Yoga's Impact on Collegiate Male Soccer Player's Flexibility and Balance

Haley Church
Gardner-Webb University
Exercise Science Department

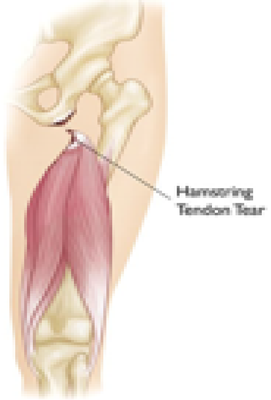
Abstract

As injuries increase in sports due to flexibility and balance issues, coaches and trainers strive to develop new techniques that can decrease the risk of injuries and improve overall performance of their athletes. The practice of yoga and its techniques have been associated with positive results in various aspects for decades. Most literature states that yoga does have a positive impact on flexibility and balance but lacks research on which type has the greatest impact (Polsgrove et al. 2016).

Introduction

- The purpose of this study was to investigate which type of yoga has a greater impact on collegiate male soccer players flexibility and balance. A hypothesis would be that Birkram yoga has a greater affect.
- 68 to 88 percent of all soccer injuries occur in the lower extremities, this is possibly related to flexibility and balance issues (Witvrouw et al. 2003).

https://www.heartlandsphysio.co.uk/soft-tissue-injuries/



https://orthoinfo.aaos.org/en/diseases--conditions/hamstring-muscle-injuries

- Yoga has been reported to enhance muscle torque, increase handgrip strength, increase flexibility and balance (Polsgrove et al. 2016).
- Birkram yoga utilizes 26 poses performed in a heated environment. Combining the rapid transitions and environment produces a substantial cardiovascular response and muscle fatigue (Tracy, Hart 2013).
- Hatha yoga is known for its benefits in strength, endurance, flexibility, and balance (Kumar et al. 2016).
- Measuring flexibility and balance include the following tests, Shoulder flexibility test, Sit-and-Reach Test, and the Pupine position Test. The balance test will include the Y Balance Test.

Methods

Group 1: Gardner-Webb University	Group 2: UNC Charlotte
Participants: n=29	Participants: n=29
Location: Bost Gym.	Location: Jeffery Richardson Stadium

Week 1:

- Gather participants by emailing each team's coach. The email will include a flyer, a synopsis of the study, and a copy of the questionnaire.
- Volunteers will be asked to complete the MSHAA Sports Questionnaire along with filling out a statement about not having previous injuries (this includes any injjury).
- After selecting participants, the researcher will brief all participants on the research protocol.

Weeks 2-7:

- Pre- tests will begin with each group.
- Gardner-Webb University participants will be assigned to the Birkram Yoga group, while UNC Charlotte participants will be assigned to the Hatha Yoga group.
- Each group will participate in 90-minute sessions twice a week.
- Groups will also participate in their normal sport routines.

Week 8:

- After completion of yoga research, participants will complete a series of Post-tests like the ones from week two.
- Tests will be recorded in the software SPSS, this will analyze all data will producing paired and independent tests.
- Data will be sent to each coach for comparison and future research.

https://www.yogajournal.com/practice-section/protecting-your-wrists/

Operational Definitions

- *Yoga*- An ancient practice used to increase flexibility and balance of athletes. (Sheen, 2014).
- *Birkram Yoga*- A form of yoga that is performed in a heated environment (Tracy & Hart 2013).
- *Hatha Yoga*- A form of yoga which incorporates 26 poses into a session. It's known to improve flexibility and balance (Grabara, 2016).

Conclusions

- It will be assumed that all participants are performing their normal practices outside of their yoga sessions.
- Further research can be conducted to examine the effects of yoga on rehabilitation of lower extremity injuries.

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