#### 1. What is Sedentary?

A sedentary lifestyle is expressed as having a limited range of physical activities or even none.

People who live sedentary lives tend to move at the minimum level and try to avoid physical activities as much as possible.

Some people are forced to live such and some people choose to.

Sedentary living is considered to be an unhealthy lifestyle which may end up with the person having a variety of physical and mental problems.

The risk of having such problems increases for the people who spend more than 5 hours without moving per day.

The risk of having chronic diseases increases as the amount of movement of the person decreases. The most common diseases that may occur are listed below.

- a. Cardiovascular Diseases
- b. Rectal Cancer
- c. Anxiety
- d. Depression
- e. High Blood Pressure
- f. Obesity
- g. Lower back pain and slipped disc

#### 2. Materials and Methods

Perceived Stress Scale (Bilge, Öğce, Genç and Oran, 2007) was used as the research method for collecting data.

Each individual involved in the survey was given a personal information form.

#### 3. Research Zone

There were 60 participant in the research process. Their ages were in between 18 and 41.

30 of the 60 participants were Brazilian Jiu - Jitsu athletes from Balaban Jiu Jitsu Team, training at CrossFit Balaban and the other 30 were sedentary people who lived in Kadikoy, Istanbul.

Each group consists of 10 women and 20 men participants.

#### 4. Perceived Stress Scale

The datas involved in the Perceived Stress Scale were collected anonimously. The BJJ athletes were symbolised as X and the sedentary participants were symbolised as Y.

The participants were asked about the possible situations and feelings they may have had them within the last month.

The average values were obtained for each question and the collected data was analyzed on the computer and interpreted afterwards.

#### 5. Personal Information Form

The form contains the information about the participants' sex, education levels, ages and information on how long they have been training and how often they train.

For sedentary people, it only contains the information about the sex, education levels and ages.

#### 6. Datas

The values given below are the average values of the answers given by the participants of this research.

According to the Perceived Stress Scale, questions no. 1, 2, 3, 7 and 8 were evaluated as the chosen value and the questions no. 4, 5 and 6 were evaluated as the reversal of the chosen values.

As the result of this test, the participant receives a score in between 0 and 32, according to the evaluation system of the Perceived Stress Scale.

### 7. Tables

**Table 1.** Number of participants in the research.

	Athlete	Sedentary
Men	20	20
Women	10	10
Total	30	30

**Table 2. Age range of athletes** participated in the research.

	18-21	22-30	31-40	41 or Older.
Men	2	11	6	1
Women	0	6	4	0
Total	2	17	10	1

**Table 3.** Education status of the athletes participated in the research.

	Highschool	University	Master's	Doctorate
			Degree	
Men	1	16	2	1
Women	1	8	1	0
Total	2	24	3	1

**Table 4.** The time period of training Brazilian Jiu Jitsu by the athletes participated in the research,

	1 Year or less.	1-2 Years	2-3 Years	3 Years or more.
Men	2	5	2	11
Women	1	4	3	2
Total	3	9	5	13

**Table 5.** The frequency of training of the athletes involved in the survey.

	2 or 3 times in a	3 or 4 times in a	5 times in a week or
	week.	week.	more.
Men	8	7	5
Women	6	2	2
Total	14	9	7

**Table 6.** Age range of sedentary people.

	18-21	22-30	31-41	41 or Older.
Men	3	15	2	0
Women	1	6	1	2
Total	4	21	3	2

**Table 7.** Education status of the athletes participated in the research.

	Highschool	University	Master's Degree	Doctorate
Men	3	16	1	0
Women	3	7	0	0
Total	6	23	1	0

**Table 8.** Average scores of the responses given by the Sedantary people and the athletes.

#	Athlete	Sedentary
1	1,46	2,26
2	1,1	1,8
3	1,73	3,1
4	0,7	1,53
5	1,33	1,93
6	1,26	2,16
7	1,8	2,66
8	1,36	1,8

### A. Responses to Questions by Athletes, participated in the Research.

#### 1. How often haven you been upset because of something that happened unexpectedly?

	Never (0)	Almost Never (1)	Sometimes (2)	Fairly Often (3)	Very Often (4)
Men	7	4	4	3	2
Women	0	7	2	0	1
Total	7	11	6	3	3

Average: 1,46

# 2. How often have you felt that you were unable to control the important things in you life ?

	Never (0)	Almost	Sometimes	Fairly Often	Very Often
		Never (1)	(2)	(3)	(4)
Men	10	5	4	0	1
Women	1	3	5	1	0
Total	11	8	9	1	1

Average: 1,1

### 3. How often have you felt nervous or stressed?

	Never (0)	Almost	Sometimes	Fairly	Very
		Never (1)	(2)	Often (3)	Often (4)
Men	7	4	6	1	2
Women	0	0	8	1	1
Total	7	4	14	2	3

Average: 1,73

### 4. How often have you felt confident about you abilty to handle your personal problems?

	Never (0)	Almost	Sometimes	Fairly Often	Very Often
		Never (1)	(2)	(3)	(4)
Men	0	2	0	5	13
Women	0	0	1	8	1
Total	0	2	1	13	14

Average: 0,7 \* In this question the score is calculated by taking the opposite score of the selected score

### 5. How often have you felt that things were going your way?

	Never (0)	Almost	Sometimes	Fairly Often	Very Often
		Never (1)	(2)	(3)	(4)
Men	0	1	5	10	4
Women	0	2	3	5	0
Total	0	3	8	15	4

Average: 1,33 \* In this question the score is calculated by taking the opposite score of the selected score

### 6. How often have you been able to control irritations in your life?

	Never (0)	Almost	Sometimes	Fairly Often	Very Often
		Never (1)	(2)	(3)	(4)
Men	0	1	8	6	5
Women	0	0	5	3	2
Total	0	1	13	9	7

Average: 1,26 \* In this question the score is calculated by taking the opposite score of the selected score

# 7. How often have you been angered because of the things that were outside of your control ?

	Never (0)	Almost	Sometimes	Fairly Often	Very Often
		Never (1)	(2)	(3)	(4)
Men	3	5	9	2	1
Women	1	2	2	5	0
Total	4	7	11	7	1

Average: 1,8

# 8. How often have you felt difficulties were pilling up so high that you could not overcome them ?

	Never (0)	Almost	Sometimes	Fairly Often	Very Often
		Never (1)	(2)	(3)	(4)
Men	4	10	4	1	1
Women	2	1	6	1	0
Total	6	11	10	2	1

Average: 1,36

# B. Responses to Questions by Sedentary people, participated in the research.

# 1. How often haven you been upset because of something that happened unexpectedly?

	Never (0)	Almost	Sometimes	Fairly Often	Very Often
		Never (1)	(2)	(3)	(4)
Men	0	5	5	6	4
Women	1	1	5	2	1
Total	1	6	10	8	5

Average: 2,26

# 2. How often have you felt that you were unable to control the important things in you life?

	Never (0)	Almost	Sometimes	Fairly Often	Very Often
		Never (1)	(2)	(3)	(4)
Men	5	2	4	6	3
Women	2	3	4	1	0
Total	7	5	8	7	3

Average: 1,8

### 3. How often have you felt nervous or stressed?

	Never (0)	Almost Never (1)	Sometimes (2)	Fairly Often (3)	Very Often (4)
Men	0	1	2	9	8
Women	0	2	1	3	4
Total	0	3	3	12	12

Average: 3,1

### 4. How often have you felt confident about you abilty to handle your personal problems?

	Never (0)	Almost	Sometimes	Fairly Often	Very Often
		Never (1)	(2)	(3)	(4)
Men	0	0	13	4	3
Women	0	0	3	4	3
Total	0	0	16	8	6

Average: 1,53 \* In this question the score is calculated by taking the opposite score of the selected score

### 5. How often have you felt that things were going your way?

	Never (0)	Almost	Sometimes	Fairly	Very Often
		Never (1)	(2)	Often(3)	(4)
Men	1	1	17	1	0
Women	0	1	4	5	0
Total	1	2	21	6	0

Average: 1,93 \* In this question the score is calculated by taking the opposite score of the selected score

### 6. How often have you been able to control irritations in your life?

	Never (0)	Almost	Sometimes	Fairly Often	Very Often
		Never (1)	(2)	(3)	(4)
Men	5	6	4	1	4
Women	0	2	5	2	1
Total	5	8	9	3	5

Average: 2,16 \* In this question the score is calculated by taking the opposite score of the selected score

## 7. How often have you been angered because of the things that were outside of your control ?

	Never (0)	Almost	Sometimes	Fairly Often	Very Often
		Never (1)	(2)	(3)	(4)
Men	1	2	5	0	12
Women	1	0	7	2	0
Total	2	2	12	2	12

Average: 2,66

# 8. How often have you felt difficulties were pilling up so high that you could not overcome them ?

	Never (0)	Almost	Sometimes	Fairly Often	Very Often
		Never (1)	(2)	(3)	(4)
Men	4	4	9	1	2
Women	2	2	3	3	0
Total	6	6	12	4	2

Average: 1,8

#### **Analyzing the Collected Data**

# 1. How often haven you been upset because of something that happened unexpectedly?

During the training sessions of Brazilian Jiu - Jitsu, the athletes are trained to respond to forces in the shortest amount of time. By training to take someone down,

tap someone out or defend against the fast attacks of the opponents, athletes are considered to develop certain abilities to control sudden emerging situations.

As a result, since the athletes constantly find themselves in the "Fight, Flight or Freeze" situations, the athletes are more likely to take control of such situations.

# 2. How often have you felt that you were unable to control the important things in you life?

Brazilian Jiu Jitsu athletes are tend to control the situations better compared to sedentary people, due to the abilities they gain during the training sessions.

This results as having more stable pyschological and physical conditions in their daily routines.

#### 3. How often have you felt nervous or stressed?

Each athlete shows a lot of effort during the training sessions of Brazilian Jiu - Jitsu. World Health Organization considers sports as a precaution for "protecting

pyschological health". Being involved in sports prevents stress formation as well as reducing the stress levels of the athletes. The efforts shown reduce the symptoms of

the "next day syndromes". Constant training sessions enable the production of seratonin, known as the hormone for being happy while increasing the motivation of the individual

that enhances the quality of living.

## 4. How often have you felt confident about you abilty to handle your personal problems?

Brazilian Jiu - Jitsu is an individual sport and the participant is left alone to perform during the traning sessions and the competitions. The individual has to

survive the situations where they are under physical and mental stresses such as being pinned down or being under the threat of tapping out or losing in the competition

due to points. Such situations can be handled by only the athlete. This results as the enhancement of the self confidence levels.

#### 5. How often have you felt that things were going your way?

This question is very personal but the average values of the results given to this question were much better for the athletes compared to the sedentary individuals.

The reason for this is believed to be due to the disciplined and organized lifestyle of the athletes. The athletes are more likely to stay away from the physcological and

physical results of stress, alcohol intake, insomnia and other various possible unhealthy conditions.

#### 6. How often have you been able to control irritations in your life?

Brazilian Jiu - Jitsu athletes have to control their emotions and thoughts during the physical struggles they are going through. If they are not able to control such emotions,

they are more likely to fail. The aggressive moves such as taking someone down, applying a high level of pressure on them or choking them out result as the need of

controlling the anger that athletes may have produced. If the individual fails to control such anger, they appear to be in uncomfortable situations afterwards. Therefore,

athletes are more trained to control their feelings compared to the sedentary people and they appear to be more comfortable in such situations in life as well.

## 7. How often have you been angered because of the things that were outside of your control?

This question was asked to check and confirm the reliability of the answers given before. The answers given to this question are expected to be in corrolation

with the answers of the 2nd and 6th questions. The analyse of this question is mentioned in the details of the 2nd and 6th questions.

# 8. How often have you felt difficulties were pilling up so high that you could not overcome them?

Brazilian Jiu - Jitsu is a martial art and it requires the athletes to be able to control the situations and stay cool under pressure.

Otherwise, as mentioned in the 6th question, the athletes have to face the negative effects of stress and can be demotivated to train.

The athletes are expected to cope with their daily problems better compared to the sedentary individuals since they have encountered such

difficult physical conditions much more. The athletes can reflect their experiences on the mat to the daily routines they are going through. Thus, they

are much more likely to handle the stress of daily routines better.

#### **Sources**

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