INTRODUCTION

While athletic trainers are primarily responsible for concussion management within the secondary school, they work closely with their team physician and community-based physicians who manage concussions outside of the school setting.

To establish proper communication with the athletic trainer, it is important to understand physicians’ current knowledge and familiarity of concussion management.

However, little is known about the current concussion management and referral patterns of physicians associated with secondary schools.

The purpose of this study was to determine whether physicians’ association with a secondary school influences their concussion management and referral patterns for adolescent athletes following a sport-related concussion.

METHODS

Design and Participants

- Cross-sectional, self-reported online survey
- 94 physicians (4.7% response rate) from a convenience sample of physician members of the American Academy of Family Physician’s National Research Network and American Osteopathic academy of Sports Medicine

Participants included 58 males, 18 females, 18 missing.

- The average age of participants was 46.7 ± 11.4 years

Procedures

- Participants were solicited via email to complete the Physicians’ Beliefs, Attitudes, and Knowledge of Pediatric Athletes with Concussions (BAKPAC-PHYS) survey

Instrumentation and Main Outcome Measures

- The BAKPAC-PHYS consisted of several multipart questions to assess physicians’ current concussion management practices regarding administration and follow-up concussion testing and referral patterns of physicians associated with secondary schools

- The dependent variables were participants’ responses to questions regarding concussion management/referral patterns

Statistical Analyses

- Descriptive analyses (mean ± SD, frequencies) were used to describe overall practices
- Mann-Whitney U tests were utilized to determine differences regarding association roles in baseline and follow-up concussion testing

RESULTS

- On average, team physicians (n=56) managed 38.9 ± 48.1 concussions per year while community-based physicians (n=36) managed 3.1 ± 4.3 concussions
- A significant group difference was found regarding baseline concussion assessment testing (P = .001); 77.8% of team physicians (n=28) did not offer baseline testing in their practice, while 58.3% of community-based physicians (n=21) did not
- There was no significant difference regarding post-concussion testing (P = .182)
- Regardless of physician association, the most commonly used concussion assessment tools during both baseline testing and post-concussion testing was computerized neurocognitive tests (Figure 1)

CONCLUSIONS

- Our results highlight that team physicians have better established relationships with a variety of health care providers and are more likely to include athletic trainers in their referral process for concussed adolescent athletes

- Athletic trainers should continue to strengthen their relationships with their team physician and seek out opportunities to educate and collaborate with community-based physicians who are not associated with their secondary school to build a stronger interprofessional concussion management teams (Table 1)