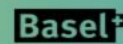


BWF

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Badminton Specific Injury Prevention (BSIP) Development and Effectiveness

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Background

Injury incidence observed, ranges between 0.9 to 5.4 injuries/player/1000 badminton hours

(Goh et al,. 2013 ,Yung et al,. 2007)

No injury prevention program that has scientific underpinning, specific to Badminton

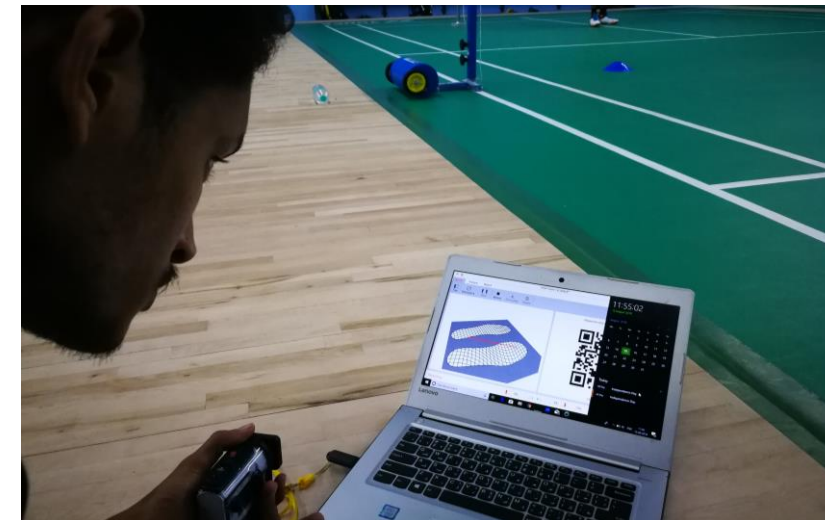
Objective

- To design a scientifically valid, badminton specific injury prevention program based on Kinematic and Kinetic assessment
- To investigate its effectiveness in alleviating the risk of Injuries

Phase 1: B-SIP Development

Biomechanical assessment during stroke play

- Joint kinematics (2D motion analysis)
- Plantar pressure



Participants: University level players






Phase 2: Effectiveness

Design: Non-randomized, double arm trial

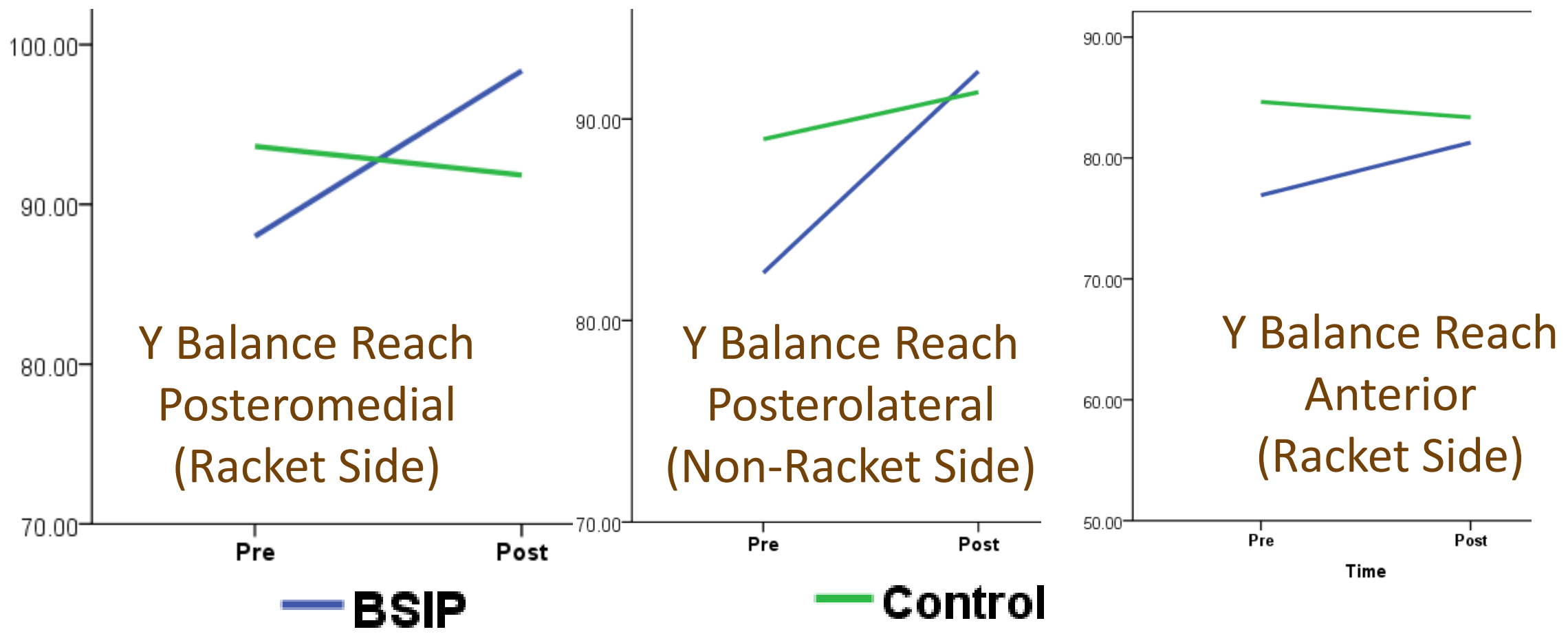
Intervention: 8 weeks

Outcome Measures	
Flexibility (muscle length, IR: ER Ratio)	Balance
Stability	Movement impairment
Proprioception	Kinematics of four strokes

Results

Outcome measures	
Flexibility	
Stability	
Proprioception	
Balance	
Movement Impairment	

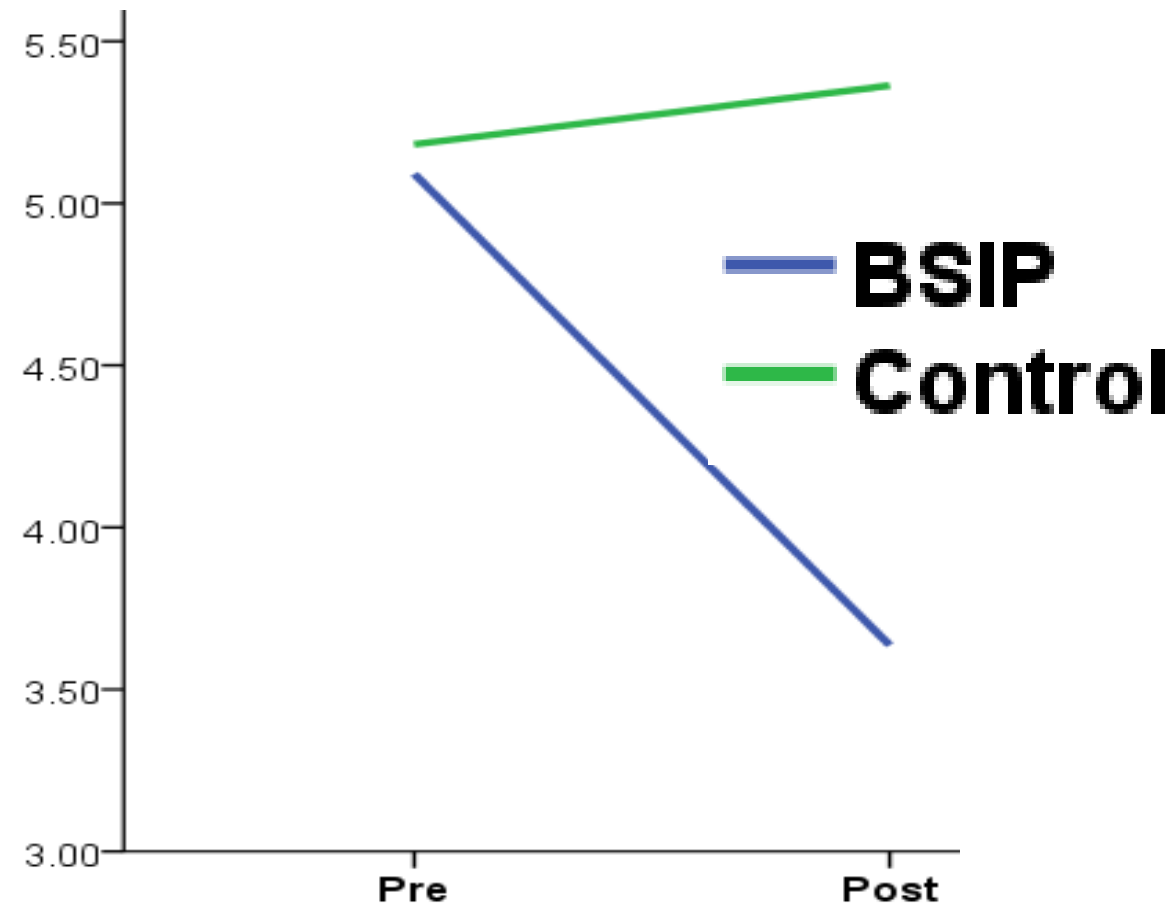
B-SIP and Balance



B-SIP and Landing

Improved proximal control

Improved quality of motion



Impression

- Significant improvement in balance (in all three directions) and movement impairment in B-SIP group, suggesting increased protection against injuries.
- Marginal improvement in stability and proprioception.
- No improvement in flexibility.



Thank you