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From Classroom to Athletic Training

Washburn University students and athletes are big winners with contemporary modality



Washburn University, located in Topeka, Kansas, is not a large, research-orientated institution. Instead, we're a medium-sized campus with a vision of excellence in preparing students for careers, further study, and life-long learning.

With a total enrollment of just under 7,000 students, our athletic training program consists of approximately 25 students. Athletically, we have 14 collegiate teams that compete in NCAA Division II, and are nicknamed the "Ichabods" (named after financial benefactor Ichabod Washburn, not Ichabod Crane from "The Legend of Sleepy Hollow").

Our athletic training program is closely woven within the athletic department, and we feel that our size gives us an advantage. We're able to offer diverse learning experiences, integrating them early into clinical aspects of the program that reinforce what they've learned in the classroom.

When integrating technologies and resources into the athletic training program and the athletic department, we typically take a duality approach in that we want to make our limited capital budgets work for us in the best way.

An example is the decision to purchase a Class IV therapy laser. A single purchase of this magnitude (over \$15,000) doesn't happen often, especially for a single modality for a single program. To justify such an expense, we had to show how the technology could benefit both the students in the classroom and the student-athletes in competition.

We did our research and decided that we needed to stay current with technology and invest in this intriguing modality. We've observed tremendous results both with athletic training students and

student-athletes. The laser has become popular to the point that we've invested in an additional unit.

Technology in the Classroom

At Washburn, we educate athletic training students in contemporary treatments and technologies. Our goal is a tiered approach to education that enables students to learn about leading-edge technologies in the classroom, and put that knowledge to work in supervised, hands-on clinical experiences.

Our students are exposed to traditional techniques such as ice, ultrasound, and electrical stimulation, as well as newer interventions such as instrument-assisted soft tissue mobilization, manual techniques, and aquatic therapy.

High-power laser therapy was (and still is) quite a new concept. Adding it to our programs was challenging, and a lot of effort has gone into making it a staple within the program. Before teaching students, it was important for our faculty and staff to understand the science behind laser therapy.



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We completed online certification classes through the American Institute of Medical Laser Applications (AIMLA), which helped us understand the biological cascade of events during photobiomodulation therapy. It was great to have that kind of training and support on the front end.

We also looked at published evidence and attended workshop symposia. Much of these concepts make up the “Principles of Phototherapy” unit within our modalities course.

After completing the modalities course, students engage in clinical experiences focused on therapeutic interventions and rehabilitation. During clinical labs, students review the principles of the technology and complete their own research reviews of laser’s efficacy. They are given a hands-on evaluation of laser in the athletic training room.

Students aid their clinical preceptors’ treatment of patients with a number of modalities and are asked to evaluate results. With Class IV laser, it’s a rewarding feeling for students when a patient steps off the table and expresses an immediate improvement. Identifying a tangible outcome is a real confidence builder.

We are proud that we’ve developed a program that helps graduating students understand new technology and be comfortable evaluating products in the market. Ultimately, we strive to help students become good consumers.

When our graduates move into professional practice, we want them to effectively evaluate new technologies and techniques.

With therapy laser, we teach the basic science and application principles in the classroom, then challenge them to find evidence to support or dispute its effectiveness and evaluate their own use in clinical experiences. This teaches students how to differentiate solid scientific information vs. manufacturer claims.

Making a Difference

Moving from the classroom to clinical application in our athletic training room, we were excited to see our athletes

benefit from Class IV laser. We were aware of how fast this modality was growing within professional and major college athletics. We talked to a lot of people about the impact the technology was making.

We have seen incredible results with laser therapy on a multitude of conditions, including typical overuse inflammatory issues, sprains and strains, painful bruising, and superficial skin abrasions. It positively impacts both acute and chronic conditions.

One of the first major successes we witnessed was with a football running back with a chronic hamstring injury. This player was a transfer from a Division I program but, interestingly, had not previously been treated with laser therapy.

The athlete presented with a large area of pain and tenderness consistent with a myositis in his left hamstring, keeping him out of practice. We treated the area by applying Class IV laser with a massage-like ball handpiece. This allowed us to deliver laser treatment while administering manual therapy. In addition, he received traditional stretching and therapeutic exercises.

After a few treatments in the first week, the area of tenderness had decreased 80% in size, and his ability to perform functional activities increased dramatically. This was just one success story that contributed to us becoming big believers.

Players continually come in seeking laser treatment. Treatments are fast and easy to perform. We don’t need to hook anything up or use any kind of gel. We can usually complete a treatment within 5-8 minutes, regardless of what we’re treating. Even with low-back pain, one of the more successful conditions we treat with laser therapy, we can complete treatment in a short time, and players usually step off the table feeling an immediate difference.

While laser therapy doesn’t replace exercise or rehabilitation, we believe that using it adjunctively places the tissue in a healthy environment so that exercising and stretching is more comfortable and occurs with less strain. Laser therapy is the only modality that gives our players non-pharmaceutical, lasting pain relief. Students know it provides quick relief and rely on it as part of their treatment regimen.

Fundamental Component

The versatility of laser and the impact it can have on both programs is how we built our case when we requested the capital equipment dollars to purchase the Class IV laser. To justify the investment, we needed to demonstrate that this asset would make a significant impact on both athletic training students and student-athletes.

Laser has now been incorporated as a fundamental component of students’ coursework, both in the classroom and during hands-on clinical experiences. Students integrate evidence-based principles into practice, and our injured student-athletes feel better, faster. ■