

CHAPTER 4
AIM AND OBJECTIVES

4.0 AIM AND OBJECTIVES

4.1 AIM AND OBJECTIVES: DESIGN 1 (INJURY SURVEY)

4.1.1 AIM

- To survey the annual prevalence, nature and mechanism of the musculoskeletal injuries among injured male cricket players.

4.1.2 OBJECTIVES

- To survey by classifying the injured player as: B - batsmen, FB - fast bowler, FMP- fast medium pace bowler, MP - medium pace bowler, RAS - right arm off spinner, RLS - right arm leg spinner, LAS - left arm spinner and WK - wicket keeper.
- To assess the injury according to hand dominance (HR- hand right, HL – hand left) and leg dominance (LR – Leg right, LL - Leg left).
- To diagnose the injury according to Orchard Sports Injury Classification System (OSICS) 10.1. Level 1 - body region; level 2 - body part; level 3 - common diagnoses; level 4 - specific diagnoses.
- To assess the injury side as left/right/bilateral/not applicable.
- To assess the time of onset of the injury as match/training/gradual/other.
- To identify the activity of during the onset of an injury as batting/bowling/fielding/gradual
- To log in the date of onset of an injury.
- To decipher the mechanism of an injury as overuse (gradual/sudden), recurrent, contact/impact, sprinting (while fielding or batting), insidious (gradual and no identifiable mode of onset) or medical illness.
- To log in the total loss of play days due to an injury.
- To know the management of an injury - physiotherapy, medication, both or other methods.
- To survey the details of any surgery or any other major treatment used to manage an injury.

4.2 AIM AND OBJECTIVES: YOGA MODULE VALIDATION

4.2.1 AIM

- Validation of the *yoga* biomechanics module designed for the male cricket players.

4.2.2 OBJECTIVES

The objectives of the validation of *yoga* biomechanics module for the male cricket players chiefly included two aspects - biomechanical and psychological.

The intent of the biomechanical component was -

- Facilitation of core stability
- Facilitation of flexibility
- Facilitation of range of motion
- Facilitation of balance - static balance and dynamic balance.
- Facilitation of proprioception of the ankle.

The intent of the psychological component was -

- Enhancing mindfulness.

4.3 AIM AND OBJECTIVES: DESIGN 2 (YOGA INTERVENTION)

4.3.1 AIM

- Evaluating the impact of *yoga* biomechanics in facilitating muscular functioning and mindfulness among asymptomatic male cricket players.

4.3.2 OBJECTIVES: PHASE 1 – YOGA INTERVENTION

- To evaluate the effect of *yoga* in facilitating core stability.
- To evaluate the effect of *yoga* in facilitating flexibility.
- To evaluate the effect of *yoga* in facilitating bilateral active shoulder range of motion.
- To evaluate the effect of *yoga* in facilitating static balance.
- To evaluate the effect of *yoga* in facilitating dynamic balance.
- To evaluate the effect of *yoga* in facilitating proprioception of the ankle.
- To evaluate the effect of *yoga* in facilitating mindfulness.

4.3.3 OBJECTIVES: PHASE 2 – FOLLOW-UP STUDY

- To evaluate the effect of *yoga* in facilitating core stability.
- To evaluate the effect of *yoga* in facilitating flexibility.
- To evaluate the effect of *yoga* in facilitating bilateral active shoulder range of motion.
- To evaluate the effect of *yoga* in facilitating static balance.

- To evaluate the effect of *yoga* in facilitating dynamic balance.
- To evaluate the effect of *yoga* in facilitating proprioception of the ankle.
- To evaluate the effect of *yoga* in facilitating mindfulness.

4.4 JUSTIFICATION OF THE STUDY

Despite the fact that cricket is one of the most popular sports in India, the exact nature and prevalence of cricketing injuries among first-class domestic male cricket players had not been studied earlier. Hence, detailed information regarding the same is crucial for the cricketing community. The current study is an essential first step in understanding the relevance, acceptance, and participation in mind-body training such as *yoga* for male cricket players. Holistic approach in *yoga* protocol, such as the current study, which has an amalgamation of *āsana*, breath training, and deep relaxation, may prove to be of optimal benefit. The study also throws light on the extensive scope for future research in the field of *yoga* biomechanics for sportsperson.

4.5 HYPOTHESIS AND NULL HYPOTHESIS

4.5.1 HYPOTHESIS

The practice of *yoga* biomechanics module may have an effect in facilitating the core stability, flexibility, bilateral active shoulder range of motion, balance, proprioception of the ankle and mindfulness among asymptomatic cricket players.

4.5.2 NULL HYPOTHESIS

The practice of *yoga* biomechanics module may not have an effect in facilitating the core stability, flexibility, bilateral active shoulder range of motion, balance, proprioception of the ankle and mindfulness among asymptomatic cricket players.

Thus, the methods that were adopted in order to meet these aim and objectives of the injury survey, *yoga* module validation, *yoga* intervention and follow-up study are explained in detail in the coming chapter.