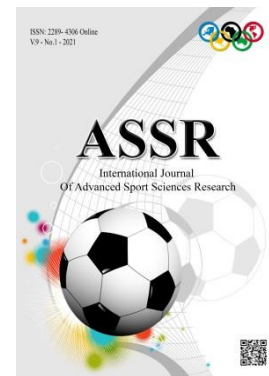


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"Impact of (Flat Foot) on Sports Practitioners' Certain Postural Deformities and Motor Skills"

Lect. Dr Ali Abdul Amir Al-Hasnawi¹, Prof. Dr. Akram Hussein Jebur²¹ Iraq - Al-Hila University College - Department of physical Education and Sports Sciences² Iraq - University of Al-Qadisiya- College of physical Education and Sports Sciences**Abstract**

The feet are the foundation of erectile body in all its activities and movements and his balance dependent primarily on the foot, which is a pillar of his driving machine for all its parts as it is an effective factor in any activity kinesthetic, and flattening foot condition disappears or almost where disappears curvature of the foot between the heel and fingers making toe settle flat foot on the ground, and that the articulation foot bones allows the foot to perform walking, running and jumping movements and is assisted by the power of the muscles of the lower leg and the arch of the foot works to withstand the weight of the body and distributed to the various parts and thus protects the bones of the foot and absorb shock and prevent pressure on the blood vessels, nerves, muscles and ligaments in flat foot and reservation foreshock.

Flat foot causes a lot of distortions skeleton in athletes and affects some motor abilities. Researchers used the descriptive method survey manner that has included research sample which consists of a group of practitioners of sports activity in various events that conducted examination distortions skeleton in the shoulders, spine and knees. Researchers conclude that the correlation spirits flattening directs a correlation between the feet and shoulders. Besides, the deviation was a significant inverse correlation between foot and dynamic equilibrium relationship and researchers recommend to have an attention about detection of abnormalities skeleton, especially in the feet and try to develop appropriate treatment and rehabilitation programs in athletes.

Keywords: Flat Foot, Motor Skills.

Introduction

In all its activities, motions and weights, the foot is the foundation for the erection of the body, and it depends primarily on the foot that is a cornerstone of it and on the moving machine for all its parts. This allows the soles of the footrest down on the ground, where the foot consists of 26 bones and the foot skeleton is a pillar, and the articulation of the foot bones encourages the foot to execute walking, jogging and jumping activities, and the power of the lower leg muscles helps it to do so, and the foot arch acts to bear the body weight and disperse it.

Moreover, any imbalance in the feet will expose certain postural defects as a result of this curvature's absence. This affects many of the motor skills that underly sports practices, such as balancing capacity and endurance, and the value of the study lies in evaluating the flatulence in the feet of some sports practitioners.

Problem of Research

Disappearance or reduction of the arch due to loosening of the laces results in a flat foot syndrome which is a structural abnormality of the foot that happens for a variety of reasons, including overstress and increased stress on the tissues around the foot due to work or various tasks that include standing too long, walking and running often or can be birth-related. The foot soles will greatly impact any vomiting distortions as the basis for a safe structure that influences the efficiency of some of the motor capability of sports activity. The researchers, therefore, defined the dimensions and solutions of this problem:

Aims of Research

- Identifying the level of flat feet, posture deformities, and certain motor skills of some sports practitioners.
- The impact of flat feet on some posture deformities.
- Identify the effect of splaying the legs on certain motor skills.

Hypothesis of Research

- Some sports practitioners differ in their degree of foot swelling.
- For some sports practitioners, there is a significant relationship between the level of flatness in the feet and some postural deformities.
- The degrees of the division of feet and some motor abilities of some sports professionals are significantly correlated.

Areas of Research

- As for the human field: It includes a group of sports practitioners who suffer from Flat feet (also called pes planus or fallen arches).
- Spatial domain: Gymnasium hall in the College of Physical Education and Youth Sports Stadium - Qadisiyah Governorate.
- Temporal domain: From 11/14/2014 to 1/3/2015.



2.1 The Method of Research

The researchers used the descriptive approach to the essence of the topic to be analyzed using the correlation process.

2.2 The Sample of The Research

It is the model that the researcher performs as a whole and the focus of his study on it and the test sample consisted of (12) sports practitioners suffering from splaying the legs and picked by chance (cross-section). The researcher selects a variety of individuals he encounters by chance. [\(1: 164\)](#) [\(2: 57\)](#)

2.3 Devices and Tools Used for Research

- 1 Acer computer
- 2 Electronic calculator
- 3 Length tape measure
- 4 Medical balance
- 5 white colour (1)
- 6 Dye brush.

2.4 Field Research Procedures

2.4.1 Exploratory Experience

Until beginning the main experiment on a sample consisting of (2) physical education students who suffer from flat feet, the researcher performed an exploratory experiment on 1/20/2018 to figure out the most significant obstacles that researchers may face in the main experiment and to know the time required to perform the main experiment.

2.4.2 Main Experiment

On 01/27/2018, the researcher experimented by evaluating the splattering of the feet for the experimental group and then determining the most relevant accompanying postural deformities (knock knees, back hunch, head dropping, back rotation) as well as checking the ability to walk, which is endurance, dynamic balance and balance test). An excellent product for checking (balance test) invalidity, reliability and objectivity has been established.

2.5 Statistical Means

- 1 The Arithmetic Mean
- 2 Standard Deviation
- 3 Simple Correlation Coefficient

3.View, analyze, and discuss the results

3.1 Display the arithmetic mean and standard deviations of the search variables:

Table. (1) This illustrates the importance of the arithmetic methods of the variables under analysis.

Variables	Tests	Measuring Unit	S	W
Flat Foot	Right Foot Print	Degree	8.70	3.50
	Left Foot Print	Degree	8.60	3.69
Posture Abnormalities	Right Shoulder Deviation	Cm	17.00	2.71
	Left Shoulder Deviation	Cm	17.20	3.43
	The Knees Chatter	Cm	5.00	2.00
	Spine Scoliosis	Cm	6.50	1.96



Variables	Tests	Measuring Unit	S	W
Motor Abilities	Head Fall	Cm	10.60	1.96
	Balance Test	Degree	53.50	8.59
	Dynamic Balance	Second	7.40	2.59
	Agility	Second	10.20	3.36

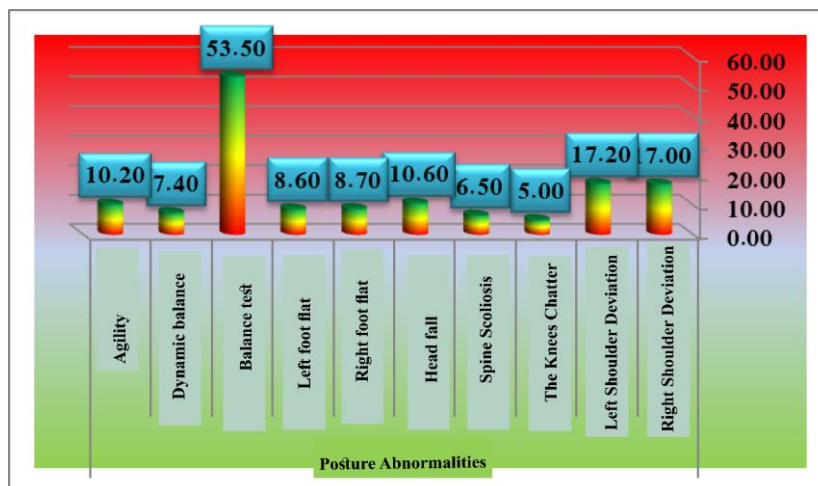


Fig. (1) This suggests the average of some of the subjects' anatomical deformities and motor ability

3.2 Presentation and study of the association values between some postural abnormalities and right foot splay:

Table (2) It indicates the values of the correlation coefficient between the flatness of the right foot and certain orthodontic deformities under analysis.

No.	Variables	S	W	Links *	Links Types
1	Shoulder/right deviation	17.00	2.71	0.41	Random
	Shoulder/left deviation	17.20	3.43	0.17	Random
2	The Knees Chatter / cm	5.00	2.00	-0.59	Intangible /Inverse
3	Spine Scoliosis	6.50	1.96	-0.72	Intangible /Inverse
4	Head fall	10.60	1.96	-0.64	Intangible /Inverse

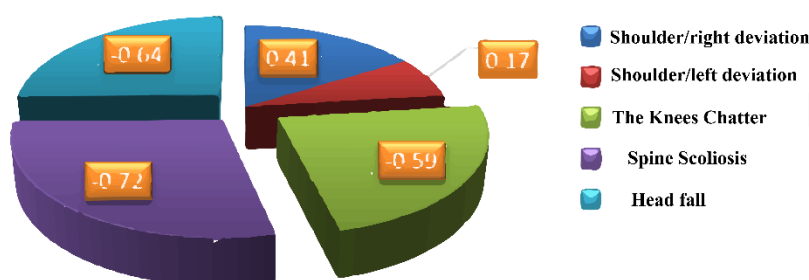


Fig. (2) Right foot flatness relationship with some postural deformities

The tabular value of the correlation coefficient is (0.576) at the degree (10) and the significance level (0.05). The association between the right foot splay and the knee flexion component, i.e. the less the foot arc corner (i.e. flat foot), was seen in Table (2) to be inversely important. The greater is the distance between the heel bones from inside and the significant inverse relationship between the right foot splay and

the variable back convexity, i.e. the greater the degree of angle of back The lower the angle of the foot arch, the more down the head goes.

3.3 Presentation and analysis of the correlation values between the flatness of the left foot and some postural distortions

Table (3) It shows the values of the coefficient of correlation between the flatness of the left foot and some of the anomalies understudy

No.	Variables	S	W	Links *	Links Types
1	Shoulder/right deviation	17.00	2.71	0.50	Random
	Shoulder/left deviation	17.20	3.43	0.52	Random
2	The Knees Chatter / cm	5.00	2.00	-0.80	Intangible /Inverse
3	Spine Scoliosis	6.50	1.96	-0.81	Intangible /Inverse
4	Head fall	10.60	1.96	-0.25	Intangible /Inverse

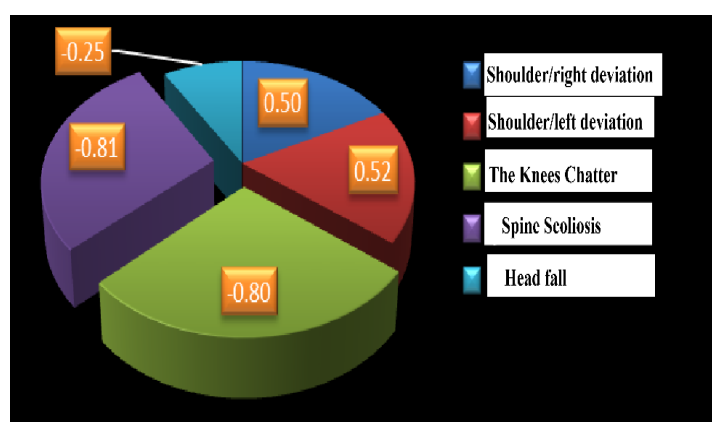


Fig. (3) Demonstrates the relationship of obliteration of the left foot and some postural deformities

Table (3) showed that the association was an inversely important relationship between the splay of the left foot and the component of the osteoarthritis of the knees, that is, the lower the angle of the foot arch (i.e. the splay of the foot), the greater the gap between the heel bones from the inside, and the significant correlation was inversely between the splay of the left. The opposite moral relationship, that is, the greater the flatness of the foot (the smaller the angle of the arch of the foot), the greater the fall of the head, was the same concerning the fall of the head.

3.4 Discussion the Effects of Flat Foot and Postural Deformities:

The rather low angle (less than 30 degrees) of the foot arcs and that the deformation was created by hereditary habit or by accident or disease, the deviations often commence functional deviations (minor) and if they are ignored or not timely handled, they become deviations of advanced structural (organic) difficulty. [\(3: 150\)](#)

In the deformations, that the corpora as a single entity are associated, i.e. the deformations of the base arch will result in multiple potential deformations that will conform to the arc's angles. Thus, the slight angle of the foot's arch allowing the person to tip his legs to within the feet and minimize the energy expended on ordinary circumstances 'is the situation in which the knees converge and converge inside with the gap between the heels of the medium.' The opposite moral connection between both feet occurred and the clenching of the knees. [\(4: 136\)](#)



3.5 Presentation and Review of Association Values Between Proper Maceration of The Foot and Some Motor Skills:

Table (4) It shows the value of the correlation coefficient between the right foot flatness and some of the motor abilities under analysis.

No.	Variables	S	W	Links *	Links Types
1	Balance/score test	53.50	8.59	0.87	intangible Positive
2	Dynamic balance / sec	7.40	2.59	-0.91	intangible Inverse
3	Agility / sec	10.20	3.36	-0.94	intangible Inverse

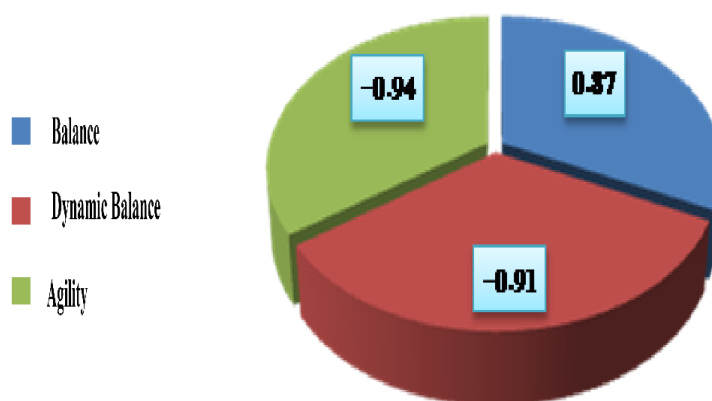


Fig. (4) Demonstrates the connection between right-foot maceration and certain motor abilities

Table (4) showed that the associations between the right foot splay and certain motor skills were important, as the correlation between the right foot splay and the balance test was (0.87) and was positive, as well as the correlation between the dynamic balance (-0.91) i.e. the individual's ability to survive On the dynamic balance equipment for as long as possible with the flatulence in the dynamic balance (-0.91) As for the relationship between flatulence of the right leg and endurance, the other was spiritual, and the cause for this is the rise in the surface area of the base of support on the balancing apparatus, which allowed the man to take the form of an arc. That is, the greater the angle of the foot arch (lack of flatulence), the less mobility, which means that the athlete will be more effective in adjusting the position of his body and trajectory in the shortest possible period, particularly when the athlete runs on the foot metatarsals and reduces the base of the brace.

3.6 Presentation and study of association qualities between northern foot flatness and some motor skills:

Table (5) It shows the values of the correlation coefficient between north foot flatness and certain motor skills under research.

No.	Variables	S	W	Links *	Links Types
1	Dynamic balance	53.50	8.59	0.38	Random
2	Dynamic balance / sec	7.40	2.59	-0.41	Random
3	Agility / sec	10.20	3.36	-0.48	Random



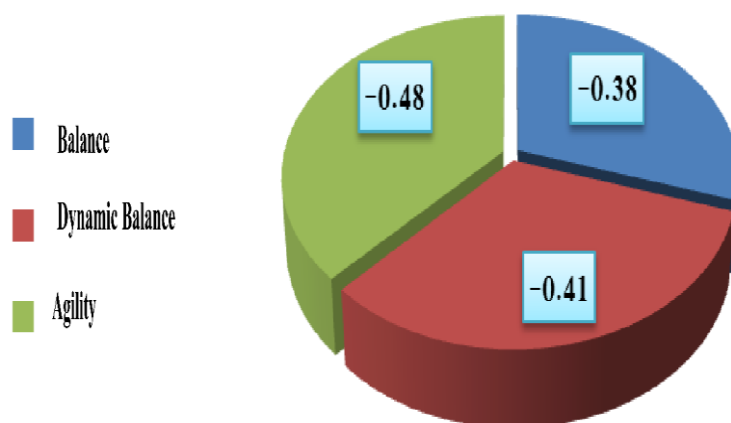


Fig. (5) Demonstrates The Correlation Between The North's Flatness And Some Motor Abilities:

The correlation associations between northern foot splay and certain motor skills were found to be random in Table (5), as the correlation relationship between flatulence and equilibrium was random (-0.38), as is the case with the correlation between northern foot splay and dynamic equilibrium, which amounted to (0.41).

As for the link between the relationship between palpation of the northern foot and endurance as achieved (-0.48). This indicates that no motor capabilities were associated with the northern foot splay.

3.7 Discuss the Results of Foot Flatting Relationships with Some Motor Abilities:

The occurrence of substantial associations between the right foot splay and certain motor ability is attributed to the fact that the foot used by the participants of the test sample is the right foot, which enhanced the likelihood of regulating it despite the prevalence of splaying in it, and this was apparent in the northern foot, as the presence of splatting contributed to the lack of such A correlation association. [\(5: 189\)](#)

The arches of the foot give the body the flexibility and power it needs to execute the different motions of coordination and stability. The foot gives an equal distribution of the weight dropping on it, so that it executes its duties with grace and fluidity and with minimum effort, while the arches give the foot a spring characteristic in the motions of walking, running and leaping, and allow it to adjust to uneven surfaces and a sudden change of direction with the help of the versatility that gives it the foot.

Saleh Bashir points out that the foot arch acts to spread the weight of the body over the various bones of the legs to promote the required movements, shield the body from shocks while running and jumping, and maintain the blood vessels. [\(6: 52-53\)](#)



4 Conclusions and Recommendations:

4.1 Conclusions

- 1 Flat feet will lead to multiple potential stance deformities.
- 2 The splay of the right foot corresponds to the following stance deformities (joining the feet, hunching the back, dropping head).
- 3 The splay of the north foot corresponds to the following stance deformities (restricting the feet hunching the back).
- 4 The splay of the right and left legs does not cause any deformities of the posture, such as (rounding of the shoulders)
- 5 The right foot flatulence improves some of the motor functions (equilibrium) and decreases endurance.
- 6 Northern foot flatulence does not impair those motor skills, such as coordination and agility.

4.2 Recommendation

- 1 Pay attention from infancy to the detection of human body deformities and attempt to establish recovery services for them.
- 2 Because of the great impact on other posture deformities, pay heed to the diagnosis of palpebral feet and aim to treat it early.
- 3 Build new instruments to assess the degree of separation of the foot.
- 4 Developing recovery services, along with physical fitness programs for individuals with deformities.
- 5 To reduce imbalance and the incidence of posture deformities, exercise programs should be geared towards the work of physical equilibrium between all muscles operating on the edges of the body.

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