The effect of psycho-physiological sports proposed in terms of the hormone endorphins serotonin and their relative results on mental fitness in the aged

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Abstract
The objective of the research is to become aware of the effect of (psycho-physiological) exercises proposed in phrases of the hormone endorphins serotonin and their relative outcomes  on intellectual health within the aged, the pattern consisted of 20 elderly human beings, the researchers used the experimental technique, this system length consisted of (12) weeks and the rate of (eight) schooling units in line with week with two gadgets each day (morning and night), the studies reached the effects that the exercises prepared with the aid of the researchers have a clear effect on elevating the ratio of the hormones endorphins and serotonin in the blood, and it affected morally the intellectual fitness of the aged because of the relative rise of the hormones endorphins and serotonin.

Keywords: mental fitness; hormone endorphins serotonin; psycho-physiological

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Introduction
The sector has witnessed at present splendid progress within the social, educational and mental fields with the first-rate hobby in worrying for the aged because of the need imposed with the aid of the nature of the modern-day technology, that's characterized by means of the high stage of a while due to health progress, which brought about its distinguished by the phenomenon of growing this class some of the population and the houses for the care of the elderly and house coverage similarly to provides all aspects of social and fitness care that offers them with psychological balance, which helped them in social conditioning and supplied them with consolation and reassurance within the rest in their lives

So the countries inside the latest duration went to introduce the sports side to help the aged cast off the matter Get physical with the aid of acting their very own exercises significantly and aiming to raise the level in their simple motor capabilities along with (getting up, sitting, on foot and lifting lightweight matters) and retaining functional gadget and retaining intellectual health together with accreditation, self-confidence, optimism and self-pride, and these physical games encompass a group of Physiological (breathing and leisure) sporting events that serve the intellectual health of the elderly and help them take away emotions, depression and shortage of sleep due to their direct impact on some hormones (endorphins and serotonin) which can be related to happiness, psychological tension and community war of words in a manner positive and diminishing the pessimistic outlook in addition to decreasing the level of forgetfulness, fatigue and fatigue, and the importance of studies lies inside the impact of the proposed psychological physiological sporting events in phrases of the hormone endorphins serotonin within the elderly

Research problem
The surprising changes that arise inside the elderly after referral to retirement as a result of a sense of vacancy and isolation and the huge variety of issues resulting from physiological and biological modifications, consisting of cellular dystrophy, a lack of mental skills, negative reminiscence, arteriosclerosis and accelerated sugar, similarly to mental problems and self-agitation, consisting of intransigence, dissociation, unhappiness and sorrow And that results in fatigue, melancholy, loss of sleep and permanent reduce the unknown.
Therefore, the researchers wanted to go into the mental and physiological hassle and attempt to stimulate some hormones (endorphins and serotonin) that have an instantaneous impact in elevating morale and insistence on existence and reduce mental anxiety and excite happiness in the elderly, thru a fixed of breathing sporting activities that boost the work useful gadgets in trendy and the frightened gadget especially, as they boom the price of oxygen production and paintings memory and decrease forgetfulness, further to a group of recreational sports that work to stimulate hormones working on human happiness and reduce strain and mental emotions affecting a For the intellectual fitness of the aged.

The research objectives are: (1) Getting ready psycho-physiological physical activities proposed in phrases of the hormones endorphins and serotonin inside the aged. (2) Knowing the quantity of the effects of exercises in raising the level of the hormones endorphins and serotonin inside the blood for the aged. (3) Discover the relative effect of endorphins and serotonin on the mental health of the elderly.

**Studies fields**

Human subject: The sample consisted of the aged in the nursing home.  
Spatial: nursing domestic inside the Qadisiyah Governorate.

**Research methodology and field procedures**

Researchers used the experimental method in a single group method to achieve the research goals and solve its problem. The research community is the various aged residents in the nursing home for the elderly governorate of Qadisiyah for the 12 months (2019) and the range is (30) aged and aged ladies. A percentage of (66%) of the indigenous network changed into, and homogeneity was performed among sample individuals as shown in table (1).

**Table 1:** Shows the homogeneity of the individuals in the research sample.

<table>
<thead>
<tr>
<th>S</th>
<th>Variables</th>
<th>Units</th>
<th>Mean</th>
<th>SD</th>
<th>Skewness</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-</td>
<td>Length</td>
<td>cm</td>
<td>166</td>
<td>5.61</td>
<td>3.37</td>
</tr>
<tr>
<td>2-</td>
<td>Weight</td>
<td>Kg</td>
<td>87.6</td>
<td>3.55</td>
<td>4.02</td>
</tr>
<tr>
<td>3-</td>
<td>Age</td>
<td>Year</td>
<td>82</td>
<td>4.21</td>
<td>5.13</td>
</tr>
<tr>
<td>4-</td>
<td>Endorphins</td>
<td>Ml / moll</td>
<td>460.73</td>
<td>89.21</td>
<td>19.36</td>
</tr>
<tr>
<td>5-</td>
<td>Serotonin</td>
<td>Ml / moll</td>
<td>67.11</td>
<td>2.30</td>
<td>3.42</td>
</tr>
<tr>
<td>6-</td>
<td>Psychological health</td>
<td>Degree</td>
<td></td>
<td>40.88</td>
<td>3.51</td>
</tr>
</tbody>
</table>

**Tools for collecting information, means and equipment used**

It was done through information-gathering tools, namely: Arab and foreign sources, specialized experts, observation, and medical staff. The devices, tools, and devices were each of Mental Health Scale, (5) ml medical injection, Aseptic material, Medical cotton, Coolbox to transfer blood samples to the laboratory, and chemicals to detect endorphins and serotonin concentrations. The test used in the research had include: Mental Health Scale for the Elderly (1), the objective of the test: To measure the mental health of the elderly. Androgen test, the aim of the selection: measure the ratio of endorphin hormone in the blood. Serotonin test, the goal of the selection: To measure the serotonin level in the blood.

The exploratory experiment becomes finished via the researchers on (2/nine/2019) within the aged care home in Al-Qadisiyah Governorate and by way of 3 elderly people from within the studies sample and they were selected in a simple randomized way, so that the researchers realize the limitations and problems that could arise whilst implementing the primary experiment.

**Main experiment procedures**

The pre-tests were conducted by the researcher and the medical and assistant team on (4th of Sep. 2019) at ten o’clock from inside the elderly care home, Al-Qadisiyah Governorate and on the research sample where the tests were represented. First: Serotonin test. Second: test for the hormone endorphins. Third: Measuring the mental health of the elderly if its axes: respecting the laws and traditions of society with (24 paragraphs), self-reliance with (24 paragraphs), optimism with (24 paragraphs), self-confidence with (24 paragraphs), extending with (24 paragraphs).
The researchers prepared a hard and fast of physical games number (32) mental physiological exercising to raise the proportion of hormones endorphin and serotonin inside the aged and applied to the studies sample by means of researchers, where it become followed inside the improvement of sporting events on clinical resources and expert opinion in the utility of sports and by using (8) gadgets (training) Weekly divided into four days and everyday gadgets (morning and evening), and each unit contains (four) physical games and a time of (12) minutes and over (12) weeks with the use of the ripple principle (1-2) while implemented and be the start of the carried out section of the training unit fitness.

After completing the curriculum, the exercises prepared by the researchers, the post-exams were conducted on (29th of Nov.2019) at ten o'clock from inside the nursing home, Al-QadisiyahGovernorate and on the research sample and the researchers were keen to provide the same procedures and conditions that were surrounding in Pretests.

Statistical means
The researcher used statistical means according to the ready-made statistical package (SPSS) to address the results obtained from the main experiment.

Results and discussions
A display showing the mean, the standard deviations, the calculated value (t) and the effect size between the pre and posttests of the search variables.

Table 2: Show the description of the results of comparison of the two measurements (before workouts and after workouts) shows the research sample.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Tests</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>(t) calculated</th>
<th>df</th>
<th>(t) tabulate d</th>
<th>Type of significant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Endorphins</td>
<td>Before exercise</td>
<td>20</td>
<td>460.73</td>
<td>89.21</td>
<td>2.691</td>
<td>19</td>
<td>2.093</td>
<td>Sig.</td>
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<tr>
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<td>After exercise</td>
<td>20</td>
<td>622.34</td>
<td>67.72</td>
<td>2.30</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Psychological Health</td>
<td>Before exercise</td>
<td>20</td>
<td>67.11</td>
<td>2.30</td>
<td>3.824</td>
<td>19</td>
<td></td>
<td>Sig.</td>
</tr>
<tr>
<td>Endorphins</td>
<td>After exercise</td>
<td>20</td>
<td>98.74</td>
<td>5.62</td>
<td>3.05</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Serotonin</td>
<td>Before exercise</td>
<td>20</td>
<td>40.88</td>
<td>3.51</td>
<td>5.63</td>
<td>19</td>
<td></td>
<td>S</td>
</tr>
<tr>
<td>Serotonin</td>
<td>After exercise</td>
<td>20</td>
<td>77.94</td>
<td>3.00</td>
<td>3.00</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table (2) indicates the presence of considerable differences among the pre- and submit-stress tests of the studies pattern for the endorphin variable, because of the nature of the athletic hobby carried out.

As physical pastime stimulates the apprehensive machine to stimulate underneath the hypothalamus for the secretion of the hormone beta-endorphin, the purpose of this is to give the frame a more and higher possibility to workout physical activity, and to maintain for the longest feasible period as the concentration of the hormone beta-endorphin will increase at some point of mild-depth physical effort, because it will increase joy and satisfaction And relieve the ache attributable to bodily effort, and consequently it is called the hormone of happiness, as it is relaxing, therefore, the boom is due to the nature of physical pastime practiced through the aged from moves characterized via ease and moderation in utility, and for this, the frame's reaction to an increase in stimulating the pituitary. To secrete more of the hormone nicotine from the beta cells.

Due to the see emphasized that biochemical responses are often related to the human body to the quantity of its physical effort, whether that physical attempt is violent or mild as endorphins are made beneath the hypothalamus and secreted in the blood by means of the pituitary gland (frontal lobe) in strain states and the sensation of ache, as endorphins perform that feature thru its affiliation with pain receptors inside the nerve cell, and accordingly relieves the feeling of ache. it's miles the identical function as narcotic tablets (chemically manufactured) like morphine, but the use of those capsules ends in addiction, as for endorphins, it's miles excreted certainly within the human frame [3].

As for enormous differences between the assessments earlier than and after the effort of the studies sample for the serotonin variable, the researchers attributed the effect of belly sports and their application in a normal way that had a clear effect at the members of the pattern via the synthesis of serotonin hormone and the excessive
stage of mental fitness and increased self-self-belief and a sense of happiness and psychological pleasure and optimism and healing of vitality. The hobby and the spirit of organization participation in the aged [4]. The human overall performance of sporting activities from (1-3) instances daily, in an easy and light manner, via (8-12) weeks will increase the serotonin hormone, which helps lessen strain and psychological anxiety [5]. There is a particular time of approximately eight to twelve weeks in regular physical games to be tailored and made nice in increasing the secretion of Serotonin which helps the feeling of happiness and interest, and that there are vast variations between the assessments before and after the physical games for the research pattern of the variables endorphin and serotonin, and their high percentage in the blood had, significantly affected the mental health of the elderly via statistical values (t) and enhance their temper, as they attributed this to, that the approach used to carry out the physical activities by using the researchers, gave the ideal atmosphere for the aged from the I revive the moral, spatial and psychological components and their software in an everyday recreational and recreational way, as he used the effectiveness of fun and happiness a number of the sample contributors with researchers and between the members of the sample themselves, and that caused the formation of a close courting among its members, which brought about accomplishing positive outcomes [6]. The light and medium sports are searching for to gain mental consolation and uplift within the physical, physiological and mental level and expand the inner organs of the practical organs of the individual frame, and add happiness to the aged and deliver them public fitness and boom their brotherly love and interdependence in society and assist existence and those advantages a couple of cans be executed and gained only thru the overall performance of physical games that comprise a couple of sports [7].

In conclusion, the exercises prepared by the researcher have a clear effect on raising the level of the hormones endorphins and serotonin in the blood.Significantly affected the mental health of the elderly as a result of the relatively high hormones endorphins and serotonin.

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