Speaker 1: The Missouri State Journal, a weekly program keeping you in touch with Missouri State University.

Nicki Donnelson: Our population continues to grow: more people, more obesity, more health risks. I'm Nicki Donnelson. Today on the Missouri State Journal, I have Dr. Jeanie Skibiski. She's an Assistant Professor in the School Of Anesthesia and Missouri State University. She's been directing a study that looks at the effectiveness of an innovative technique to reduce the use of pain meds post op.

Jeanie Skibiski: The numbers of patients that are projected to have total knee replacements, it just continues to go up astronomically because of traumatic arthritis, obesity, that people are living longer as well. There's a bigger population, expanding population, that needs joint replacement and then they're going to need pain control.

Nicki Donnelson: Opioids are commonly prescribed for those with a total knee replacement. But with the increased attention turned to the abuse of these narcotics, a new method was approved a few years ago. It's called cryoneurolysis. She explains.

Jeanie Skibiski: There's been what's called nerve ablation where you treat the nerves and permanently damage them so that they are not painful anymore. But the cryoneurolysis technique takes the nerve just to the point of slightly damaging, basically bruising it, so that it doesn't conduct the painful impulses anymore. Then the nerve fully recovers after about three months. The area that I was especially interested in was in total knee replacements, which there's lots of total knee replacements and if you talk to a lot of people in the population, they'll say, "It was the most painful thing in my life." This is an interesting aspect of a treatment or way to help make their experiences better, reduce narcotic consumption, because that's a big concern now. We don't want to be just handing out pain pills and treating everything with a pain pill. This is a way to do it with a non-narcotic method.

Nicki Donnelson: Skibiski has been working with Mercy on this project. She enlisted the help of some students to dig deeper into the technique and she is hoping to spread the word about what a great options treatment could be even though it's not widely used yet.

Jeanie Skibiski: The two students I was working with are Maggie Swafford and Julia Merlo, and they initially were doing data, just research, and looking to see the effects of it. We spent a few hours in the cadaver lab looking at the nerves that were affected and then they did some literature research and talked to some people that have done this and people that have experienced it. They did a presentation at the spring meeting at the Missouri Association of Nurse Anesthetists. We wanted to kind of bring it forward as an option to make people in the anesthesia community aware of it as being a viable way to preventively treat pain postoperatively.

Nicki Donnelson: Due to the wide variation in patient pain threshold, Skibiski says that orthopedic surgeons would work with individual patients to determine the best technique and pill to manage pain. She is now working with Mercy in the Institutional Review Board to gather more information about the patient outcomes.

Jeanie Skibiski: I'm currently involved with Mercy doing the IRB approval of a study retrospective, an outcome study to see they've done on several hundred patients here. We want to see, looking back, how did they do compared to people that didn't have the treatment. That's where I'm just on the cusp of working that and collecting all the data on that.

Nicki Donnelson: Skibiski points out that Springfield has had a School of Anesthesia for about 65 years and the program became part of MSU in the early 2000s. She notes that research like this is just one aspect of making sure that the students leave the program as the highest quality practitioners.

Jeanie Skibiski: We're training, we're doctorally prepared now. Our first doctoral class graduated in 2017. [inaudible 00:03:50] practice doctorate, as many professions are moving into. You typically graduate about 25 students per year. It's a three year course of study. Around 75 students are available. We have clinical sites, Missouri, Kansas, Arkansas, Idaho, all over the place. We send our students out to get their clinical rotations and get a lot of good experience. We are known for graduating students, practitioners that are ready to go and very well-trained. We're very lucky to have a simulation lab and skills lab that are very well furnished and they really help the students learn in that first year before they ... Because we have the first year of didactic and they are excited to go give back to taking care of patients. But this helps get them ready to get out there and do the clinical that they'll do two years of clinical rotations.

Nicki Donnelson: That was Dr. Jeanie Skibiski. I'm Nicki Donnelson for the Missouri State Journal.

Speaker 1: For more information, contact the Office of University Communications at (417) 836-6397. The Missouri State Journal is available online at KSMU.org.