Official Title of Study: -

Virtual reality versus Biodex Training in Adolescent Athletes with Chronic Ankle Instability

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Virtual reality versus Biodex Training in Adolescent Athletes with Chronic Ankle Instability

PURPOSE:

This study aimed to assess the efficacy of virtual reality versus biodex training in adolescent athletes with chronic ankle instability.

BACKGROUND:

Ankle instability results from repetitive ankle sprains are common injuries in active young people. Most of these injuries recovery quickly on their own, do not require imaging, and do better with early motion and rehabilitation. High ankle sprains and fractures are much less common but more serious. They may require imaging and more treatment.

Phases of rehabilitation for ankle sprain

Phase I treatment involves resting and protecting the ankle to permit healing, to prevent further injury, and to control pain and swelling.

Phase II treatment begins once pain and swelling have subsided to the point where the athlete can comfortably bear weight and walk from place to place.

Virtual reality (VR) is a simulated experience that can be similar to or completely different from the real world. Applications of virtual reality can include entertainment (i.e. video games) and educational purposes (i.e. medical or military training). Other, distinct types of VR style technology include augmented reality and mixed reality.

HYPOTHESES:

H0 there is no significance difference between virtual reality versus biodex training in adolescent athletes with chronic ankle instability.

H1 there is a significance difference between virtual reality versus biodex training in adolescent athletes with chronic ankle instability.

RESEARCH QUESTION:

Is there is no significance difference between virtual reality versus biodex training in adolescent athletes with chronic ankle instability?

Aim of the study:

To determine the effect of to assess difference between virtual reality versus biodex training in adolescent athletes with chronic ankle instability.

Inclusion criteria:

1. Children will have sustained lateral ankle sprain (grade II).
2. Their age was ranging from 12-16 years
3. Children participated in this study only males.
4. They will able to follow the verbal commands or instructions during testing.

Exclusion criteria:

1. Children with 1,2 grade of ankle sprain
2. Children with deformity in foot
3. Children with back problems.
4. Children with balance affection.

Methods for assessment:

- Balance assessment
  - Over All Stability Index
  - Antero-Posterior Stability Index
  - Medio-Lateral Stability Index (MLSI)

Methods for treatment:

Sixty patient with muscular dystrophy were enrolled in this study and were assessed for eligibility.

Group (A) received the traditional physical therapy program.

Group (B) received the traditional physical therapy program in addition to virtual reality.

Group (B) received the traditional physical therapy program in addition to biodex balance training.

All patients will received sessions three times / weak for three successful months. Pulmonary function test were used to assess pulmonary functions pre and post intervention. All patients were assisted before and after three months of intervention.

RECRUITMENT

Please state clearly how the participants will be identified, approached and recruited.

Note: Attach a copy of any poster(s), advertisement(s) or letter(s) to be used for recruitment.

The patients will be recruited from Outpatient Clinic of faculty of medicine, South Vally University

CONSENT

Describe the process that the investigator(s) will be using to obtain valid consent. If consent is not to be obtained explain why. If the participants are minors or for other reasons are not competent to consent, describe the proposed alternate source of consent, including any permission / information letter to be provided to the person(s) providing the consent.

I am freely and voluntarily consent to participate in a research program under the direction of M.Sc. A thorough description of the procedure has been explained and I understand that I may withdraw my consent and discontinue participation in this research at any time without prejudice to me. Date Participant