

## Background

- 25% of pediatric sports related injuries require surgical intervention due to:
  - Growth spurts
  - Underdeveloped bones
  - Lack of motor skills
- Our typical post-op ACL pain management protocol consists of prescribing opioids
- Opioids have a high addiction potential, especially in the pediatric sports community
- 14% of people aged >12 years of age misusing prescription opioids
- Use of opioids remains a topic of debate among the public and medical professionals
- Reluctance of parents wanting to utilize their opioid prescription due to the stigma associated with opioid misuse



## Methods

- Our team performed a chart review on pediatric patients that underwent ACL reconstruction surgery
- Two therapy groups:
  - Single peripheral nerve block (SPNB)
  - SPNB + continuous peripheral nerve block (CPNB) pump
- Upon review a total of 16 pediatric patients met our inclusion criteria
- Inclusion Criteria: 13-18 years old, ACL reconstruction surgery by a single surgeon, had a femoral SPNB, and no CPNB pump issues
- CPNB pump therapy entailed a continuous infusion of 0.2% ropivacaine with parameters ordered by pain team
- CPNB therapy group discharged home with the pump and continued therapy up to post-op day 5
- All patients, regardless the therapy group, were prescribed a total of 20, 5 mg oxycodone tablets and had the opportunity to take 1 tablet every 4-6 hours
- Patients were surveyed on how many oxycodone tablets were taken between post-op days 1-5



## Conclusions

- When comparing the average of oxycodone tablets taken during the post-op period, the SPNB therapy group took over 10 times more compared to SPNB + CPNB.
- Of the 20 oxycodone tablets prescribed, patients that received only the SPNB took 26.7% of available oxycodone compared to 2.9% for patients that received the SPNB + CPNB pump.
- With the increased rates of opioids being prescribed to children and the potential for associated problematic opioid use behaviors it is important to consider other adjunct therapy, such as CPNB (Groenewald, 2019)
- Offering an alternative pain management therapy may decrease the perceived fear of opioid misuse in pediatrics.

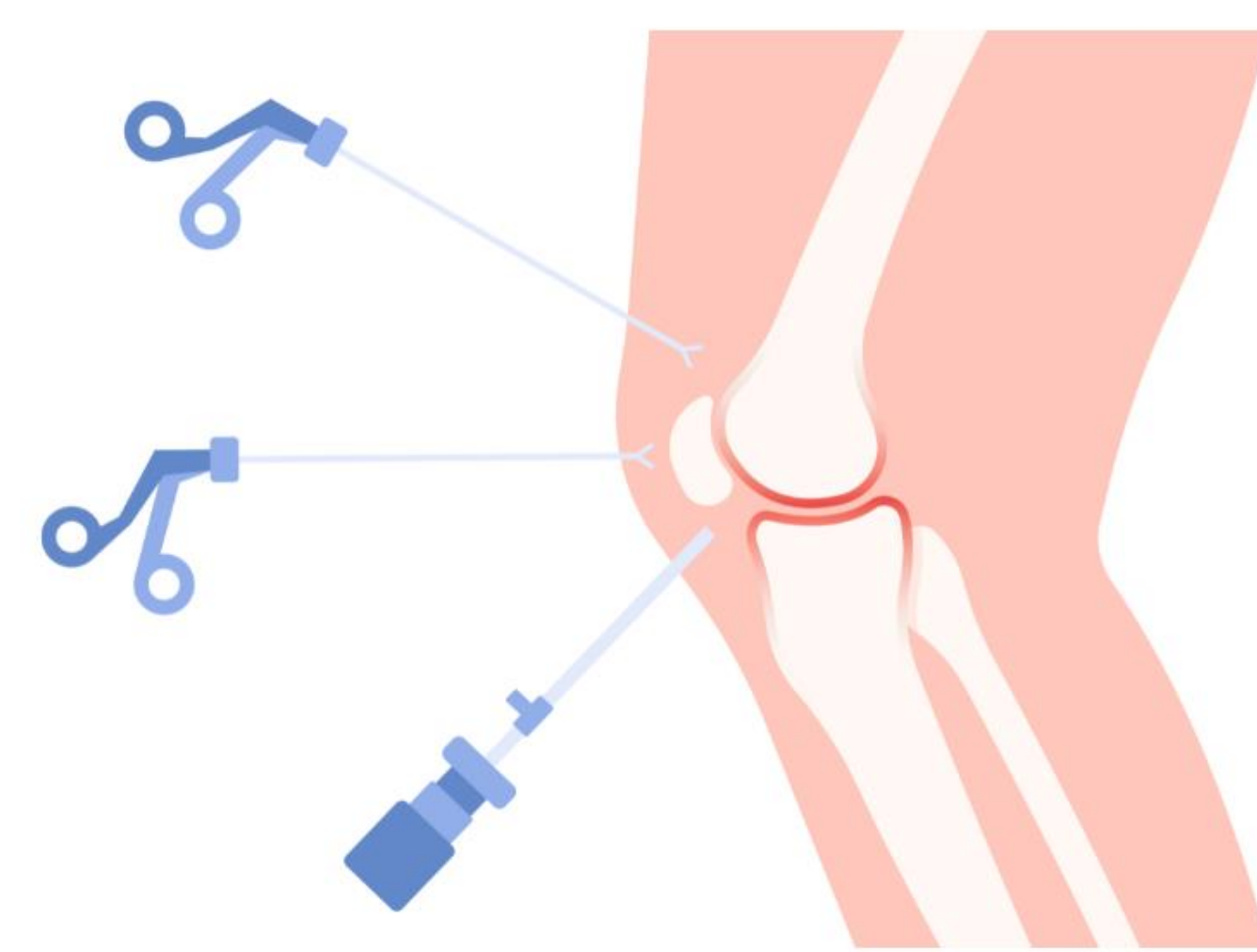
## Future Implications

- Our preliminary findings support implementing a pain management protocol using CPNB pumps for other specialties in our organization.
- Discussions with surgeons and the pain management team to decrease the amount of opioids prescribed post-op.

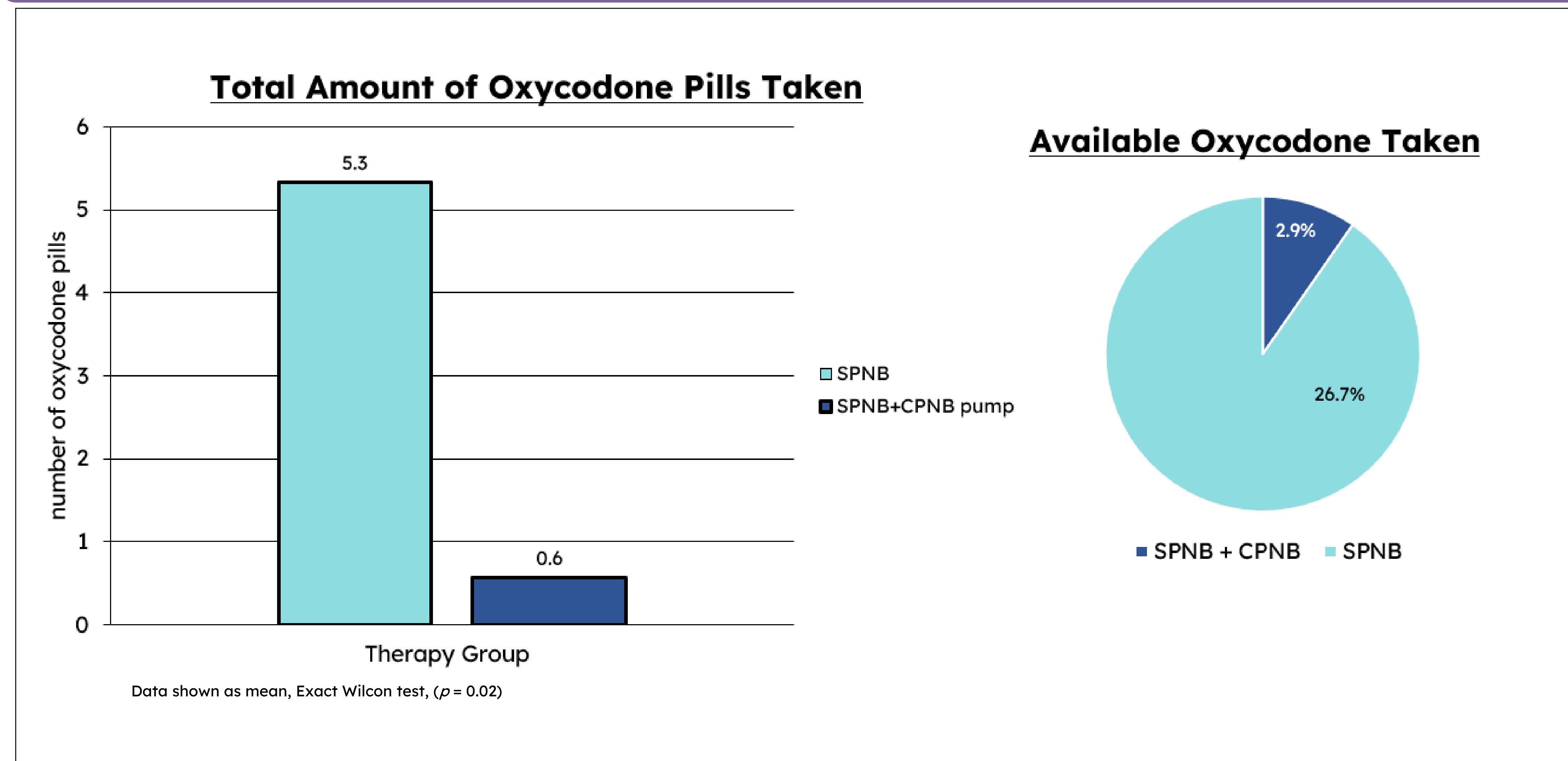


## Objectives

- Investigate how to decrease post-op opioid use
- Implement an alternative pain management therapy
- Compare the amount of oxycodone tablets prescribed to the amount taken



## Results



## References & Acknowledgements

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