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Study of Balancing and Flexibility among the Yogic and Aerobic Gymnast Players

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Abstract

The aim was to find out on balancing and flexibility among the yogic and aerobic gymnast players. Descriptive survey method was adopted. Twenty (20) each girl's Yoga players and Aerobic Gymnast players were selected of the age group ranges from 17–20 years. The selected variables were administrating the balance and flexibility. Data were considered by mean, standard deviation and t-test at the level of significant was 0.05. There were more significant differences of variables viz. sit & reach, bass stick and bridge up among girl's yoga and aerobic gymnastic players. Whereas there were insignificant differences of variables viz. stork stand, neck & truck extension and shoulder & wrist elevation among girl's yoga and aerobic gymnastic players.

Keywords: Yoga, Aerobic Gymnast, Balance, Flexibility

Introduction

Mostly state indeed to complement efficient whereabouts of one's structure, yoga is associated to the physical education as well as aerobics is shared expressions. Aerobics mutual with an aerobic assessment permitting to admire formerly need exercising widespread to progress their aerobic aptitude. The physical fitness determined an extensive level and imitates the regard of health. Comparatively innovative discipline in gymnastic family is Aerobic gymnastic, the goal to accomplish superior efficient, co-ordination and consistency construction having incomparable arrangement and collected of movements that are branded permitting to effort.

Physique's skill to achieve movements by bulky or varied generosity of movement is flexibility. Balance remains the form of an individual talented to uphold a definite point deprived of dropping. Towards

sustain steadiness, flexibility and balance, a diversity of exercises, exist actual and safe to relate. Thus the aims purpose to find out on "Study of balancing and flexibility among the yogic and aerobic gymnast".

Methods

Descriptive survey method was adopted to find the aim of the study. Twenty (20) each girl's Yoga players from Shri Shri RadhaGovinda, Yoga Association and Aerobic Gymnast players from Khuman Lampak Indoor Stadium, Manipur were selected of the age group ranges from 17–20 years. All the subjects were medically fit to participate. The designated variables were administrating the balance and flexibility (Table 1). Collected data were considered by mean, standard deviation and t-test. For testing the significant difference of the variables, the level of significant was 0.05.

Table 1: Presentation of the selected variables

Variables	Criterion measure	Unit
Balance	Stork stand	sec
	Bass stick	sec
Flexibility	Sit & reach	inches
	Bridge up	inches
	Neck & truck extension	inches
	Shoulder & wrist elevation	inches

Results

The assessment of balance and flexibility among yoga and aerobic gymnastic players were statistical analysed. The data obtained between the different groups of players were highlighted (Table 2) and hence deliberated the outcomes.

Balance variables

Stork stands among girl's yoga and aerobic gymnastic players of mean and standard deviation were 25.1± 5.48 and 34.1±9.31 respectively. Between the girl's group players, mean value of aerobic gymnastic player was greater than yoga player. T-test value among girl's yoga and aerobic gymnastic players emphasised that calculated value (0.0006) was much lesser than the table value. Therefore, there was no significant difference of stork stand among girl's yoga and aerobic gymnastic players.

Bass stick among girl's yoga and aerobic gymnastic players of mean and standard deviation were 9.2 ± 3.68 and 17.05 ± 4.52 respectively. Between the girl's group players, mean value of aerobic gymnastic player was much greater than yoga player. T-test value among girl's yoga and aerobic gymnastic players emphasised that calculated value (5.34) was greater than the table value. Therefore, there was significant difference of bass stick among girl's yoga and aerobic gymnastic players.

Flexibility variables

Bass stick among girl's yoga and aerobic gymnastic players of mean and standard deviation were 18.95 ± 3.02 and 27.5 ± 1.93 respectively. Between the girl's group players, mean value of aerobic gymnastic player was much more than yoga player. T-test value among girl's yoga and aerobic gymnastic players emphasised that calculated value (5.45) was much bigger than the table value. Therefore, there was significant difference of bass stick among girl's yoga and aerobic gymnastic players.

Bridge up among girl's yoga and aerobic gymnastic players of mean and standard deviation were 11.45 ± 1.4 and 16.4 ± 3.4 respectively. Between the girl's group players, mean value of aerobic gymnastic player was better than yoga player. T-test value among girl's yoga and aerobic gymnastic players emphasised that calculated value (4.75) was much larger than the table value. Therefore, there was significant difference of bridge up among girl's yoga and aerobic gymnastic players.

Neck & truck extension among girl's yoga and aerobic gymnastic players of mean and standard deviation were 1.8 ± 0.77 and 3.15 ± 1.66 respectively. Between the girl's group players, mean value of aerobic gymnastic player was much greater than yoga player. T-test value among girl's yoga and aerobic gymnastic players emphasised that calculated value (0.002) was much lesser than the table value. Therefore, there was no significant difference of neck & truck extension among girl's yoga and aerobic gymnastic players.

Shoulder & wrist elevation among girl's yoga and aerobic gymnastic players of mean and standard deviation were 12.35 ± 2.5 and 14.85 ± 2.74 respectively. Between the girl's group players, mean value of aerobic gymnastic player was greater than yoga player. T-test value among girl's yoga and aerobic gymnastic players emphasised that calculated value (0.005) was much lesser than the table value. Therefore, there was no significant difference of shoulder & wrist elevation among girl's yoga and aerobic gymnastic players.

Table 2: Statistical data of balance and flexibility among girl's yoga and aerobic gymnastic players

Variables		**Yoga Player (Mean ± SD)**	**Aerobic Gymnast Player (Mean ± SD)**	**t-test**
Balance	Stork stand	25.1 ± 5.48	34.1 ± 9.31	0.0006
	Bass stick	9.2 ± 3.68	17.05 ± 4.52	5.34
Flexibility	Sit & reach	18.95 ± 3.02	27.5 ± 1.93	5.45
	Bridge up	11.45 ± 1.4	16.4 ± 3.4	4.75
	Neck & truck extension	1.8 ± 0.77	3.15 ± 1.66	0.002
	Shoulder & wrist elevation	12.35 ± 2.5	14.85 ± 2.74	0.005

*0.05 level of significant

Discussion and Conclusion

From the outcomes study, it revealed that all entire mean values of variables of aerobic gymnast players were larger than yoga players. There were more significant differences of variables viz. sit & reach, bass stick and bridge up among girl's yoga and aerobic gymnastic players. Whereas there were insignificant differences of variables viz. stork stand, neck & truck extension and shoulder & wrist elevation among girl's yoga and aerobic gymnastic players. Yoga is a tactic to fitness that purposes to assistance all works of the body effort composed in co-ordination. Aerobic gymnastics is a sport with boundless methodological petition and wants explicit appearances in some ability: coordination, anaerobic endurance, relative strength, balance, explosive power or strength and flexibility (Bencke *et al*., 2002; Bressel *et al*., 2007; López *et al*., 2002; Núñez *et al*., 2013; Werner et al., 2011). A steady aerobic exercise involuntary might progress reasoning and motoric skills.

Bibliography

Alexander MJ. (1991) Physiological characteristics of elite and sub-elite rhythmic gymnastics. *Journal of Human Movement Studies*, 20: 99-127.

Aljasir B, Bryson M and Al-shehri B. (2010). Yoga Practice for the management of type II diabetes mellitus in adults. *Evidence Based Complement Alternate Medicine*, 7: 399-408.

Alpkaya U. (2013). The effects of basic gymnastics training integrated with physical education courses on selected motor performance variables. *Educational Research and Reviews*, 8(7): 317-321.

Alves. (2008). Is aerobic dance good for you. *Medical Journal*, 8: 183-183.

Baláš J and Bunc V. (2007). Short-term influence of climbing activities on strength, endurance and balance within school physical education. *International Journal of Fitness*, 3(2).

Behm DG and Kibele A. (2007). Effects of differing intensities of static stretching on jump performance. *European Journal of Applied Physiology*, 101(5): 587- 594.

Bencke J, Damsgaard R, Sækmose A, Jørgensen P, Jørgensen K and Klausen K. (2002). Anaerobic power and muscle strength characteristics of 11 years old elite and non-elite boys and girls from gymnastics, team handball, tennis and swimming. *Scandinavian Journal of Medicine & Science in Sports*, 12(3): 171- 178.

Bintari NP, Anita N and Sulistyarto S. (2021). The effect of hatha yoga and namaskar surya yoga on flexibility and balance in women. *Budapest International Research and Critics in Linguistics and Education Journal*, 4(3): 982-995.

Bouchard C, Thibault MC and Jobin J. (1981). Advances in selected areas of human work physiology. *American Journal of Physical Anthropology*, 24(S2): 1-36.

Boyle CA, Sayers SP, Jensen BE, Headley SA and Manos TM. (2004). The effects of yoga training and a single bout of yoga on delayed onset muscle soreness in the lower extremity. *Journal of Strength Conditioning Research*, 18: 723-9.

Bressel E, Yonker JC, Kras J and Heath EM. (2007). Comparison of static and dynamic balance in female collegiate soccer, basketball, and gymnastics athletes. *Journal of Athletic Training*, 42(1): 42.

Čuljak Z, Ćavar M, Crnjac D, Marić K and Ćorluka M. (2011). Effectiveness of the school of gymnastics in 7 years old children. *Sport Scientific & Practical Aspects*, 8(2).

Donohue B, Miller A, Beisecker M, Houser D, Valdez R, Tiller S and Taymar T. (2006). Effects of brief yoga exercises and motivational preparatory interventions in distance runners: Results of a controlled trial. *British Journal of Sports Medicine*, 40: 60-3.

Gallon D, Rodacki AL, Hernandez SG, Drabovski B, Outi T, Bittencourt LR and Gomes AR. (2011). The effects of stretching on the flexibility, muscle performance and functionality of institutionalized older women. *Brazilian Journal of Medical and Biological Research*, 44(3): 229-235.

Gionet N, Babineau C and Bryant D. (1986). Physiological evaluation of elite Canadian rhythmic sportive gymnasts (RSG). *Canada Journal of Applied Sport Science*, 11(15).

Irfannuddin, Fediani Y, Santoso B, Kadir MR and Dewi MR. (2018). The recommended aerobic gymnastics has better effects on improving cognitive and motoric ability in children. *Bioscientia Medicina*, 2(3): 25-34.

Jemni M, Sands WA, Friemel F, Stone MH and Cooke CB. (2006). Any effect of gymnastics training on upper-body and lower-body aerobic and power components in national and international male gymnasts? *The Journal of Strength & Conditioning Research*, 20(4): 899-907.

Listyawati WLPA, Rustanti M and Suhardi. (2019). The effect of yoga exercises on trunk flexibility in adult women age 30-45 years. *Journal of Integrated Health*, 3(1)i: 26–30.

Lopes VP, Rodrigues LP, Maia JA and Malina RM. (2011). Motor co-ordination as predictor of physical activity in childhood. *Scandinavian Journal of Medicine & Science in Sports*, 21(5): 663- 669.

Lucertini F, Spazzafumo L, De LF, Centonze D, Valentini M and Federici A. (2013). Effectiveness of professionally guided physical education on fitness outcomes of primary school children. *European Journal of Sport Science*, 13(5): 582-590.

Marković KŽ, Čavar I and Sporiš G. (2012). Changes in gymnasts motor abilities during the nine month training process of female gymnasts 5-6 years of age. *Science of Gymnastics Journal*, 4(1): 45-54.

Mehrtash M, Rohani H, Farzaneh E and Nasiri R. (2015). The effects of 6 months specific aerobic gymnastic training on motor abilities in 10 - 12 years old boys. *Science of Gymnastics Journal*, 7(1): 51-60.

Mekayanti IA, Indrayanti and Dewi K. (2015). Optimizing the flexibility, balance, and strength of the human body instantly by using the "Secret Method". *Virgin Journal*, 1(1): 40-49.

Munawaroh S and Triariani Y. (2019). The effect of yoga gymnastics on static balance in the elderly 2019. *Journal of Human Care*, 4(2): 101-107.

Núñez RA, Gutiérrez-Sánchez Á and Santana, MV. (2013). Analysis of incidence of injury in Spanish elite in aerobic gymnastics. *Revista Brasileira de Medicina do Esporte*, 19(5): 355-358.

Pehkonen M. (2011). Quality of the teaching process as an explanatory variable in learning gymnastics skills in school physical education. *Science of Gymnastics Journal*, 2(2): 29-40.

Polsgrove MJ, Eggleston BM and Lockyer RJ. (2016). Impact of 10-weeks of yoga practice on flexibility and balance of college athletes. *International Journal of Yoga*, 9(1): 27–34.

Rani SU and Sin SP. (2013). Effect of selected yogic practices and aerobic dance on health related physical fitness variables among Nicobari women students. *International Journal of Physical Education, Fitness and Sports*, 2(4): 76-79.

Sands B, Caine DJ and Borms J. (2003). Scientific aspects of women's gymnastics (Vol. 45). Karger Medical and Scientific Publishers.

Sarsan A, Ardiç F, Ozgen M, O. Topuz O and Sermez Y. (2006). The effects of aerobic and resistance exercises in obese women. *Clinical Rehabilitation*, 20: 773-82.

Sutherland G, Andersen MB and Stoové MA. (2001). Can aerobic exercise training affect health-related quality of life for people with multiple sclerosis? *Journal of Sports & Exercises Psychology*, 23: 122-135.

Tadeu PE, Raso V, Scharlach RC and Kasse CA. (2014). Hatha yoga on body balance. *International Journal of Yoga*, 7(2): 133–137.

Tihanyi A. (2005). The effects of guided systematic aerobic dance program on the self-esteem of adults. *Journal of General Hospital Psychiatry*, 37: 141-150.