

SELF-ASSESSMENT OF MENTAL AND PHYSICAL HEALTH AS THE EFFECT OF THREE MONTHS OF RECREATIONAL TREATMENT OF WOMEN

Nevres Muminović¹, Osman Lačić², Jasmin Bilalić², Tarik Huremović², Mensur Halilović³

¹ *An independent researcher, Tuzla, Bosnia and Herzegovina*

² *Faculty of Physical Education and Sports, University of Tuzla, Bosnia and Herzegovina*

³ *An independent researcher, Dobo, Bosnia and Herzegovina*

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Abstract

The primary objective of this study is to analyze the self-assessment of the mental and physical health of young women from the effects of programmed recreational activities in a three-month period. The sample is composed of 35 women (20 - 40 years old). For a sample of variables in the assessment of mental and physical health, standardized instruments were used: THE HAD scale - Hospital Anxiety and Depression Scale (for mental health assessment) and EQ thermometer (for physical health assessment)

The results of the overall condition of all participants before the start of the experimental procedure, 24 participants had no symptoms of depression, 8 participants had a borderline condition, and 3 participants with depressive disorder. After three months of recreational treatment, 30 of the participants have no symptoms of depression, 3 participants have borderline condition and 2 participants with depressive disorder.

When it comes to the self-assessment of anxiety in the initial state, it was noted that 26 participants of the experiment had no signs of anxiety, 6 participants had a borderline state of anxiety, while 3 participants had anxiety disorders, of which 2 participants slightly above the limit state and one participant with a particularly high number of points indicating a more severe state of anxiety. At the end of the experiment, 31 participants had no signs of anxiety, 4 had a borderline state and 1 person with a severe anxiety condition.

Before the start of recreational activities, one participant rated their physical health as extremely poor and 3 people rated their health as poor. The largest number of participants before the experiment, 16 of them, rated their physical health slightly above average, 10 women rated their physical health as excellent and 5 women rated themselves the best imaginable physical health. After the experiment, only 4 participants estimated lower and average self-health, above average 6, 20 women claimed to have excellent health and 5 participants in the experiment claimed to be in the best physical health imaginable.

Keywords: Women, recreation, self-assessment, depression, anxiety, physical health.

INTRODUCTION

In recent years, more emphasis was put into the research of health of the population. Health has become the main aspiration of all human activities and the main goal for people. The beginning of the Industrial Revolution brought a multitude of resources such as food and medicine, hygiene habits gained importance, and medical services were greatly improved, leading to an increase in living standards and longer life expectancy. Health care then became a trend that continues even today. In the past, the state of health of a particular population was most often concluded on the basis of objective indicators, such as mortality and morbidity. Self-assessment of health was recognized in 1948, when the World Health Organization (WHO) published an expanded definition of health, which in addition to physical health, included the mental and social

components, and physical and mental health were integrated separately.

Physical inactivity is one of the leading causes of disease and in the decrease in quality of life, and with further inactivity, these risks continue to grow. Problems caused by a decrease in physical activity are strongly reflected in the mental health of modern man, which impair to a greater or lesser extent, depending on the characteristics of personality and social environment (Alderman and Landers, 2004). More contemporary research in this area, has yielded encouraging results, because there are clear facts that speak in favor of the positive impact of physical activity, both on physical and mental health. For a long time, it has been known that people who have heightened tension, feelings of aggression or anger, that they resolve this issue with activities that lead to increase in muscle activity. Recent research in this area points to the fact that milder forms of certain mental disorders, such as anxiety, depression and

stress can be greatly reduced during regular recreational activities.

RESEARCH METHODOLOGY

Sample of respondents

The sample for the experiment consisted of 35 women in the age range of 20-40 years.

Sample variables

For a sample of variables in the assessment of mental and physical health, standardized instruments were used, namely:

- **HAD scale** - *Hospital Anxiety and Depression Scale*

HAD scale is a self-assessment scale used as a screening method to detect symptoms and assess the degree of depression and anxiety in the general population. The test contains 14 questions from which 7 are in relation to depression, and 7 in relation to anxiety. The answers are scored on four levels from 0 to 3 so the results can vary from 0 to 21 for depression and also for anxiety. Subjects with a score of 0-7 are not depressed/anxious, 8-10 indicate a borderline state, and 11-21 represent depression or anxiety.

- **EQ thermometer**

The **EQ thermometer** is an integral part of the Euro-Qol standardized European questionnaire of self-assessment of physical health. There are two parts of the Euro-Qol: the **EQ-5D** and the **EQ thermometer**. An **EQ thermometer** is a vertical visual analog scale of 20 cm with a range of 0 to 100 numerical values, where 0 is the worst and 100 is the best imaginable physical health on which respondents respectively evaluate themselves.

Research description

This study included 35 women aged 20 to 40. The experiment lasted 3 months. Twice a week, the participants conducted programmed recreational activities for 1 hour with a professional activity manager. Before the start of the experiment, as well as after 3 months, data collection was carried out through the aforementioned instruments. The initial condition was related to self-assessment of mental and physical health in the last year or two, and the final condition to self-assessment of current mental and physical health after three

months of recreational activities. In this study, we reduced the EQ thermometer scale, for practical reasons, in a ratio of 1:10 so that 0 is the worst and 10 is the best imaginable physical health, and because of these changes, the reliability of the scale is not diminished.

RESULTS AND DISCUSSION

Self-assessment of depression

In the initial pre-treatment condition (Table 1) we see that 24 participants have no symptoms of depression (0-7 points), 8 participants have a borderline state of depression (8-10 points) and 3 participants suffer from depression (11-21 points). In the final state, after a three-month experiment, (Table 2) 30 participants had no symptoms of depression, 3 participants had a borderline condition and 2 participants suffered from depression.

We can conclude that the three-month recreational program positively influenced the state of depression in women in the experiment. The program had a special impact in women with a borderline state of depression, where in 8 participants in the initial state, as many as 5 of them, after the experiment, disappeared symptoms indicating a state of depression. Also out of 3 people with a more severe disorder, in the initial state, one person after the recreational program no longer had problems with depression, while the other two still have a lighter state of depression after the experiment, which is reflected in the total sum of points that is at the lower limit of the corresponding scale.

Given the worrying predictions that in the future the number of depressed people will constantly increase, good prevention is needed to reduce the number of people with depressive symptoms. One of the ways of prevention, as we see, is physical activity. As other studies have confirmed, physical exercise improves the transmission of neurotransmitters that have a positive effect on the mood. In people who have depressive symptoms, the secretion of serotonin and dopamine is reduced, and therefore physical activity is a natural way to stimulate their secretion (Begić, 2011).

Table 1. Results for depression - initial condition

DEP-I

Points	Frequency	Percent	Valid Percent	Cumulative Percent
0	2	5.7	5.7	5.7
2	4	11.4	11.4	17.1
3	4	11.4	11.4	28.6
Valid 4	3	8.6	8.6	37.1
5	5	14.3	14.3	51.4
6	4	11.4	11.4	62.9
7	2	5.7	5.7	68.6
Valid 8	2	5.7	5.7	74.3
9	3	8.6	8.6	82.9
10	3	8.6	8.6	91.4
Valid 13	2	5.7	5.7	97.1
14	1	2.9	2.9	100.0
Total	35	100.0	100.0	

Table 2. Results for depression - the final condition

DEP-F

Points	Frequency	Percent	Valid Percent	Cumulative Percent
0	1	2.9	2.9	2.9
1	4	11.4	11.4	14.3
2	2	5.7	5.7	20.0
Valid 3	2	5.7	5.7	25.7
4	9	25.7	25.7	51.4
5	5	14.3	14.3	65.7
6	3	8.6	8.6	74.3
7	4	11.4	11.4	85.7
Valid 8	2	5.7	5.7	91.4
9	1	2.9	2.9	94.3
Valid 11	1	2.9	2.9	97.1
13	1	2.9	2.9	100.0
Total	35	100.0	100.0	

Also, joining into groups allows people suffering from depression to be included in society, which creates positive feelings that are exactly the opposite of the symptoms of depression. Cox (2005) states that aerobic and anaerobic physical activity have a positive effect on reducing depressive symptoms. North and The S. (2009; according to Žigman and Ružić, 2008) however, they state that aerobic exercise is better than anaerobic exercise in reducing symptoms of depression, but emphasize the importance of extensibility and intensity of physical exercise. For optimal results, perseverance in physical activities of medium to high intensity is essential.

Self-assessment of anxiety

By examining the obtained indicators of self-assessment of anxiety in the initial state (Table 3), it is evident that 26 participants of the experiment have no signs of anxiety, 6 participants have a borderline state of anxiety while 3 participants suffer from anxiety, of which 2 participants slightly above the border line state and one participant with a particularly high negative number of points, which is 16.

In the final state (Table 4) 31 participants after the experiment have no signs of anxiety, 4 have a borderline state and 1 person with anxiety disorder.

After a three-month experimental recreational treatment, the positive impact of women's recreational activities on anxiety disorders is evident. Out of 6 participants with borderline anxiety, 2 people no longer have any symptoms, and the program was particularly important in two women who suffered from anxiety, but at the lowest degree of the existing scale, and who no longer have this condition. The program did not affect the person with severe symptoms of anxiety who had a significant degree of anxiety expressed, with 16 unwanted points before and after the three-month recreational program.

In people with anxiety symptoms, it is necessary to pay attention to the attitude towards the social environment. Namely, if a person has social anxiety, insisting to join a group that engages in physical activity could only aggravate the symptoms, so it is important for each individual to determine the right environment. It also requires a certain level of excitement in order for a person to perform physical exercise as well as possible. Hanin (1986; according to Cox, 2005) proposed a theory of the zone of optimal functioning. According to this theory, the moderate level of anxiety that an individual feels while performing

an action maximizes performance and results in the best achievement. However, the level of optimal anxiety is not the same for everyone. That level of incitement that gives the best results for another person for someone can mean pronounced stress. Finding a zone of optimal functioning can lead to achieving the desired goal, and thus to increasing self-efficacy and self-confidence which are characteristics of good mood and mental health (Cox, 2005).

Self-assessment of physical health

As stated above, for practical reasons, a self-assessment was carried out here on a scale of 0-10, where absolute values are equalized so that there are no aberrations in the estimate.

In the initial self-assessment of physical health (Table 5), we see that one participant rated their physical health as extremely poor (score 1) and 3 people as poorer health (grades 3 and 4). The largest number of participants before the experiment, 16 of them rated their physical health slightly above the average with grades (5, 6 and 7), excellent physical health rated 10 women with grades of 8 and 9 and 5 women rated for themselves the best imaginable physical health, as excellent (grade 10).

Observing the values of self-assessment of physical health in the final state (Table 6) weaker and average self-health (grades 3 to 6) was estimated by only 4 participants, above average with a score of 7 of them 6, 20 women found that they had excellent health (grades 8 and 9) and 5 participants of the experiment as the best imaginable physical health (grade 10).

In comparison, the results of self-assessment of physical health before and after three months of treatment, the positive effects of the experiment are obvious. As many as 25 women, out of 35, after three months of recreational program rated their physical health as excellent and the best imaginable condition.

This is another proof that adequate physical exercise is an effective means of improving and protecting health. Physical activity contributes to the improvement of health status. Increased energy expenditure through physical activity and exercise results in a reduction in the risk of many diseases. Health is strengthened and improved through regular physical activity. The positive impact of the sports and recreational program on the health of the practitioner depends on the time spent engaging in sports activity. If an individual exercises a little, the results will not be missing, but they will be small (Warburton et al., 1999),

and with the increase in the amount of time devoted to physical exercise, its positive effects will also increase. This applies when the intensity is appropriate for the human body, while

inappropriate exercise can endanger human health.

Table 3. Results for anxiety - initial condition

ANX-I				
Points	Frequency	Percent	Valid Percent	Cumulative Percent
0	1	2.9	2.9	2.9
1	3	8.6	8.6	11.4
2	3	8.6	8.6	20.0
Valid 3	2	5.7	5.7	25.7
4	6	17.1	17.1	42.9
5	4	11.4	11.4	54.3
6	5	14.3	14.3	68.6
7	2	5.7	5.7	74.3
Valid 8	3	8.6	8.6	82.9
9	1	2.9	2.9	85.7
10	2	5.7	5.7	91.4
Valid 11	1	2.9	2.9	94.3
12	1	2.9	2.9	97.1
16	1	2.9	2.9	100.0
Total	35	100.0	100.0	

Table 4. Results for anxiety - final condition

ANX-F				
Points	Frequency	Percent	Valid Percent	Cumulative Percent
0	3	8.6	8.6	8.6
1	1	2.9	2.9	11.4
2	2	5.7	5.7	17.1
Valid 3	4	11.4	11.4	28.6
4	6	17.1	17.1	45.7
5	8	22.9	22.9	68.6
6	1	2.9	2.9	71.4
7	5	14.3	14.3	85.7
Valid 8	3	8.6	8.6	94.3
10	1	2.9	2.9	97.1
Valid 16	1	2.9	2.9	100.0
Total	35	100.0	100.0	

Table 5. Results for physical health - initial condition

SPH-I

Points	Frequency	Percent	Valid Percent	Cumulative Percent
1	1	2.9	2.9	2.9
3	1	2.9	2.9	5.7
4	2	5.7	5.7	11.4
5	2	5.7	5.7	17.1
Valid 6	6	17.1	17.1	34.3
7	8	22.9	22.9	57.1
8	5	14.3	14.3	71.4
9	5	14.3	14.3	85.7
10	5	14.3	14.3	100.0
Total	35	100.0	100.0	

Table 6. Frequencies for physical health - final state

SPH-F

Points	Frequency	Percent	Valid Percent	Cumulative Percent
3	1	2.9	2.9	2.9
4	1	2.9	2.9	5.7
5	1	2.9	2.9	8.6
Valid 6	1	2.9	2.9	11.4
7	6	17.1	17.1	28.6
8	9	25.7	25.7	54.3
9	11	31.4	31.4	85.7
10	5	14.3	14.3	100.0
Total	35	100.0	100.0	

CONCLUSION

There are two main concepts of health: mental and physical. Mental health is a state of well-being in which an individual realizes his abilities, can cope with stressful life situations, work productively and is able to contribute to the community in which he lives (WHO, 2010). Mental health is not just the absence of mental illness. Mental health is a state of generally good emotional and social adaptation, and a mentally healthy person is satisfied, happy to live and has the feeling that he is successfully fulfilling his potential (Petz, 1992). Physical health refers to general physical health that includes the physiological and physical state of the body (Ware et al., 1981), and is usually expressed in terms of

the existence or absence of illness, injury, or limitation. Based on self-assessment of the existence of physical symptoms, one tries to find out to what extent someone feels health problems or complains about impaired physical functioning. Although mental and physical health are two distinct concepts in a tight relationship, the condition of one often affects the state of the other (Ware et al., 1981). From the above, it is evident that a person's health is closely related to his physical activity. Failure to do the same leads to the deterioration of the body, both on the physical and psychological level. With this in mind, physical activity is actually a civilizational need of modern man, and engaging in physical activity, in addition to this evidence, has a whole range of positive effects on human health.

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Correspondence to:

Osman Lačić

Faculty of physical education and sport, Tuzla University

e-mail: osman.lacic@untz.ba