Study "National University Championship 2023" "National University Games - 2023"

Aida Shehu*, & Marlind Pelushi

Sports University of Tirana Faculty of Movement Sciences Department of Collective Sports

*Corresponding author: Aida Shehu, Sports University of Tirana Faculty of Movement Sciences Department of Collective Sports Albania.

Introduction

Based on the sports calendar of the University of Sports in Tirana and the Municipality of Tirana, a nationwide study was conducted titled "Physical Fitness Level of Students Participating in the 2023 National University Championship". For this study, in May 2023, students from both public and private universities participating in the student games in volleyball, basketball and futsal were tested. The study program included around 253 students (98 females and 155 males).

Objective

The aim of the study was to determine the physical (anthropometric) condition, potential, and performance expectations (BMI index) of participants in the National Universiade Championship and assess the possibility of forecasting the representation of our university in the NATIONAL and INTERNATIONAL UNIVERSITY GAMES. The Sports Department of the University of Tirana, in collaboration with the Department of Sports in FSHL, UST, through physical (anthropometric) tests and competition results in events and matches, carried out the study with the theme "National University Games - 2023".

The Study also Aimed to

*   Highlight the anthropometric physical level of participants in the championship.
*   Highlight the potential for our country's representation in international Universiades.
*   Compare results and technical indicators of athletes in relation to previous national championship benchmarks.
*   Provide suggestions, problems, tasks, and goals for the future.

Methodology

For the implementation of this study, the following methods were used are:

*   Control method through anthropometric tests.
*   BMI indicator at the sport and university level.
*   Protocol for technical and tactical elements of competitions and sports matches.
*   Analysis and correlation methods.
*   Full descriptive analysis of anthropometric measurements for each university, each sport, and the participant group, covering mean values, standard deviation, maximum, and minimum values.

Additionally, all test and questionnaire results will be compared between our athletes and other countries on measurable parameters.

Thus, the methods used were testing, highlighting, and correlational.

Tests Used: A. Anthropometric Indicators

*   Body height (cm)
*   Body mass (kg)
*   BMI index

Study Analysis

This study analyzed data from participants in the sports disciplines of volleyball, basketball, and futsal. A total of 253 subjects (male and female) from 11 participating universities were tested.

Participation

Nr.	University	Male (M)	Female (F)	Total
1.	UST	20	12	32
2.	UT	18	10	28

|				
3.	U.L. GURAKUQI	15	8	23
4.	U.A. XHUVANI	17	12	29
5.	U.F. NOLI	10	10	20
6.	UMB	20	12	32
7.	U.MESDHETAR	10	6	16
8.	ZONJA K.M.	12	8	20
9.	U.POLIS	13	6	19
10.	INST. KANADEZ	10	6	16
11.	KOLEGJ. U. BIZN	10	8	18
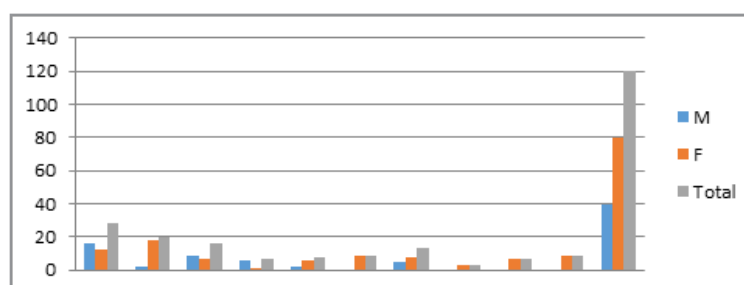
As seen in the graph, the number of participants in the championship is somewhat satisfactory but not uniform across universities. The male-to-female ratio is uneven, with more males participating—153 male students versus only 98 females. It should be emphasized that the number of participants is very low for both males and females. The most complete participation was seen from UST, UT, U.A. XH, and UMB for both males and females.

At the University Level (Female Participants)

Nr.	University	Age	Height (cm)	Weight (kg)	BMI
1.	UST	19	170	64	22.1
2.	UT	19	171	65	22.2
3.	U.L. GURAKUQI	19	168	62	22.0
4.	U.A. XHUVANI	20	174	52	17.2
5.	U.F. NOLI	22	169	71	24.9
6.	UMB	20	169	59	20.7
7.	U.MESDHETAR	22	163	59	22.2
8.	ZONJA K.M.	22	158	57	22.8
9.	U.POLIS	19	164	66	24.5
10.	INST. KANADEZ	22	161	59	22.8
11.	KOLEGJ. U. BIZN	20	162	60	22.9
Total		19.6	166.7	60.6	21.8
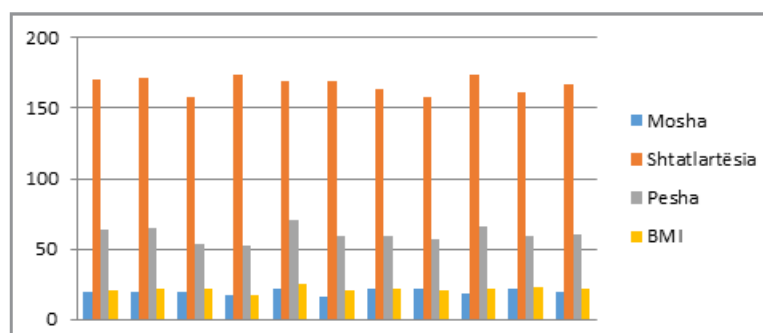
The analysis of the anthropometric indicators among female participants from the 11 universities shows that UST, UAXH, and UT have the highest average height at 172 cm, while ZONJA K.M. has the lowest at 158 cm. However, it should be empha-

sized that the overall height indicator for females, with an average of 166.7 cm, is relatively low, considering that the participants were involved in team sports where height is a significant factor.

Male Participants

Nr.	University	Age	Height (cm)	Weight (kg)	BMI
1.	UST	20	180	71	21.9
2.	UT	21	175	78	25.5
3.	U.L. GURAKUQI	20	181	85	25.9
4.	U.A. XHUVANI	21	179	71	22.2
5.	U.F. NOLI	23	180	90	27.8
6.	UMB	20	184	65	19.2
7.	U.MESDHETAR	22	175	67	21.9
8.	ZONJA K.M.	22	178	72	22.7
9.	U.POLIS	19	177	75	23.9
10.	INST. KANADEZ	22	172	65	22.0
11.	KOLEGJ. U. BIZN	20	175	70	22.9
Average		20.9	177.8	73.5	23.3

In the analysis of anthropometric indicators among male participants from the 11 universities, the highest height averages were observed at UMB, UST, ULG, and UFN, with an average height of 181 cm. The lowest height indicator, at 172 cm, was recorded at INST. KANADEZ, which is uncharacteristic for this university. However, it should be emphasized that the overall average height for male participants, at 177.8 cm, is considered low, especially considering that these athletes participated in team sports where height is a significant factor.

Team and Individual Performance
University of Sports (UST), Tiranë – Females
Average | 19 | 170 cm | 64 kg | BMI 22.1

The female team from UST presented with an average height of 170 cm and a BMI of 22.1, which is within the normal weight-to-height ratio. However, the height average is considered low compared to other teams, especially since Zonja K.M. had the lowest height among participants. As a university focused on sports, it is expected that the height indicator should be higher.

University OF Sports (UST), Tiranë – Males
Average | 20 | 180 cm | 71 kg | BMI 21.9

The male team from UST had an average height of 180 cm and a BMI of 21.9, which is also within a normal range. However, similar to the female team, the height is lower compared to other teams. Given that UST is a sports-focused university, it would be expected that both male and female participants have a higher average height in comparison to teams from other universities.

University "Marin Barleti" (UMB) – Females
Average | 20 | 169 cm | 59 kg | BMI 20.7

The female team from UMB presented an average height of 169 cm and a BMI of 20.7, which is considered a healthy weight-to-height ratio. The height average is relatively good, especially considering that UMB had the highest participation numbers, with players including some over 180 cm in height.

University "Marin Barleti" (UMB) – Males
Average | 20 | 184 cm | 65 kg | BMI 19.2

The male team from UMB had an impressive average height of 184 cm, with a BMI of 19.2, indicating a very good physical condition. The team is particularly tall, and the BMI is well within the healthy range.

University "UT" – Females
Average | 19 | 171 cm | 65 kg | BMI 22.2

The female team from UT presented an average height of 171 cm and a BMI of 22.2, which is within the healthy range. However, the height indicator is lower than expected, especially when compared to other teams in similar sports categories.

University "UT" – Males
Average | 21 | 175 cm | 78 kg | BMI 25.5

The male team from UT presented with an average height of 175 cm and a BMI of 25.5, which is within the normal range, although slightly on the higher side. The height indicator is good, especially in comparison to other teams in this study.

University "L. Gurakuqi" – Females
Average | 17 | 174 cm | 52 kg | BMI 17.2

The female team from U.L. Gurakuqi had an average height of 174 cm, with a low BMI of 17.2, indicating a potentially underweight condition for some players. However, the height is relatively good.

University "L. Gurakuqi" – Males
Average | 20 | 181 cm | 85 kg | BMI 25.9

The male team from U.L. Gurakuqi presented an impressive average height of 181 cm, with a BMI of 25.9, which indicates a very good physical condition.

University "A. Xhuvani" – Males
Average | 21 | 179 cm | 71 kg | BMI 22.2

The male team from U.A. Xhivani had an average height of 179 cm and a BMI of 22.2, which is considered to be a good physical condition.

University "A. Xhuvani" – Females
Average | 20 | 174 cm | 52 kg | BMI 17.2

The female team from U.A. Xhovani had an average height of 174 cm and a BMI of 17.2, which is within a normal range but could be considered a bit high, especially for female participants, as their weight average was also higher than expected.

University "Fan Noli" – Females
Average | 22 | 169 cm | 71 kg | BMI 24.9

The female team from U.F. Noli presented with an average height of 169 cm and a BMI of 24.9, which is within the normal range, although the height is on the lower end for female athletes in team sports.

University "Fan Noli" – Males
Average | 23 | 180 cm | 90 kg | BMI 27.8

The male team from U.F. Noli had an average height of 180 cm and a BMI of 27.8, which is at the higher end of the BMI scale but still considered within the normal range. The height indicator is strong.

University "Mesdhetar" – Females
Average | 22 | 163 cm | 59 kg | BMI 22.2

The female team from U.Mesdhetar presented with an average height of 163 cm and a BMI of 22.2, which is within the healthy range. However, the height could be considered slightly below average for female participants in competitive team sports.

University "Mesdhetar" – Males
Average | 22 | 175 cm | 67 kg | BMI 21.9

The male team from U.Mesdhetar had an average height of 175 cm, which is quite good, and a BMI of 21.9, which is within the normal range.

Conclusion
In summary, while the study shows an encouraging level of physical fitness among the student-athletes, there is a general trend toward lower-than-expected height averages for many of the teams, especially in comparison to typical requirements in sports like volleyball and basketball. For a university focused on sports, it is expected that both male and female participants would show higher averages in height and physical fitness. Universities like UMB, U.L. Gurakuqi, and UST generally showed strong performances in terms of height and BMI, while others such as U.Mesdhetar and U.F. Noli had more mixed results.

"Zonja E Keshillit Te Mire" Female
1.   Average: 22, 158 cm, 57 kg, BMI: 22.8.

"Zonja E Keshillit Te Mire" Male
1.   Average: 22, 178 cm, 72 kg, BMI: 22.7

For males, the "ZONJA E KESHILLIT TE MIRE" team presented with players having an average height of 178 cm and a BMI of approximately 22.7, which is within the normal range. The level of stature is also good, especially in comparison to other teams.

"Polis University" Female
1.   Average: 18, 164 cm, 66 kg, BMI: 24.5.

"Polis University" Male
1.   Average: 19, 177 cm, 75 kg, BMI: 23.9

For males, the "POLIS" team presented with players having an average height of 177 cm and a BMI of approximately 23.9, which is within the normal range. The level of stature is also good, especially in comparison to other teams.

"Canadian Institute" Female
1.   Average: 22, 161 cm, 59 kg, BMI: 22.8.

"Canadian Institute" Male
1.   Average: 22, 172 cm, 65 kg, BMI: 25.0

For males, the "CANADIAN INSTITUTE" team presented with players having an average height of 181.3 cm and a BMI of around 25.99, which is within the normal range. The level of stature is also good, especially in comparison to other teams.

"U. Business College" Female
1.   Average: 20, 162 cm, 60 kg, BMI: 22.9.3.

"U. Business College" Male
1.   Average: 20, 175 cm, 70 kg, BMI: 22.9

For males, the "U.BUSINESS COLLEGE" team presented with players having an average height of 175 cm and a BMI of approximately 22.9, which is within the normal range. The level of stature is also good, especially in comparison to other teams.

Comparisons between the two Universiades, 2022 and 2023
Although the changes in numbers and sports were not entirely consistent, we tried to make some comparisons based on the collected data. Nevertheless, the data are valid for making comparisons continuously from one championship to the next. The data show that:

Year	2022	2023
Indicator	Male	Female
Age - avg.	22.72	20.4
Height - avg.	186.03	171.35
Weight - avg.	82.01	59.23
BMI	23.76	20.52

In general, for both genders, the average age in the 2023 championship is lower, which is a result of the awareness of educa-

tors to include students within the student age group, gradually eliminating older age groups. The average height in the 2023 games is also lower for both males and females, although the male height, although lower, is still satisfactory. However, more concerning for both genders is the weight ratio, which is still higher, even though in terms of height, students in 2022 performed better. As a result, the BMI index for participants in the 2022 Universiade was better. (For females, it seems the index is better in 2023.) However, in this indicator, even the 2022 Universiade students are within the normal range, rated as good, i.e., with the same evaluation.

Some Conclusions
- The study is part of ongoing projects for studying university games at UT.
- Such studies create the opportunity to understand certain physical anthropometric parameters of participating students and the possibility of linking data with other research in the following years.
- In general, the presentation of the tested and analyzed parameters showed differences between genders (which is natural) but also between sports, universities, and geographical-demographic distribution. As a result, the technical, tactical, and performance outcomes varied.
- The age of the competitors in this championship, both males and females, aligns with the most active student age. For females, the average age was 19.6, and for males, it was 20.9. The youngest age was represented by UST, UT, ULG, and UP universities for females (19 years old), while for males, it was represented by Polis University (19 years old).
- The average height of the competitors in the 3 sports was: for females 166.7 cm and for males 177.8 cm. The university with the highest male height was UMB (184 cm) and for females, it was UAXH (174 cm).
- The average weight of the competitors in the 3 sports was: for females 60.6 kg and for males 73.5 kg. The lowest weight for males was at UMB and the Canadian Institute (65 kg), and for females, it was at UAXH (52 kg).
- In the BMI index overall, for the competitors in the 3 sports, it was: for females 21.81 and for males 23.3. The lowest BMI for males was at UMB (19.2) and for females at UM (17.21). Since age also affects this indicator, adjustments are necessary before making a final conclusion.

Sources
- Data from tests, exams, and questionnaires from all participating subjects in the 2023 National Universiade.
- Data from tests, exams, and questionnaires from all participating subjects in the 2012-2013 National Universiade.
- Technical results protocols of national and international competitions.
- Statistical processing bulletin of the BMI index. 2001. L. Markola.

University of Sports of Tirana
Faculty of Movement Sciences
Institute of Scientific Research in Sports
Work Program for the Study "National University Games - 2016"

Introduction
Based on the sports calendar of the University of Sports of Tirana and the Municipality of Tirana, the national study "Physical Level of Students Participating in the National University Games" will be conducted. During November 2016, students from state and non-state universities in Albania, Kosovo, Macedonia, and Montenegro will be tested.

Objective
The study aims to evaluate the physical (anthropometric) state and BMI index of participants in the national university games, and the competitive potential of athletes for future international Universiades.

Methodology
- **Testing Methods:** Physical (anthropometric) tests, BMI index at the sport and university level.
- **Data Analysis:** Descriptive analysis, using data comparison between athletes and countries.
- **Test Indicators:** Height, body mass, BMI index.

Study Phases
- **Phase 1:** October-November 2016 – Physical testing of students from universities in Tirana, Elbasan, Korça, Shkodra, Durrës, Vlorë, Tetova, Prishtina, and Podgorica.
- **Phase 2:** April-May 2017 – Analysis and publication of the study results.

Budget
- **Test Equipment:** Anthropometric measurement set (stadometer, scale, caliper, tape measure, stopwatch).
- **Dietary expenses:** For travel to Prishtina, Shkodra, Tetova, Podgorica.

Work Team
- Prof. Aida Shehu, Lead Researcher
- Coordinators from Kosovo and Macedonia
- UST students and faculty assistants

Budget Items
As part of the ongoing work and specifically for the completion of the research topic "NATIONAL UNIVERSITY GAMES -", tests will be carried out in November in Prishtina, Shkodra, Tetova, and Podgorica for all participating teams with the following budget items:

Dietary expenses for Prishtina
- 1 person x 2 days for meals and accommodation = 4000 Lek x 2 nights x 2 days = 16,000 Lek.

Dietary expenses for Shkodra
- 1 person x 2 days for meals and accommodation = 3000 Lek x 2 nights x 2 days = 12,000 Lek.

Project Developer
Prof. Asc. Dr. Aida Shehu