

Network News

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THE ATHLETIC TRAINING PRACTICE-BASED
RESEARCH NETWORK
(AT-PBRN)

Director's Update

I hope the fall sports season has been treating you all well. It has been a very busy start to the new academic year for us at ATSU, with an incoming class of 18 students, several of whom have joined the PBRN, as their graduate assistantships are at secondary schools. We also welcome three college sites: Gustavus Adolphus College, Springfield College, and Virginia Wesleyan College who have started using the CORE-AT EMR. In light of our expansion into settings other than the secondary school, we have broadened the name of the PBRN to *The Athletic Training Practice-Based Research Network*.

In this issue we highlight one of our new clinical practice sites - Springfield College - where faculty members are formally integrating the CORE-AT EMR system and the AT-PBRN framework into their undergraduate athletic training program. In this feature, program director, Dr. Mary Barnum, Ed.D., ATC, explains how Springfield College plans on incorporating the CORE-AT EMR into their students' clinical and classroom education and describes the benefits of using the system as an educational tool.

We are also excited to announce our first official research partnership with the University of South Florida. This partnership brings an additional 10 secondary schools into the network. Dr. Jeff Konin, PhD, ATC, PT, FACSM, FNATA, and Dr. Karen Liller, PhD, EdS, MA, will serve as academic coordinators for the USF sites and bring an expertise in epidemiology to the network.

Lastly, I will be presenting the first snapshot of the patient and practice characteristics of the AT-PBRN at the Association of Schools of Allied Health Professions meeting in October. In this retrospective analysis, de-identified data from 2523 patients treated across 3140 encounters between September 1, 2009 and April 1, 2011 were analyzed. The most common reason patients sought care was for a current injury (61.3%), followed by preventative services (24.0%) and new injuries (14.7%). The most common diagnoses included ankle sprain/strain, hip sprain/strain, concussion, contusion, and knee pain. The most frequent procedures were the athletic trainer evaluation (53.9%), hot/cold pack application (26.0%), strapping (10.3%), and therapeutic exercise (5.7%). The median number of treatments per injury was 3 (IQR=2, 4; range 2-19). These preliminary data begin to describe the types of services provided by AT's within the AT-PBRN and should serve as a beginning for future practice characteristic analyses and intervention studies. I am excited to present this first analysis and hope it is the start of a long line of studies coming from the AT-PBRN.

Tamara

Call for Proposals!

Do you have something interesting to share with the other members of the Athletic Training Practice-Based Research Network? Would you like to write a short article for the next newsletter? Potential topics could include:

- ◆ Research updates for your clinical practice site or institution,
- ◆ Clinical case studies or case series reports,
- ◆ Academic or research achievements of students or faculty,
- ◆ Other information relevant to members of the AT-PBRN.



With ideas, please contact Mariel Yakuboff, Research Coordinator at A.T. Still University, at myakuboff@atsu.edu or 480.219.6178 by 12/1/2011.

Validity of the Foot and Ankle Ability Measure in Athletes With Chronic Ankle Instability

Carcia CR, Martin RL, Drouin JM. J Athl Train. 2008;43(2):179-183.

The CORE-AT Electronic Medical Record (EMR) has a variety of outcomes tools embedded within the system to assist clinicians in providing a comprehensive patient evaluation. These tools are automatically generated by the system based on the patient's age and location of injury. Patients are prompted to complete these instruments at standard time points during their care. The Foot and Ankle Ability Measure (FAAM) is one of the featured outcomes instruments automatically generated with the diagnosis of foot or ankle injuries. The FAAM consists of 29 questions that make up two subscales: one related to Activities of Daily Living (FAAM-ADL) and one related to sport-specific (FAAM-Sport) questions. Questions in the sports subscale are related to higher level functional activities (e.g., running, jumping, landing, cutting, starting, and stopping) relevant to athletic populations, making it an appealing instrument for athletic training clinicians. Scores on each subscale of the FAAM are presented individually as a percent of 100 with higher scores representing higher levels of function for each subscale.

Until recently, little was known about the use of the FAAM in patients with Chronic Ankle Instability (CAI). In this study, Caria et al., (2008) investigated the validity of the FAAM in NCAA Division II athletes with (n=15) and without (n= 15) chronic ankle instability (CAI). Athletes were included in the CAI group if they had a history of at least two lateral ankle sprains, experienced episodes of "giving way", reported residual symptoms (i.e. pain, weakness, swelling, or instability) during functional activities, and were limited in their ability to participate in sports activities. Additionally, they had to express willingness to participate in treatment for their condition. Fifteen healthy volunteers were selected for the healthy group if they did not have a history of ankle sprain, lower extremity fracture, or concussion within the last 6 months. Athletes with CAI reported lower FAAM-ADL scores (88 ± 7.7) than athletes without CAI (100 ± 0.0), $p < .01$.

The last question on the FAAM prompted athletes to rate level of ankle function as *normal*, *nearly normal*, *abnormal*, or *severely abnormal*. The FAAM-ADL scores were greater in participants who indicated that their ankles were *normal* (98 ± 6.3) than in those who indicated that their ankles were *nearly normal* or *abnormal* (87 ± 6.6), $p < .01$. Compared with CAI athletes (76 ± 12.7), healthy athletes scored higher (99 ± 3.5) on the FAAM-Sport, $P < .001$. The FAAM-Sport scores were higher in those who indicated that their ankles were *normal* (96 ± 6.9) than in those who indicated that their ankles were either *nearly normal* or *abnormal* (71 ± 11.1), $P < .001$.

All of the athletes in the healthy group and 4 athletes in the CAI group rated their ankles as *normal*. The 4 athletes in the CAI group who rated their ankles as *normal* produced FAAM scores that were lower in both ADL (89 ± 11.3) and sports (97 ± 9.8) subscales than in those who were classified as healthy (ADL = 100 ± 0 , sports 98 ± 3.5 , $P = .001$). It is interesting to note that while these 4 athletes classified their ankles as *normal*, both subscale scores of the FAAM were lower than those of the "healthy" group.

"Gathering patient outcomes specific to a particular condition can provide meaningful insight regarding the patient's perspective ..."

The results of this study suggest that athletes with CAI experience functional difficulty related to ADL and sports-specific tasks. Furthermore, this study provides evidence that the FAAM is a clinically relevant tool to use with athletes. This study highlights the importance of obtaining information from the patient’s perspective through the use of patient-rated outcome measures. Using a region-specific, patient-rated outcome measure such as the FAAM can provide meaningful insight regarding the patient’s perspective of his/her condition that may identify limitations unknown to the clinician and may assist in developing the patient’s rehabilitation plan. Because repetitive lateral ankle sprains are commonly treated by athletic trainers, reviewing question responses on the FAAM (which can be viewed within the CORE-AT EMR) can be helpful in determining where an athlete’s specific deficits lie. While this study demonstrates evidence of construct validity in administering the FAAM in collegiate athletes with CAI, it would be helpful to gain similar evidence in a large sample of adolescent athletes.

“...the FAAM is a clinically relevant tool to use with athletes.”

Marief K. Yakuboff, MS, ATC

Athletic Training Practice-Based Research Network Members



- ◆ Total number of AT-PBRN Clinical Practice Sites: 50
- ◆ Athletic Trainers using the CORE –AT EMR: 66
- ◆ High Schools in the AT-PBRN: 45
- ◆ Collegiate members of the AT-PBRN: 4
- ◆ Clinic members of the AT-PBRN: 1
- ◆ States represented in the AT-PBRN: AZ, CT, FL, KS, MA, MN, MO, NH, VA, WI

PBRN Clinical Practice Highlight: Student Athlete Foundation of Kansas (SAF-K)



Profile

Name: Bethany Rogers, MS, ATC

Positions: SAF-K, Chief Executive Officer and Clinical Athletic Trainer (JC Harmon High School)

Please provide insight regarding your leadership and administrative role within your professional position.

Under the guidance of the SAF-K (Student Athlete Foundation of Kansas) Board of Directors and SAF-K President, I run the day-to-day operations of the organization. I oversee the 7 other full time athletic trainers and coordinate per diem athletic trainers. I am the contact person for the athletic directors of the schools we cover if they have any issues with either the athletic trainer or SAF-K organization. I coordinate outreach coverage of local tournaments, oversee the ordering/maintenance of supplies, plan and organize monthly meetings of athletic trainers, facilitate the hiring process when needed, and many more tasks/projects related to running the organization.

How does the SAF-K program work?

SAF-K was founded by an orthopedic physician, Dr. John Vani, and an athletic trainer, Josh Adams, in response to the lack of athletic training coverage in the area. The main goal of SAF-K is to ensure athletic training coverage for high schools in Wyandotte and Leavenworth counties in Kansas. Started in 2007, SAF-K currently provides full time athletic training coverage to 8 high schools. Athletic trainers are hired by SAF-K, and then are assigned to a local high school similar to any other outreach program. SAF-K's team physicians are from a local orthopedic practice, OrthoKC. OrthoKC physicians provide medical supervision of the athletic trainers, free Saturday morning injury clinics during football season, reduced priced PPEs, and medical care to our uninsured athletes. SAF-K strives to work with other community health organizations to ensure that the student athletes receive the care they need. In addition to athletic training coverage, SAF-K provides a program for students interested in athletic training or other sports medicine professions. Many students don't know the options they have as they complete high school and look towards college and career, so this is a great opportunity to broaden their knowledge on possible career choices.

How is SAF-K funded?

SAF-K is set up as a tax exempt 501c3 organization. At this time, SAF-K is primarily funded by Providence Medical Center and Saint John Hospital, both members of Sisters of Charity of Leavenworth Health System. Additional funding from other community partners is a work in progress. SAF-K receives minimal funding from things such as contracted community event coverage, PPEs, etc.

Who does the network serve ?

SAF-K was originally started to serve the student-athletes in inner city Kansas City, Kansas. We have since expanded to cover three other local school districts who would otherwise lack athletic training coverage. The five high schools of the Kansas City Kansas Public Schools, the original schools SAF-K was founded to cover, have a large majority of students living at or below the poverty line. Greater than 80 percent of the students receive free or reduced lunch. Many of these students do not have health insurance and do not receive regular medical care. The athletic trainer and school nurse are often the primary health care provider for many of the students. SAF-K athletic trainers often work to encourage the families of students who qualify for state health care to utilize this service, as well as to find resources to get the student athletes the care they need regardless of their ability to pay.

“SAF-K strives to work with other community health organizations to ensure that the student athletes receive the care they need.”

Clinical Practice Site Highlight: Springfield College

Integrating the CORE-AT EMR system into clinical and classroom education within an undergraduate athletic training curriculum

Profile: Springfield College, Springfield, Massachusetts

Faculty Members: Mary Barnum, Ed.D., ATC
Barclay Dugger, M.Ed., ATC
Wayne Rodrigues, M.Ed., ATC
Sue Guyer, D.P.E., ATC
Tom Dodge, Ph.D., ATC

Briefly describe your institution and athletic training program.

Springfield College is a small private institution located in Western Massachusetts. The athletic training program is housed within the Exercise Science and Sports Studies Department within the School of Health, Physical Education and Recreation. We admit students directly into the program from high school so they immediately begin the major upon arrival. We have 100 students in the program, with 69 participating in clinical rotations each semester. Each student completes six different clinical rotations over a three-year period. We have five full-time faculty members and six graduate assistants that serve in dual roles. All faculty members teach both theory and laboratory courses and serve as clinical instructors with team assignments.

What role does the CORE-AT EMR system hold in terms of your students' clinical education? What benefits do you expect your students to gain by using the system and participating within the AT-PBRN?

During their senior year, our students complete a rotation in our athletic health care clinic where they treat patients who need extensive, long-term therapeutic intervention. Each student has his/her own patient load and completes comprehensive assessments on patients in order to develop a thorough management plan. After hearing the presentation on the CORE-AT EMR system and the AT-PBRN at the 2011 Athletic Training Educator's Conference, we felt it would be extremely valuable for our students to utilize the system and to participate within the AT-PBRN during their clinic rotations. Utilizing the EMR system allows our students to become familiar with using electronic medical records and to fulfill a number of the new Evidence-Based Practice competencies outlined in the 5th edition of the Athletic Training Educational Competencies. We intend on using every aspect of the system, so our students will be gaining exposure to and developing an understanding of how to use a wide array of patient-rated outcome instruments during clinical care as well as billing and coding procedures within an integrated system.

Please describe the clinic in which you plan on using the CORE-AT EMR system as an educational tool.

The patient population within the clinic is the traditional college-aged athlete. In order to be referred to the clinic, the patients must have an injury or condition that removes them from participation in their sport for a significant amount of time. Or, they are in their off-season and had significant pre-disposing factors that were found during the PPE process. They are referred to the clinic for preventative therapeutic intervention.

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Are there any plans to use the CORE-AT EMR system as an educational tool within the traditional classroom?

We were extremely interested in utilizing the CORE-AT EMR system in our Assessment and Therapeutic coursework. The AT-PBRN research team was very supportive of this idea and created “educational accounts” within the EMR for us so that our students could utilize the system in the classroom. We currently have two courses that have assignments using the CORE-AT EMR system to help bridge the gap between theory and clinical application. Sophomore level students are required to use the CORE-AT EMR to document a real injury that occurred during their clinical rotation. Then working with their approved clinical instructor and researching the topic, the student has a series of questions they must respond to regarding various aspects of the assignment. While the sophomore level assignment focuses on the initial assessment and diagnosis component, the junior level assignment adds another layer and requires the student to utilize the patient-rated outcome tools and develop a rehabilitation program for a patient they are working with during their clinical rotation. We plan to continue this next semester and incorporate the CORE-AT EMR into the spring term assessment and therapeutic exercise courses.

“We currently have two courses that have assignments using CORE-AT EMR to bridge the gap between theory and clinical application.”

What knowledge and/or skills do you hope your students will gain by using the CORE-AT EMR system and participating in the PBRN?

We believe that the traditional paper charting systems are going to become obsolete. Our students need to become familiar and skilled in using EMR systems. Second, we expect the student to gain an appreciation and understanding of the importance of using patient-rated outcome instruments to guide the way they interact with the patient and adapt the patient’s treatment programs. Third, the inclusion of billing and treatment codes provides immediate and real examples to the student of their worth as health care providers. And finally, by utilizing the CORE-AT EMR system, the senior level students participating within the AT-PRBN will gain a wider vision and appreciation of the importance of large scale, real application research in advancing our knowledge base and our profession.

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