

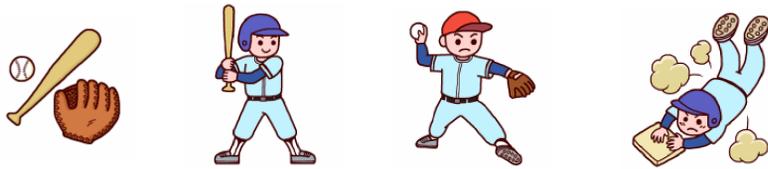
The survey of conditions and measures concerning junior high school baseball players' pains in Otawara city

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Introduction

➤ There have been many reports on baseball injury of high school and primary school students. However, there are few studies of junior high school students. We investigated physical pain and measures for pain of the junior high school students of baseball club in Otawara city.



Materials and Methods

➤ Self completion questionnaire survey administered in 242 junior students of 11 baseball club in Otawara city.

- **Have you performed a warm up?** (Yes/No) () minute
<Free choice>
(jogging / stretch / dash / catch / the others [])
- **Have you performed a cool down?** (Yes/No) () minute
<Free choice>
(jogging / stretch / dash / massage / the others [])
- **How much time do you spend on the stretch?** () minute
- **Have you had a pain in the body by baseball?** (Yes/No)
If you chose 'Yes', please answer where it hurts and show in figure the part of your body hurts.
(shoulder / elbow / hand / waist / neck / back / thigh / knee / ankle)

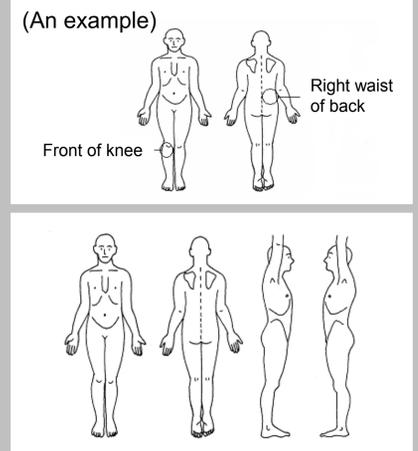


Fig. 1: Self completion questionnaire

Results

- 197 (81%) junior high school students responded.
- 84% of them have pain in any part of their body.

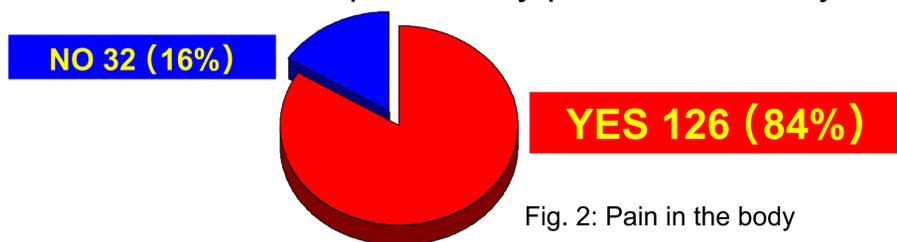


Fig. 2: Pain in the body

- Several conditioning methods have been performed: warm up (64%), cool down (49%), and stretching (58%).

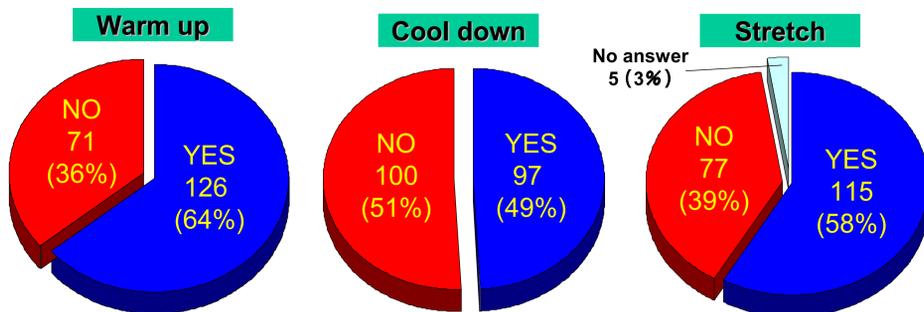


Fig. 3: Several conditioning methods

- The mean times of warm up, cool down and stretching were 29.5, 6.3 and 7.5 minutes, respectively.

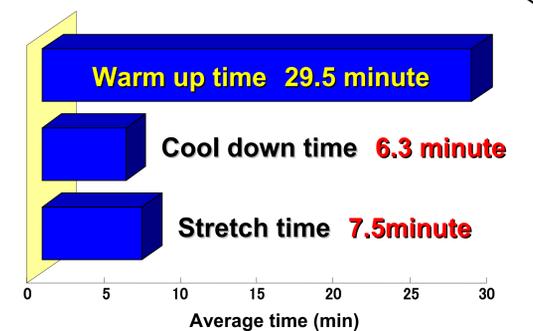


Fig. 4: Mean times

- Only 33-50% of the students who had the pain performed some conditioning methods (warm-up, cool-down, or stretch).

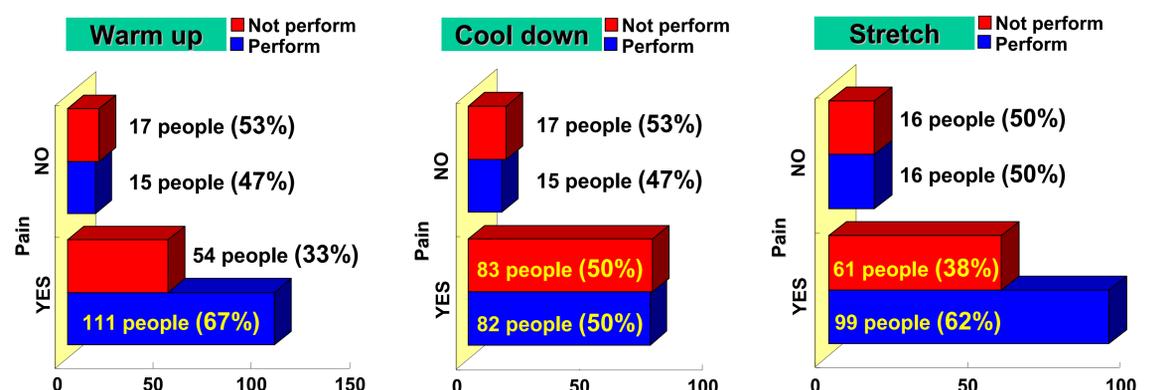


Fig. 5: Strategies for preventing the pains

Discussion and Conclusion

- For junior high school baseball players:
 - Over 80% of the students had the pain in any part of their body (Fig. 2).
 - Mean stretching time of the students was 7.5 minutes (Fig.4).
 - ✗ Former studies reported that an adequate time for stretching was at least 20 minutes.
 - Only 33-50% of the students who had the pain performed some conditioning methods (warm-up, cool-down, or stretch) (Fig. 5).
- Body pain is associated with the inadequate attention and the duration of conditioning.
- An important factor of pain could be depend on the lower awareness for the injury prevention.

