

## Intensive training effect on Balance Ability among students of Teacher Education Programme

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### Abstract

Core of the study is to examine the balance effect post intensive training among students through teacher education program. It's a believe that (Lindsay J. Distefano,Micheal A Clark, 2017) "there is a significant strong core musculature dynamic stabilizes the pelvis, during the functional movements". As per the several reviews from various researchers now, it has been proved that intensive training has a significant positive effect on balance ability among students. This teacher education training programme consisted of 4 weeks training program on static balance followed by two weeks training on dynamic balance training. This training starts with person stand straight with one leg and eyes closed and its ends with when person open their eyes or lifted leg touched the wooden floor or support foot touched any part. Extensive review has been done on the perception and the results of the outcome of the training on balance ability and found that the training on balance ability is effective among all age group.

**KEYWORDS:** Balance, students, training program

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### Introduction:

Balance is a measure which requires mobility and stability. In order to significantly maintained body balance, ability to amalgamate musculoskeletal and neurological systems is significantly important. In general, balance has the significant ability to maintain (Lindsay J. Distefano,Micheal A Clark, 2017)"body's centre of gravity". Balance is further categorized as either static balance or dynamic balance. As per (Lindsay J. Distefano,Micheal A Clark, 2017) "Balance body in a static form is the ability to maintain body equilibrium whereas dynamic balance is more difficult or challenging to maintain because it requires the ability to maintain body equilibrium during transition. Both the balance (static or dynamic) requires effective amalgamation of visual and vestibular inputs to produce an efficient response to control the body within its base to support".

To measure balance, a person has to stand on a single leg with closed eyes. Person is instructed to stand straight in 18\*20 inch square, marked by tape on a wood floor. Then after, with one leg support leg, person is instructed to lift another foot from the wooden floor and stand straight. Balance test started as soon as, person stand straight with one leg and eyes closed and its ends with when person open their eyes or lifted leg touched the wooden floor or support foot touched any part. Objective of this review paper is to find the intensive training effect on Balance Ability among students in Teacher Education Programme.

Balancing body on one leg is the symptom of being healthy and to be healthy physical training is significantly required. Teachers training program is the program where in eight weeks intensive training is been given to the students, where in their balance

ability is being checked. Objective of this training on balance ability is to help students being healthy and they are able to balance their body equilibrium in need. Improving balance with regular practice or training in a healthy sign. As per (Lauren C. Olmsted, Christopher R. Garcia,, 2002) intense training on balance ability definitely reduces injuries and it also helps in decreasing ankle sprain rate". Later on (Lauren C. Olmsted, Christopher R. Garcia,, 2002) also said that apart from reducing injury rate balance training also helps in increasing overall health condition.

Balance ability is extremely important for any sports or games however balance has specific role in games like shooting, gymnastics and archery. Through balance ability, sportsman retains body equilibrium in dynamic and static conditions. All the parts of the body movements are being significantly affected by balancing ability, but it gets noticed when the body movements are done in a smaller area. For the sports man to be successful, balance ability to maintain body position plays an extremely important role. Balance ability is also required in dynamic sports like skiing, basketball, football etc where there is always a sudden changing movement.

Several studies have been done for evaluating the effect of intense training on balance ability among sportsman. However, there are very few studies available which talked about the effect of intense training among students in balance ability. Therefore, purpose of this research paper is to organize a systematic literature review, which determines whether balance ability training improves balance among students or not. Aim of the study is to answer the following questions:

- 1) Can Intensive training helps in improving balance ability among students?
- 2) Can Intensive training improve static balance ability among students?
- 3) Can Intensive training improve dynamic balance ability among students?

### **Review of Literature:**

To answer above questions listed below studies has been done on impact of Intensive training on balance ability among students.

Purpose of the study was to calculate the effect of hippo-therapeutic exercise on the development of sense of balance ability among boys aged between 15 years to 17 years with mild intellectual disability. As per (Ambroży, T. , Mazur-Rylska, A. , 2017), "significant changes have been found in the experimental group. These changes have been occurred post three months of hippo-therapeutic extensive exercise". As per the researcher, there is a significant improvement in the parameters of balance ability. (Ambroży, T. , Mazur-Rylska, A. , 2017) also said that "lack of changes in balance ability parameters in the control group shows that hippo-therapeutic classes significantly develop balance abilities in boys aged group between 15 to 17 years".

In physical therapy journal, author (Eun-Kyung Kim, Jin Seop Kim, 2016) has discussed about the "intensive effect of short step foot exercise and the improvement in arch support insoles in the medial longitudinal arch for dynamic balance of the flexible flat foot patients ", according to the author "improve flat-foot, applying short foot exercises was more effective than applying arch support insoles in terms of medial longitudinal arch improvement and dynamic balance ability". For doing this exercise author has selected fourteen students from the university with flexible flat-foot. Post that navi-cular drop test were performed and each student have got some

randomly assigned short foot exercise. This experiment was implemented for about thirty minutes followed by 3 times per week for next five weeks.

According to (Robert J. Butler, Corey Southers, Paul P. Gorman, Kyle B. Kiesel, and Phillip J. Plisky, 2012) identifying the significant differences on lower Quarter Y-Balance Test among high school male students was a major concern. As per the results “Balance ability has been identified in the performance of the high school male students for Quarter Y-Balance Test”.

Article (Nikolaos Vernadakis, Asimenia Gioftsidou, 2012), majorly focused on the evaluating the significant difference between a traditional balance and Nintendo Wii-game based training program for undergraduate students. As per the findings “effectiveness of using Nintendo Wii game has been found among under graduates students. The effect is mainly on physical balance function related to balance competence of a student.”

In examine the relationship between training, balance ability and sports injury article researcher (Hrysomallis, 2012) found “poor balance ability is significantly related to high risk of ankle injuries in several different activities. This over all relationship seems to be more usual in men and women both”. In general, traditional training on balance ability is being used as a part of rehabilitation programme for ankle injuries. Significant purpose of the training was to examine current knowledge about training, injury risk and balance ability.

In the experimental study of comparative effect of group and home base exercise on balance ability and balance confidence author (Cyarto E.V, Brown W.J, Marshall A.L., Trost S.G, 2008) have said that “Exercise can mutate fall risk factors such as mobility and balance and impairments ”. As per the author (Cyarto E.V, Brown W.J, Marshall A.L., Trost S.G, 2008) “it has been noticed that the participants in group-based RBT programs might improve their balance ability, which eventually help them in gaining confidence and improving performance as compared with the ones who does home-based walking programs ”.

(Jennifer A.HessDC, Marjorie Woollacott, 2004) talked about the ten week effect on balance ability, due to high intense training program. Target of the study was to help adults in improving the postural control among balance impaired legs. As per the results “there is a significant impact on strengthening impaired legs because of high intensity teacher education training programs. Researcher has also touched on how safely strengthening the lower extremity muscles through balance ability helped adults in strengthening impaired legs. This activity results in overall improvement in strengthening impaired legs through functional balance ability, which eventually decreases fall risk in adults.”

In the journal on community and school to promote physical activities games among students researcher (Tom Baranowski, Oded Bar-Or, Steven Blair, 1997) has talked about “how balancing activity is significantly linked in enhancing health conditions and how to reduced risk for all-cause mortality. Researcher has also talked about how there a development of several chronic diseases in adults because of no is balancing activity”. As per him, programs related to physical activities will effectively help young people or students in enhancing knowledge, behaviour, attitudes and the physical fitness of the youngsters. As per the findings, programs related social factors that influence physical activity are the most recognised program among youngsters.

## **Discussion:**

Above series of systematic literature review shows significantly strong positive correlation of the impact of intense training on the ability of balance. Through training balance can be improved dynamic and static both. This conclusion has been drawn from the consistent findings of several studies. All the reviews listed above performed has talked about the improvement in balance ability post training in all age group. In total eight articles are reviewed and in all review scholars has seen a strong positive correlation between intensive training has an impact on balance ability. It has been observed that static balance might not provide much improvement in-terms of balancing in the areas like athletic subjects and health. Therefore, it has been recommended that, in future studies there should be more focus on (Distefano, 2009) "the postural control assessment to assess change in balance ability from a teachers education training program with a significantly healthy population". It has also been observed from the review that training for Balance, has also been incorporated into several injuries prevention programs and it also helps in increasing concentration for games and studies. Hence, it can be said that there is a significant effect of intensive training programs on balance ability among students.

## **Conclusion:**

Over all from the discussion it can be concluded that training in balance ability can improve health conditions among students and adults. More and more, schools and colleges are expected to include Teacher Education Programme in their Syllabus. Schools and colleges are also expected to illustrate the kind of training system they are going to use effectively so that static balance on hard floor can be improved significantly. Any type of balance (static or dynamic) training program can significantly improve balance ability among students. However, schools or colleges should consider static balance in mind before designing any balance ability programs because static balance ability can improve balance on a stable surface which is directly and significantly related to the preliminary level of balance ability. Most of the balance ability programs in above listed reviews began with comfortable environment and ends with challenging tasks. Exercise in balance ability training starts with both leg with open eyes on a hard floor and ends with single-leg with closed eyes on an rough floor. These training programs are expected to be performed at-least three times in a week in the starting and eventually include few dynamic balance training activities. This pattern or combination will give significant results.

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