



Compensating For The Lack Of Physical Activity In Female Students Through Handball Training

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OPEN ACCESS

SUBMITTED 24 August 2025
ACCEPTED 20 September 2025
PUBLISHED 22 October 2025
VOLUME Vol.07 Issue10 2025

CITATION

Davronbek Qambarov. (2025). Compensating For The Lack Of Physical Activity In Female Students Through Handball Training. *The American Journal of Interdisciplinary Innovations and Research*, 7(10), 68–72.
<https://doi.org/10.37547/tajjir/Volume07Issue10-08>

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Abstract: The study examines the issue of insufficient physical activity among female students and explores the effectiveness of handball training as a compensatory mechanism for improving their physical fitness, health, and psycho-emotional stability. In the context of modern higher education, sedentary learning processes and academic stress significantly reduce students' physical activity, leading to a decline in adaptive capacity and an increased risk of functional disorders. This research, conducted at Gulistan State University between 2019 and 2022, assessed 102 first-year female students aged 17–19 who had no prior sports training but expressed an interest in handball. Using questionnaires, professionographic analysis, physical and functional assessments, and health diagnostics based on the G.L. Apanasenko method, the study revealed a pronounced deficit of motor activity in the majority of participants.

The experiment demonstrated that systematic handball training significantly enhanced the students' aerobic endurance, motor coordination, and cardiovascular efficiency while improving their social engagement and teamwork skills. The intervention also contributed to the normalization of vital indicators such as lung capacity, muscle strength, and body composition. Data analysis indicated a positive correlation between regular handball training and improvements in physical and mental well-being. Consequently, handball was shown to be an effective pedagogical and recreational tool for counteracting hypokinesia and fostering the holistic development of female students.

The findings emphasize the necessity of integrating innovative handball-based training programs into university curricula as a structured approach to promoting health and preventing lifestyle-related diseases among young women. The study highlights that regular participation in sports not only compensates for the lack of physical activity but also supports students' academic performance and overall quality of life.

Keywords: Physical development, handball, motor readiness, female students, health promotion, university sports, hypokinesia.

Introduction: We mobilize all the strength and resources of our state and society to ensure that our youth grow into independent thinkers with high intellectual and moral potential, becoming individuals who can compete globally without falling behind in any field and live happily [1]. The state policy of the Republic of Uzbekistan has made the development of physical education and sports, as well as the upbringing of a healthy generation, a priority direction. In this regard, the decree of the President of the Republic of Uzbekistan Sh.M. Mirziyoyev, No. PF-5924 dated January 24, 2020, titled "On Measures to Further Improve and Popularize Physical Education and Mass Sports in the Republic of Uzbekistan," and the resolution No. PQ-5148 dated June 16, 2021, titled "On Organizational Measures for the Implementation of a System to Assess the Physical Fitness Level of the Population," play an important role in enhancing the activities of the younger generation in the field of physical education and sports in our country.

It is well known that the long-term reforms in the socio-economic sphere of our society do not always positively impact the lifestyle, work, and daily life of various population groups, especially school-age youth. During their studies at higher education institutions, the complexity of the professional education program and the process of mastering it limit the physical activity of female students. As a result, they experience chronic mental and intellectual stress. Due to the lack of physical activity, the adaptation process of female students to the education system proceeds slowly and painfully, which leads to nervous disorders and various cardiovascular diseases [2,4,6]. The low level of physical activity negatively affects the health of women, particularly female students in higher education institutions [3,5,7]. The problem of hypokinesia among school-age youth has been studied by scientists in our Republic such as S.R. Salamov, F.A. Kerimov, F.A. Koshbaxtiev, R.D. Kholmukhammedov, R.M. Masharipov, as well as by scientists from the CIS including M.S. Abramov, M.S.

Zhukov, L.N. Akulova, and P.K. Anokhin.

Purpose of the study:

To determine the physical development, motor readiness, and health levels of female students in higher education institutions.

Methods

Analysis of literature and regulatory documents, conducting questionnaire surveys with the studied group, assessing physical development and motor readiness of female students, evaluating health levels of female students using the G.L. Apanasenko method, pedagogical experimentation, and mathematical statistical analysis.

Organization of the research:

The research was conducted at the Department of "Theory and Methodology of Physical Culture" at Gulistan State University during the 2019–2022 academic years. The study involved 102 first-year female students who, based on medical indicators, belonged to the main age group of 17-19 years old. These students expressed a desire to regularly engage in handball and had no prior sports experience.

Results And Discussion

All female students who participated in the survey were admitted to the university from general secondary schools and secondary specialized educational institutions. According to the results of our study, considering the traditional school physical education program of two hours per week and an average of 5-6 hours of classroom time per day, students are unable to maintain an adequate level of physical activity. Based on this, it can be assumed that there is a chronic deficiency of physical activity in the bodies of the first-year female students involved in the study. Therefore, in analyzing the initial levels of physical development, motor readiness, and health of the female students, we took into account the previous regime of school life and the new type of activity related to studying in higher education. For this purpose, a questionnaire survey was conducted among the first-year female students. The data obtained confirm that the girls led a "low-activity" lifestyle before entering the university (see Table 1).

Table 1
Description of the movement activity of female students based on questionnaire

materials (nq102)

t/t	Structure of movement activity	Number of cases	
		abs	%
	Availability of sports categories.	3	2,7
	Participation in sports clubs.	3	2,7
	Participate in walking tours.	30	32,3
	Participate in cross-country training.	37	39,8
	Morning physical education exercises:		
	- continuous	-	-
	- occasionally	58	62,4
	Participation in sports games:		
	- continuous	3	2,7
	- occasionally	69	74,2
	Attitude to physical education classes:		
	- the need for training is a need	14	15
	- just for the price	79	85
	What intensity of physical activity is liked by the trail:		
	- high	19	20
	- middle	52	56
	- slow	22	24

It can be seen from the table that the analyzed contingent rarely participates in morning physical education exercises and mass sports events, as well as in cross-country training, tourist trips and sports competitions.

The questionnaire showed that only 3% of the participants were engaged in sports clubs, and it was these students who had sports degrees and regularly participated in sports events. 85% of students noted that they attend physical education classes only to get a grade. All this indicates a low level of physical culture literacy and a lack of need for regular physical exercises.

A clear description of the various forms of activity of female students during their studies in higher education was of great importance to us. For this, a professioniographic analysis of their daily routine was

carried out.

Female students spend about half of their daily time in a static state, and taking into account night sleep, the time they spend in a sedentary state reaches an average of 80% of the day. Only 2% of the time is allocated to physical education classes outside of class hours.

A general analysis of the professional profile showed that the vital activity of female students in the university environment continues against the background of hypokinesia, which does not lead to negative consequences and is one of the main causes of high morbidity. According to the data of the university polyclinic, 30% of the examined contingent (75 people) belonged to the main medical group, that is, practically healthy girls, and during the 1st semester it was determined that there was 170 hours of loss of work (loss of work) (see Table 2).

Table 2

Professiographic description of female student activities (n=102)

№	Activity structure	Duration during the day	
		abs	%
1	Attending lectures	2,5	10,4
2	Laboratory exercises	2,6	10,6
3	Independent training	3	12,5
4	Creative activityt	0,4	1,6
5	Reading literature	2,5	10,4
6	Cultural events	0,6	6
7	Extracurricular activities	0,2	2
8	Free time	4,9	19,3
9	Sleep duration	7,3	32

The level of physical development was assessed according to the generally accepted method, which included measuring height, weight, chest excursion, vital capacity of the lungs, and hand dynamometry.

Three indicators were of greatest interest for a qualitative description of the initial state of physical development of female students: chest excursion, vital capacity of the lungs (VLC) and right hand (cuff) strength.

Chest excursion was on average 8 cm, vital capacity of the lungs was around 2620-2680 cm., and right hand strength did not exceed 25 kg. on average. These data indicated that the physical development of the examined contingent was not at the normal level.

In our scientific research work, the preliminary data obtained on the motor readiness of female students of the first stage confirmed the inadequacy of the traditional motor regime.

As a result, the Cooper test indicator was on average 1800 m, long jump from a place - 170 cm. According to the preliminary data obtained, the low level of development of the basic motor qualities of female students of the first stage, that is, the significant lack of motor activity in the period before entering a higher educational institution, was confirmed.

The data obtained on the initial level of health of female students indicate that the requirements for the school program for physical training are insufficient.

Conclusion. In the initial period of preliminary

research, data were obtained indicating that the traditional educational program for physical education of secondary schools cannot help students maintain a sufficient level of motor activity.

It was also found that the imbalance of the movement regime of female students of the first stage is such that about half of the day they are in a state of hypokinesia, and taking into account night sleep, the time they spend in this state reaches an average of 80%. All this is due to low motor activity, which is not only due to the high incidence rate (up to 30%), but also due to the low level of physical development, motor readiness and health of female students. The analysis of preliminary data showed that the motor readiness indicators of female students were significantly lower than those provided for in the physical education standards for higher education students. Preliminary data on the level of health of female students clearly confirmed the negative consequences of the lack of motor activity that arose during school years.

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