AbSPORU
Alberta SPOR SUPPORT Unit



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Project Title:
Pre-op Schroth Therapy for Adolescent Idiopathic Scoliosis Surgery

ABOUT VINCENT

Vincent is a graduate student in the Faculty of Rehabilitation Medicine at the University of Alberta. He completed a Bachelor of Kinesiology, Research Certificate in Kinesiology, and Certificate in International Learning during his undergraduate, and has studied enhanced recovery after surgery physiotherapy protocols for youth with scoliosis and the relationship between spine stiffness and spine flexibility. He is currently researching improving the quality of life of youth with severe scoliosis and the effects of the waitlist period prior to scoliosis surgery.

PROJECT SUMMARY

Adolescent idiopathic scoliosis (AIS) is a sideways curve and rotation of the spine that affects 2 - 2.5% of children and youth ages 10 to 18. Large AIS curves (45°+) primarily affect girls and can cause pain, reduce lung space, impact mental health and self-esteem, and continue to worsen in adulthood. In these cases, corrective fusion surgery is recommended by physicians. AIS leads to more elective orthopedic surgeries in youth than any other chronic condition.

During the surgery waitlist period of up to 2 years, youth are monitored until surgery but do not otherwise undergo treatment, while the spine curve can continue to worsen and increase the surgery complexity. Post-surgery, youth have restricted mobility at the operated vertebrae. Schroth therapy is a type of physiotherapy commonly used in Europe that improves quality of life and reduces the amount of spine curving in nonsurgical cases, though has limited research on surgical cases.