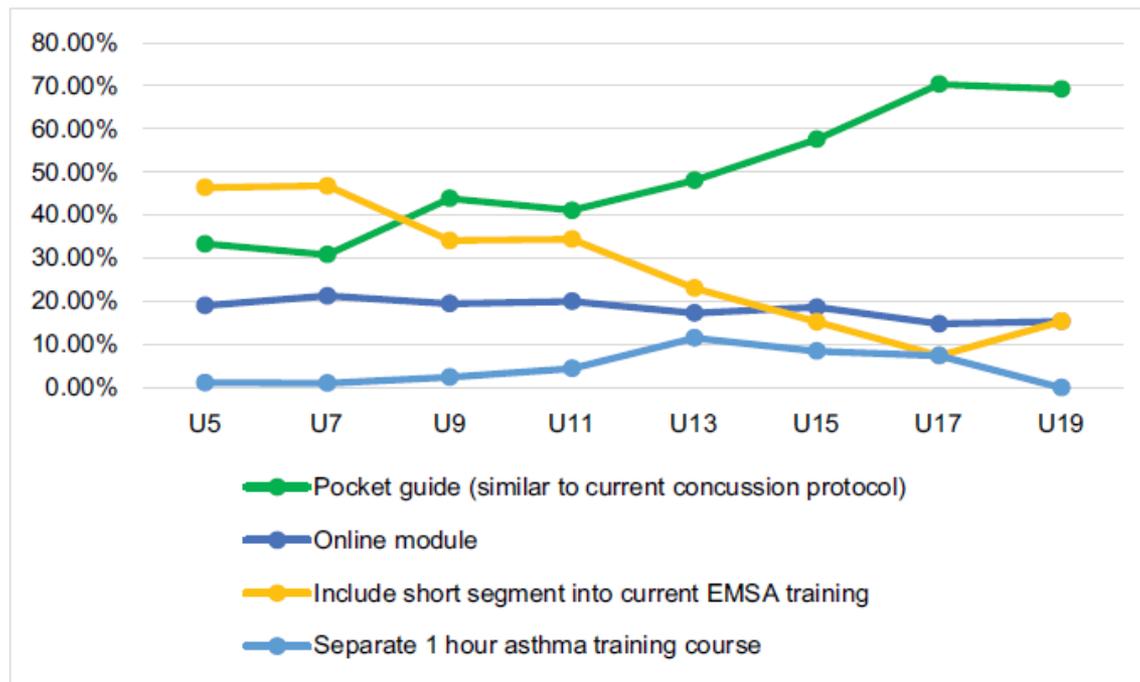
Figure 3. Responses to discussion of a plan to follow should a player suffer an asthma attack filtered by number of seasons coached



Barriers to administration of training

- The majority of coaches disagreed with the statements “asthma is adequately covered in current coaching courses,” “asthma does not affect many children,” and “youth soccer coaches have adequate knowledge in asthma management.”
- At the same time, the majority of coaches agreed with the statement that “asthma is already appropriately managed by parents and physicians.”
- Respondents said that pocket guide would be the most suitable way to administer training ($p < 0.05$)

Figure 4. Responses to best method to administer asthma management training filtered by age level coached.



Discussion

- It would be appropriate to have coaches with an adequate knowledge of:
 1. how to recognize asthmatic symptoms
 2. the steps to prevent an asthma attack
 3. how to treat or assist a player who may be having an asthma attack
- Experienced coaches and coaches at older age groups had better knowledge

Discussion

- Lack of identification is clear amongst coaches
- Importance of warm up exercises
- Benefits of supervised aerobic exercise for asthmatics
- Coaches appear receptive to learning more about asthma

Limitations

- Issues inherent with survey research- response bias, low response rate, social desirability
- Use of closed-ended questions
- Did not use a fully validated survey tool

Future Directions

- Developing and testing the efficacy of soccer specific asthma management protocol
- Look at knowledge of coaches in other sports
- Future larger scale studies in different geographic areas are warranted

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