LSBU

Feasibility Trial Study Procedure (Phase II)

Activities	Protocol Guide: Summary	Time allocated
1.	**Welcome** Master athlete (MA) participant and sports chiropractor (SC) clinician fill and sign forms. Answers questions before start.	10 mins
2.	**Setting up** Connect the dynamometer to the computer. Open the software programme and registering the MA participant initials. **I. Offset measurement (Red screen):** always with legs/feet off. Fix the knee lever vertical (90 degrees to horizontal) by assuring both force plates resting in front on the sensor and touching. (Screws and nuts on the axis of rotation are tight). **MA standing warm up:** MA performs 5 ankle plantar flexors. **II. Resting measurement (Blue screen):** legs/feet on and knees fixed on dynamometer. MA sits on stool with both feet relaxed over the plates (hip 90/knee90/ankle90) for 10 to 20 secs. Axis of rotation in line with malleoli. Arms across the chest. **MA sitting Warm up:** MA pre-test the plates respond by gentle plantar flexion (PF) pressing a mild force of 100-150 N (No recording to measure, only to check the setting position is correct and comfortable): R foot: 3-5 secs L foot: 3-5 secs Both feet: 3-5 secs	5 mins
3.	**PRE1-MVIC** (Baseline) LR instructs MA to perform R, L & B maximum power of plantar flexor (PF) MVIC at the strain gauge-type dynamometer: *"On my command when I say **GO**, press as hard as you can with your forefoot into the plate and reach your maximum as fast as you can, and hold it until I tell you to stop. Are you ready? 3,2,1* (press the button to start) ***GO!** Push, push, push & stop".*	
	First set MVIC	
	R leg	3-5 secs
	L leg	3-5 secs
	Rest	60 secs
	Both legs	3-5 secs
	Rest	90 secs
	Second set: Repetition as the first set (3 mins)	
	Rest	90 secs
	Third set: Repetition as the first set (3 mins)	
	Rest	90 secs

4.	**PRE1-AMS** (Baseline) LR instructs MA to follow a trace cursor predefined function in the PC screen by performing PF (up to 30% of MVIC) against the same dynamometer with both feet simultaneously.	
	Slow speed	
	Warm-up practice (Not to be used for analysis)	60 secs
	Rest	60 secs
	First set	60 secs
	Rest	60 secs
	Second set	60 secs
	Rest	60 secs
	Fast speed	
	Warm-up practice (Not to be used for analysis)	15 secs
	Rest	60 secs
	Third set	15 secs
	Rest	60 secs
	Fourth set	15 secs
5.	**Control condition** MA rests, stands, gentle walk, and stretch muscles (5 mins). LR interviews MA about previous experiences of muscle strength testing and accuracy, the potential impact of CMTs and its relevance to athletic performance with 4 questions: 1.Have you been involved in a previous muscle strength test? YES/NO 2.(If YES to q1) How are these tests compared to your previous experience (at a lab or field setting)? 3.How relevant do you think are these tests to sports performance? 4.What do you anticipate/expect is going to happen on your following up two biomechanical performances? MVIC? AMS slow? AMS fast? PRE2: better, worse, unchanged than PRE1 or don't know. POST: better, worse, unchanged than PRE1 or don't know. POST: better, worse, unchanged than PRE2 or don't know.	20 mins
6.	**PRE2** Same as PRE1-MVIC and PRE1-AMS (without the warm-up) MA rests, stands, gentle walk, and stretch muscles.	20 mins
7.	**Intervention condition** Sports chiropractor (SC) assesses and provides CMTs as the intervention to MA. MA returns to BMX testing (POST). SC records CMTs assessment and treatment provided in the clinical form.	20 mins
8.	**POST** Same as PRE2-MVIC and PRE2-AMS	20 mins
9.	**Closing** LR thanks MA and SC for taking part in phase II. LR Invites MA to phase III.	10 mins
	Total	**125 mins**

MA: master athlete; LR: Lead researcher; PF: plantar flexors; MVIC: maximum voluntary isometric contraction; AMS: accuracy motor skill; SC: sports chiropractor; CMTs: chiropractic manual therapies; PIS: participant information sheet; R: right; L left; B: both