# BEHAVIOUR PATTERNS IN LEISURE TIME AND PREFERENCES FOR PHYSICAL ACTIVITIES IN THE FIRST-YEAR FEMALE STUDENTS OF THE PULA HIGH EDUCATION INSTITUTIONS

DESA VRBANAC
College of Applied Sciences
Polytechnic Pula
Croatia

## ABSTRACT

Leisure time behaviour patterns of young women and the place of engagement in physical activities (PA) in it, as well as preferences for them were the aims. The data were collected with anonymous poll among 151 first-year female students and processed by frequency analysis and percentage computation. The findings indicate the young women from Pula mostly do sedentary activities (learning, reading, TV watching, internet browsing). Slightly less than a half of the subjects (73; 48.04%) were engaged in any kind of physical activity, but irregularly and in the amount insufficient to produce any positive effect on their health. These activities include: (running, walking, cycling, roller-blading, aerobics, pilates, fitness, and folklore dancing. Although the students reported to have a relatively large amount of daily leisure time, the main reason for not engaging in exercise was lack of time. However, even the inactive students had certain preferences of would-be PA: they would be regularly engaged in: team sport games (team handball and volleyball), and in running, cycling, swimming, roller-blading, and aerobics. Occasionaly, they would do: volleyball, basketball, skiing, swimming, team handball, pilates, table tennis, hiking, running and cycling.  The study reinforced the need for organized intervention to alter physical-activity-related behavior of young women.

**Keywords:** sedentary lifestyle, behaviour analysis, preferences, physical activities

## INTRODUCTION

There is a plenty of scientific evidence of human physical activity (PA) in the first decade of the 21st century to be at the lowest level ever in the history of human beings (Andrijašević, 2010), and of all areas of human performance to be flooded by the so called sedentary activities jeopardizing seriously psycho-physical health of all people. Young people are no exception. Therefore, a strongly evidenced need is imposed on responsible administrators and professionals to intervene and try to change such behavioural patterns in the young at all levels of schooling. Physical Education (PE) classes, compulsory and facultative,  become ever more important in fulfilling their compensatory role for sedentary lifestyle and in maintaining the balance between the biotic need for moving and sedentary lifestyles. The current PE time allocation (two 45-minute classess of PE per week are mandatory for the firts- and second-year female students; higher-year students have opportunity to be included in the offered typesof PA if they want) is insufficient to realize the set aims of PE classes, primarily regular exercise habit inciting and development and transformation of students' anthropological status. Therefore, a strong need is obvious to introduce changes into PE classes delivery (curriculum) in high, further education level. Namely, the period of high education, both university and vocational one, is the last moment in which unhealthy habits can be transformed and active lifestyle adopted. There is strong scientific evidence that already in early twenties humans do develop risk factors for the onset of vascular sclerosis, as well as of overweight and obesity. It has also been demonstrated that the young, due to hypokinesis, suffer from health conditions recently not imaginagable, from locomotor system disorders (anthropometric, motor, and functional) to serious psychological disorders and conditions, addictions included. Deteriorated health of young women cannot be restored by any drugs prescription since in its background is not a medical but kinesiological issue (Heimer & Rakovac, 2010).

Student population (age ranging from 18 to 25 years) is characterized by the already formed motor knowledge/skills and achievements. However, it does not mean that students do not have need to realize themselves through learning and motor skills' improvements, as well as through sporting and sports recreational activities accomplishments (Andrijašević, Ciliga, & Jurakić, 2009). Yet, the focus of PE classes at this educational level is on the targeted development, or maintenance of human abilities being relevant to health status improvement or preservance.   The purpose is the development of anthropčogical haracteristics that are good health indicators (Findak, Metikoš, & Mraković, 1994), like ptimal body weight, reduced ballast mass, enhanced muscular mass, flexibility, endurance and cardio-respiratory capacity.

The purpose of the study was to establish behaviour patterns in leisure time of young women, students from Pula and to determine preferences, if any, for physical activities and active lifestyle.

## METHODS

On the sample of 151 first-year female students at the Pula high education institutions a specially designed questionnaire was applied in the academic year 2008/2009. The collected data were processed by means of frequency analysis and percentage computation.

## RESULTS AND DISCUSSION

Basic data about the assessed average amount of leisure time per week-day are presented in Tables  and 2.

Table 1 Leisure time amount per week-day (on average)

| N=151 | Number | % |
|---|---|---|
| Up to 1 hour | 3 | 1.99 |
| 1 hour | 6 | 3.97 |
| 2 hours | 20 | 13.25 |
| 3 hours | 55 | 36.42 |
| 4 hours and more | 67 | 44.37 |

From Table 1 it is obvious 44.37% of the questioned students have on average 4 hours and more of leisure time at their disposal daily. If a group of 34.62% students with average 3 hours of daily amount of leisure time is added, then almost 80% first-year female students have 3 hours and more of leisure time per day, which is a considerable amount, sufficient for inclusion of any kind of physical activities (PA) in daily rhythm. However, the Pula students reported quite different behaviour patterns in daily leisure time (Table 2).

Table 2 Structure of daily leisure time of the observed sample bodnog vremena (N=151)

| | Activities | Up to 1h      % | 2h      % | 3h      % | 4h   % | 5h and more   % |
|---|---|---|---|---|---|---|
| 1. | Learning | 54   **35.76** | 62   **41.06** | 26  **17.22** | 7   **4.64** | 1   **0.66** |
| 2. | Reading | 113   **74.83** | 23   **15.23** | 13   **8.61** | 1   **0.66** | 1   **0.66** |
| 3. | TV watching | 37   **24.50** | 48   **37.79** | 52   **34.44** | 4   **7.84** | 1   **0.66** |
| 4. | Coffe-shop visiting | 86   **56.95** | 43   **28.48** | 16   **10.60** | 5   **3.31** | 1   **0.66** |
| 5. | Something else or nothing | 13   **8.61**  sport, drawing, Internet, cooking, house cleaning | 21   **13.95**  sport, striding, folklore dancing | 6   **3.97**  Internet, student job, socializing | 5   **3.31**  going out | 1   **0.66**  going out, sleeping, socializing, student job |

34 students (22,52%)

We can see the predominance of sedentary type activities, like learning, reading, or spending time in coffe-shops. And among other activities, sedentary activities prevailed, like internet browsing drawing, socilizing... Just 34 students (22.52%) reported their engagement inany kind of sports and folklore dancing, and some reported they «stride». Other non-sedentary activies include only household chores (cooking, tidying house up and cleaning). Time invested in sports and sports recreation per day is almost negligible in the investigated sample. More than a half of the subjects is not engaged in any PA (Table 3; Figure 1).

Table 3 The structure of weekly engagement in any kind of PA

| N=73  (48.04%) | Sport and sports recreation | *Up to 1h* | 2h | 3h | 4h | 5h and more |
|---|---|---|---|---|---|---|
| 1. | Number | 46 | 18 | 5 | 2 | 2 |
| 2. | Percentage (%) | 62.91 | 25.17 | 6.62 | 2.65 | 2.65 |

Out of the total of 151 students questionned, 73 or 48.04% are engaged in any kind of PA on a weekly basis. Most students (62.91 %) are engaged in any kind of sports and in sports recreation just up to 1 hour per week (Sic!), and further 25.17 % students are engaged in any kind of sport-related PA up to 2 hours per week. This amount of weekly PA or exercise is absolutely insufficient from the aspect of biotic and health-related needs.
In Table 4 the types of PA are presented preferred by the female students to be done in their leisure time.

Table 4 Physical activities preferred by the active female students per week

| N=73 | Number | % |
|---|---|---|
| **Running** | 18 | 24.66 |
| **Walking** | 13 | 17.81 |
| **Cycling** | 10 | 13.70 |
| **Roler-blading** | 7 | 9.59 |
| **Aerobics** | 7 | 9.59 |
| **Pilates** | 7 | 9.59 |
| **Fitness** | 6 | 8.22 |
| **Dancing** | 5 | 6.85 |

From the data obtained, it is obvious the «physically active» students choose the listed  PA more because of aesthetic reasons than the health-related ones. Namely, they prefer individual, occasional, random and not organized PA (running, walking, cycling, and roller-blading), the nature of engagement in which is not health enhancing. Just a smaller portion of the active subsample is included in the organized exercise routines (aerobics, pilates, fitness, and folklore dancing).
The students (n=78) who do not practice any leisure time PA reported the following reasons for their inactivity: lack of time, they are either not interested or informed, and lack of money (Table 5).

Table 5 Reasons for not doing any kind of leisure-time PA

| N=151 | Number | % |
|---|---|---|
| **Reasons for inactivity** | **78** | **51.96** |
| 1. Lack of time | 58 | 45.28 |
| 2. Not interested | 31 | 24.53 |
| 3. Not informed | 31 | 24.53 |
| 4. Lack of money | 7 | 5.66 |

However, if we consult questionnarie findings displayed in Table 1, we can see that 80.79% students from the sample have a relatively considerable amount of daily leisure time. Therefore, it is feasible to presume that they spent their leisure time not quality enough, that is, that there are hidden causes for avoiding PA in the investigated sample, which should be thoroughly researched.

Namely, if we inspect Table 6, showing data what would be choice of the inactive students if they would decide to engage in leisure-time PA, we can see they are quite well informed about potential physical activities.

Table 6 Preferences for PA types among inactive students

| N=78 | Would be practiced regularly: | Would be practiced ocassionally: |
|---|---|---|
| 1. | running | volleyball |
| 2. | team handball | basketball |
| 3. | volleyball | skiing |
| 4. | aerobics | swimming |
| 5. | cycling | team handball |
| 6. | swimming | pilates |
| 7. | roller-blading | table tennis |
| 8. | / | hiking |
| 9. | / | running |
| 10 | / | cycling |

There are two groups of would-be preferred PA (Table 6). The first group consists of PA the inactive students would be regularly engaged in. These are: team sport games (team handball and volleyball), and a series of activities the students can do individually, like: running, cycling, swimming and roller-blading), or in which they can inlisted on an individual basis (aerobics). The structure of would-be regular activities is very similar to the structure of activities the active students are actually engaged in, with the exception of team sports games. The other group of would-be PA is made of sports the students would occassionally do. These are: volleyball, basketball, skiing (expected due to the seasonal nature of the sport – winter sport), swimming (also expected due to the seasonal nature of the activity – summer activity), team handball, pilates, table tennis, hiking, running and cycling.

Information on the preferred types of PA, obtained from both the active and inactive female students, is a good orientation indicator to high education Physical Education (PE) teachers, to professionals and policy-makers responsible for the design of PE curriculum, as well as to sports recreation organizers and managers at all organizational levels – from the local community to the state level.

**CONCLUSION**

The findings are alarming, suggesting a clear need for intervention in behaviour of young women. The intervention must incluede a wide, versatile offer of organized PA types, exercise programmes and recreational sports, to the student population. Physical education classes is almost an exclusive opportunity for most of the female students to do any organized, programmed PA. However, two PE classes per week are far too insufficient to produce any effect on health preservation and/or disease prevention.

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