

A Suggested Rehabilitation Program Using Flexibility Exercises to Treat Lower Back Pain

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Abstract

In this research, the focus of the program was on therapeutic exercises to find out how effective they are in removing pain in the lower back region, or which one is more effective to reduce their effects and the extent of its importance or role in the rehabilitation of the injured and their return to their normal life, and the research aimed to know the effect of the rehabilitation program on the back muscles and the spinal ligaments in the treatment of lower back pain, assuming that there are significant differences in the treatment of lower back pain, and the research sample consisted of (6) patients, whose ages ranged from (30-35) years old, and who suffered from non-acute pain at the bottom. Back in Basra Teaching Hospital / Basra Governorate Health Department, in the Department of Joint Diseases and Fractures, and then the researcher came to a set of conclusions, including that exercises have the effect of increasing the length of some muscles and flexibility of some other muscles and reducing pain in the lower back region among individuals. The research sample and that the program worked on increasing the frontal flexibility of the spine and greatly reducing the degree of pain. Graduated to help the patient to cope with pain as a result of spasticity and stiffness.

Keywords: Program focus, Pain relief, back muscles, lower back, Therapeutic exercises

Definition of the research

Introduction and the importance of the research

As a man with a family in the GS, we were present in the performance of his duties and his requirements are great to keep pace with the progress of scientific and technological enormous and in various fields and facilities life, all of which led to a decline in the level of Nash framework devices neighborhood priority and work, making it vulnerable for many diseases and injuries. And injury column spine in general and the pain area of the bottom of the back in particular from Alasab data Almtal Ge causes by laziness and inactivity and Su E movement and habits wrong and roll Trat long in a sitting or when carrying things heavy, and in The performance of the voltage of higher construction physical weakness fitness and not a practitioner of sport, which in turn leads to the weakness of the construction of physical weakness which afflict the muscles externa rack lower (the muscles of the thighs front and rear) weakness of the muscles associated with Paljza infections Muf Pray sacral (iliac) and the factor of obesity as well as accidents and what Lint c about the bruises on the column thousand villages and other works of mechanical, which requires an effort great to accomplish and diseases thousand read and there are reasons for this pain resulting from poor Altaghi Zat and Allosai for and tools it a (shoe) and the hardness and lack of validity of The floor of the halls closed to play, which leads to stress and effort high on Ala Maud spine, as that with del injury this pain up to a person and one of my n every six people. (Vijay B. 2004) And n Result interesting is clear from by scientists and researchers programs exercises qualifying and therapeutic knowledge of the factors that affect the use of therapeutic exercises that the most important physical condition and mental movement of the muscle and the integrity of the tendon, (Smiep Khalil, 2004), it has imposed the problem itself in search of scientific ID of the extent of the effectiveness of those programs and the impact Tmarenadtha in the treatment of injuries or reduce the pain as well as knowledge of Afzali Tha in the Vaa Mechanism to minimize the effects of injury. And for the yolk beginning to develop exercises therapeutic exercises Flexibility it is one of the main factors important to maintain the health of the individual and Al especially in the back pain injuries. (Wadih Yassin, 1986) and in addition Mazzi d of information about its impact in removing or reducing pa m pattern s of the lower back, where he emerged as t important scientific this study, to shed light on the extent of its importance and its role in Tahi for the injured and their return to the practice of Hayat are a natural. The Ttj Li a fake study applied to by supplying those interested and working in the

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field of treatment natural in pain helped the answer to some questions about the impact of exercise therapy which is valuable. Dalbges through what reached its findings and recommendations, and work to restore the flexibility for the muscles of the back some muscles other and ligaments hinted Juttah column spine. The mother down the afternoon occur due to deficiencies in the fitness elements, including the lack of flexibility of the muscles and ligaments that underpin the work and Dr. spine - illite n and thighs and the flexibility factor, which is the focus of the move of Table cm around the joints associated with it. (Ashraf Desouki, Magdi Woodcock, 1999) and the processor of and remove Ootkulail pain down the back, to get to the best and the most appropriate rehabilitation of through the methods of treatment aimed at targeted for patients aged (30 - 35) o NH (strengthen the muscles of the lower back of the factors that avoid pain hypothesis Tq priority back muscles reduce the proportion of disability that accompanies the pain back or imbalance Alos Levy accompanying him. (Teery & Athers, 1984, P: 17)

The problem of research w

The research problem is unified to answer the following question: The extent of therapeutic exercises in the program on Z Ahrobed Ala Dilat muscles and the surrounding ligaments. Spine, to remove or taut, pain area of the lower back, sufferers ages (3 0-35).

Goals of research

1. E-meter and sublimation from a therapeutic Bitumen rehabilitation program that affected the back muscles and hammams of a thousand villages.
2. Knowing the effect of the rehabilitation treatment program on the back muscles and its weak exercises in treating lower back pain.

Imposing the Search

The researcher is pleased with: The program of rehabilitation of the button muscles and the intervertebral ligaments has anthermanua to eliminate the pain of the lower back area.

Areas of research

Human field: - People who suffer from acute lower back pain for those aged 30-35 who are touched by the healing of teaching in Basra - Division of Joint Diseases - Physiotherapy Unit

Field time j Length of (13/ 1/ 2019) up to (7/ 4/ 2019)

Desorption the spatial

Hospital of Basra Teaching - Division of diseases of the joints - Unit treatment natural

Approach the search and procedures Field- :

Use the favor c demo (group one of two tests of tribal and dimensional) of the suitability of the research problem.

Tools the Search

Research Society

The societal research identified the injured who suffer from acute pain in the Lower Asr region) and who are receiving treatment at Basra Teaching Hospital - Department of Joint Diseases - Physiotherapy Unit for an adult population (6) m who lives with three patients aged (0 3) and two wounded aged (3 2) Years old and one (35) years old wounded

Means c with data

1. Almassadro pain Raj p.
2. Test and thrown S.
3. Ala_said.
4. Notable of.

Term shake tools help

Ast served as the researcher w hardware and tools the following- :

1. Table with m Euclid listed in the manna describe to measure flexibility.
2. Calculator scientific type Cass Yu.

3. Form for Tsja for the codification of the results of the tests.
4. Buzzer Uah Dah.

Procedures of the search field

In order for the researcher to achieve the goals of T. to achieve the following scientific and detailed steps, from the following: - Determine a tape measure (elasticity of the back muscles, degree of pain, unfortunately for the back) as the researcher performs the survey. The available resources for arranging the test on the flexible Yas insect of the back muscles, the pain stairway at the lower back, culminating in the test nomination (flexibility of the back muscles by placing them at the right time). [VAS] Pain test after presenting to the six experts and specialists (6 specialists), and they reached their agreement to accept his candidacy, in order to achieve the required percentage (100%). Pain is the resilience factor and one of the main factors important to maintaining the health of the individual, especially in the traumatic mother's injuries resulting from the lack of flexibility of the body's joints (Ibrahim Al-Basri 1987

Table No. (1) Clarifies the nomination of a test for flexibility of the cast muscles in agreement with the opinion of experts and specialists in pain and a measurement of the flexibility of the research sample.

Acceptance nomination for		Visible percentage Achieved	Number of points	the test	variable
No	Yes				
-	Yes	%100	6	Flexibility of the back muscles from standing	Muscle flexibility
-	Yes	%100	6	Pain	The degree of pain in the lower back

Experience survey J of

To know the safety of the equipment and to achieve the YAS tests, Flexible Muscles and Back Pain (VAS) joined the TeX folding brightest and face the researcher who touched it previously, a researcher conducted the first poll test on all of radalbges, and at 9:30 pm on Sunday 20/1/2019 Until January 24, 2019, during which R achieved the following objectives:

1. Adjust a timely t necessary for the health of the application of the vocabulary program and test.
2. And understanding of contexts v Tabagaha test and its instructions from before the injured.
3. the extent appropriate of time, place and machines and tools used in progress Search
4. determine the validity of the form that has been prepared for recording the results of the test BBS data estrous Ge and Classifieds
5. Know the possibility of assistant team and the level of their performance.
6. To know the motivation of the patients and their response to the application of the test.

And after the completion of the goal of the exploratory experiment. And to ensure the analysis of the vocabulary test (flexibility of back muscles, and (VAS) pain) the correctness of what and their health in measuring the component of the elastic back muscles and the degree of back pain, what is the success of the survey experiment.

Transactions of scientific test

The researcher cited the transactions (honesty - firmness - thread Yes) for flexibility of the back muscles, and (VAS) pain, and Jan's bump in the poll experiment on the research sample.

First - honesty

I conclude the researcher ratified pain Htoy to test flexibility of the muscles of the back) VAS (Pain ,after the collection of the results of Ala_ that the validity of the experts and specialists to measure the flexibility of the muscles of the back and the degree of pain down the back.

II. Stability

An extraction coefficient for dorsal data to test back muscle flexibility and sub-Z Hr region pain and the correlation relationship between results of the first-applied measurement on day M T W T Moavs (23 January 2019). About societal research in the experiment and the second measurement applied to the approved Khamis poll (01/24/2019). Then the coefficient of correlation (Spearman) is calculated between the results of the first and second application, which is explained by Table 2, the significance of the ranks at grade (3, 705) on freedom (4), the level of significance (0, 05), and the value of (t) calculated at (4, 312) respectively, and Okbermn (2, 78) is a tabular table, and this indicates that for the n-test a high degree of stability.

III - subject me of

The extraction coefficient for the subject Y is a correlation relationship between the results of two judgments in the exploratory experiment, through Ful Yas II (retest), the value of the correlation coefficient (Spearman) was among the results that occur with an ambush and is P until the test (muscle elasticity Alza t) with m Objectivity is high, so the value of (t), computed for significance with the correlation of the adult nucleus (4, 5 45), is greater than (2, 78)) tabular from . , At the degree of freedom (4), and the level of significance (0, 05), Table (2)

Table (2) Table (2). The value of the index of stability and objectivity and their significance for the test [Elastic back muscles, pain applied to the survey experiment sample.

Statistical significance	The calculated t value	Objectivity factor	Statistical significance	The calculated t value	Stability coefficient	the test
moral	45 4,5	64 0,9	moral	312 ,4	0,912	Flexibility of the back muscles
-	-	-	moral	705 ,3	73 0,8	Pains (vAs)

Salah J of the test (ful Dorra discriminatory)

To calculate the coefficient Tmiazachtbara (flexibility of the back muscles, pain scores for the thief C, (VAS) the ranking of the results of the two tests applied to the yen on the diamond between the FIA to experiment with the survey order in ascending mn the upper part of the lower, then divide the ranks and then into two parts, then order statistical indicators Aya for the two groups After being processed by the test (Manoitni), the diamond touched two words and got a result (2 = 2), (n2 = (zero), the (Manoitni) value, the statistical index function of Eyez tests, and the value (zero), which is less From Meh (0, 433) threw the Yeh table, at Mekdaral the sample: (n 1 = 2), (n 2 = 2). The indication of the level B (0, 05), and which Joel CD, the ability of Ashtbali swan Eze among the casualty results, How A in Table (3)

Table (3) shows the discriminatory ability of the general test applied to the reconnaissance experiment sample (vertical jump from stability)

Statistical significance	(Mann and Yantai) Pretesting feast S		the test
	Tabular	Calculated	
Distinctive	0 , 43 3	Row t	Flexibility of the back muscles
Special	0 , 43 3	Row t	Pains vAs

And the sum ,which came above a test flexibility of the muscles of the back ,pain) VAS ,(who were subjected to the experience of reconnaissance ,they are two tests are valid for the nomination.

Experience President of

After completing the most urgent access to the results of the survey, which resulted in the brother competing [flexibility in the back muscles and (VAS) pain]] [is able to distinguish between strong and weak people, and have stability, objectivity and a high degree in addition to being honest in measurement (flexibility) Back muscles, the

degree of pain in the lower back, and the researcher's experience on the twelfth main day, corresponding to 28/1/2019 for the implementation of the program and proposed rehabilitation exercises on a community research. Physical therapy exercises have been prepared to contribute to increasing the flexibility of the muscles of the lower back region and their strength and pain relief according to scientific sources and foundations ... and agree experts and specialists in the field there is no training, sports medicine and rehabilitation on the appropriate vocabulary program after it is introduced to them, they also have some additional experience and omit others to strengthen the muscles of the abdomen and back. (Firas Abdel-Zahra, 2000) Lee Reality Research Objectives, Anzarmllh Q (1, A – H) The program C, vocabulary e and therapeutic exercises were designed with the following in mind:

1. The introduction of practice, flexibility and ease of practical application by the sample.
2. The loads and times of the proposed Warren negotiation program suit the casualty to achieve the research objectives.
3. Yahuwah's reality: goals, means, tools, and appropriate responses to the capacities of pain coexisting with them.

Dah carried out the program (8) weeks, at a rate of (3) units per week. Exercises were carried out in the circular method of training in the days (Saturday, twelfth and Wednesday). The total units were out of the total (24) units.

First / warm-up

The warm-up group included a group of water exercises, a cylinder, and aren jumping on spots and relaxing exercises for the upper limb muscles of the male and torso degree.)

Second / Take the name of the president

And for this section the physical vocabulary of the cooking program for me and the practice of treatment for it, where the performance time was (30) minutes, taking into account the gradient in the limit and accuracy in the correct performance of the exercises that in order to obtain a full relaxation of the muscles to avoid the mussels, whatever the injuries, as the exercises Excessive tension reduces the chances of pain relief. Therefore, the principle of gradation in intensity must be adopted to eliminate pain, and return to the normal position. (Salah El-Din Al-Hiti, 2003) and taking into account the appropriate load and the intensity of training, because the increase the intensity of the exercise during the treatment units should be more gradual. (Muhammad Hob Dr. AL, and Hassan Taha Yassin 2008).

Post test

On Saturday, March 30, 2019, a post test, after completing the treatment units for the sample members in the same conditions as the pre-test, were treated, and the results of T. were treated after T. Thep. I wish it was a statistic.

Statistical Research Methods (Muhammad Abd. Al and Yassin Hassan Taha, 2003)

- A Lucy Anna.
- However, n twists of a spring.
- Correlation coefficient only (Spearman)

However, Khet Bar is triple-loyal.

E Chtb R (Good Cooking Age)

E x Type R (Manichean v nee)

Show and open the night and discuss the marginalized results

P RIP and T. Allen analysis of results

P for shocks and analysis of test results (elasticity of the back of the pregnant woman)

Yes, Table (4) the values for each of the median, not the spring, tribal, dimensional, and coxon value for the pillar (a backstop flexible a)

Table No. (4) The values of the mean, preceding and posterior deflection of the spring and the Wilcoxon value for the test of (back elasticity resistance).

indication	The Wilcoxon value	Post test	The pretest	the test
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	Tabular	Calculated	Vernal deviation	mediator	Vernal deviation	mediator	
moral	Zero	Zero	14 ,3	8	13 ,2	4 .2	Back flexibility from standing

It is evident from the results table no. (4) Related to the test (the elasticity of the position of the timber that the calculated value of the test (and COXON), (zero a), was equal to the scheduled value (zero a) at 0), and this indicates the differences of Z in the truth of its moral significance, In favor of a bad test. The test results (Merwin from the Zarmen website) showed the tribal dimensions of the research sample size (6) and the level of significance (05)

Display and results for the night E. Test (measuring not only Stlq DONC)

And in the countries of Table No. (5), which shows the mean values, the spring deviation of the tribe, the dimensions, the test value, and COXON (for measuring the degree of torture for lying only.)

The significance	The Wilcoxon value		Brother Tabar posttest		Test the tribal		Brother Tabar
	Tabular	Calculated	Vernal deviation	mediator	Vernal deviation	mediator	
moral	Zero	Zero	3 ,1	3	2	7 .81	Flexibility of the back from lying down

Shows that the value is computed (zero) for the test (and Coxon), and to make it equal to the Meh scale (zero) received from this j shows that the process and s between the test results (to measure the degree of torment of the receptive site) are infectious before the ureter, relative to the sample size (6) victims Level D for device (05), they are significant differences and are only valid for post-testing.

View and analyze test results (measure pain from Nbills only)

Table No. (6) Shows the mean values, the quartile deviation, the tribal value, the dimensions, and the Coxon test (measuring the degree of pain from prone).

The significance	The Wilcoxon value		Brother Tabar posttest		Test the tribal		Brother Tabar
	Tabular	Calculated	Vernal deviation	mediator	Vernal deviation	mediator	
moral	Zero	Zero	13 1,1	4 1,7	63 1,3	5	Measure pain from prone

The results of Table (6), for the test to measure the degree of pain from lying down, show that the calculated value (zero) for the (Wilcoxon) test is equal to the tabular (zero) 0, and this indicates that the differences between the results of the test (measuring the degree of pain from prone) pre and post. When a sample of (6) had a significant level of (50), it was the significant difference, and in favor of the post test.

Discussion of the results

The apparent differences in arithmetic circles between the pre-test and the post-test, which are shown in the previous tables, led to the emergence of significant differences in the statistical values. The researcher explains this to the elasticity of the back muscles and achieving the degree of pain in the lower back that improves its level and these results of course With the effect of the exercises used in the program, as the majority of them were directed mainly to the elasticity variable, the moral in this variable worked to increase the flexibility of the ligaments and muscles working on them, so the mobile exercises worked to increase the frontal flexibility of the lower back region and its vertebrae as the sources proved that Determining the range of motion of the joints is the first symptom that appears after an injury, lower back pain due to muscle spasms and aggravating the pain. Moving exercises work to develop muscle strength as well as flexibility and muscular endurance. The tables also show clear differences in the degree of pain in relation to the degree of pain, if it decreased in the post-test, considerably from its value in the pre-test. The

program is to reduce lower back pain for the research sample in the first phase in terms of removing spasticity and stiffness as a result of pain and increasing the working muscle strength and stamina in the second phase, which led to a decrease in pain degrees in the two positions lying and lying down.

5- Conclusions and recommendations:

5-1 Conclusions:

The researcher, through his research, reached the following conclusions:

- 1- The exercises of the proposed rehabilitation program increased the anterior flexibility of the spine and decreased the degree of pain in the lower back region significantly among the subjects of the research sample.
- 2- The program generally had an effect on increasing the elongation of some muscles and the flexibility of some other muscles and reducing pain in the lower back region among the subjects of the research sample.

5-2 Recommendations:

- 1- The researcher recommends the necessity of graduation in the therapeutic exercises approved in the rehabilitation programs for the injured, especially for lower back pain, and the necessity for the sufferers to adapt to facing spasticity and stiffness as a result of pain.
- 2- Continuing to research problems and designing similar and different rehabilitation programs in similar and different injuries in all sporting activities and events.

References

1. Ashraf El-Desouki and Magdy Duke, back rehabilitation exercises program after a herniated disc in the lumbar region. UAE University (Scientific Indicator, The Reality of Arab Sports for Its Future Ambitions, 1999.
2. [http:// www. Sport doctor.com, / Vijay B. Fad; Yoga and meditation for lower back pain. 2004..](http://www.Sportdoctor.com/)
3. Terry and (others); Physical activity for all ages. Second Edition: (NSA, Kendall hunt Publishing Company, 1984) P .: 17.
4. Abrahi Muhammad Al-Basri. Football Hit, Daddy Bags: Press Progress, 1987.
5. N Jackson. C. P. and Brown MP; Is there an exercise Error in the treatment of patients 1982 company.
6. Wudi PB Yasin Muhammad Ali Physical Numbers of Women. Mosul: University Press, 1986.
7. Name the nature of Khalil Muhammad. Sports injuries. University of Baghdad College of Girls Walt Spring 2004.
8. Firas Abdel Zahra, the proposed platform to rehabilitate the muscles of the cat area, with the intention of otherbed, high Yale cohesion injuries. Master Thesis, All Mathematical Soils, 2000.
9. David Bronstein; Sports Medicine: (sametz, [http:// www. Blackstone Associates. Com](http://www.BlackstoneAssociates.Com), 2003.
10. Salah al-Din Hussain al-Lahti. Statistical Methods in Science Management, Amman: Wael In Sharr House, 2003
11. Mathaq Muhammad Hamad Abdul Nuaimi and Hassan Yassin. Applied Statistics, 1st Edition, Amman: Dar Wael In - Alshar 2008.
12. M. Hamad Abdel Aal and Hassan Yassin Al-Zouk. Applied Statistics, First Edition, Oman: Wael Publishing House, 2003.

Pain later

Appendix No. (1)

The training (treatment) curriculum is offered in weeks

Walt Training Seminar ... Eight stations (exercises). Each week contains three modules

(1 / a) the first week

Two circles%	Number of circles
60	Intensity

8	Repetition (volume)
60seconds	Rest between repetitions
(3)Three of minutes	Rest between circles

Circular exercises ... eight stations (exercises). Each week contains three modules

(1 / b) The second week

Two circles%	Number of circles
60	Intensity
10	Repetition (volume)
60seconds	Rest between repetitions
(3)Three of minutes	Rest between the circles

Circular exercises ... eight stations (exercises). Each week contains three modules

(1 / c) the third week

Two circles%	Number of circles
5 6	Intensity
10	Repetition (Hajj m)
65seconds	Rest between repetitions
(3)Three of minutes	Rest between circles

Training ring ... eight stations (exercises). Each week contains three modules

(1 / d) Fourth week

Two circles%	Number of circles
0 6	Intensity
8	Repetition (volume)
60seconds	Rest between repetitions
(3)Three of minutes	Comfort me n circles

Circular exercises ... eight stations (exercises). Each week contains three modules

(1 / e) Fifth week

Two circles%	Number of circles
5 6	Intensity

15	Repetition (pressed g)
70seconds	Rest between repetitions
(4)Four minutes	Rest between circles

Circular exercises ... eight stations (exercises). Each week contains three modules

(1 / f) Sixth week

Two circles%	Number of circles
75	Intensity
20	Repetition (volume)
75seconds	Rest between repetitions
(4)Four minutes	Rest between circles

Circular exercises ... eight stations (exercises). Each week contains three modules

(1 / g) the seventh week

Two circles%	Number of circles
75	Intensity
20	Repetition (volume)
85seconds	Rest between repetitions
(5)Five minutes	Rest between circles

Circular exercises ... eight stations (exercises). Each week contains three modules

(1 / h) the eighth week

Two circles%	Number of circles
70	Intensity
15	Repetition (volume)
70seconds	Rest between repetitions
(4)Four minutes	Rest between circles

Exercises

The first exercise (1): - Bend the legs by forty-five degrees and gently tighten the legs with the hands placed towards the abdomen and work on the back extension muscle stretching exercise. You can do the bending and pulling exercises one by one.

Walt Marin II (2): - From placing the individual in the prostration of his arm forward until he feels unemployment and tension in the back muscles.

Walt Marin III (3): - from the position of the cat relies on hands and knees with a T-back arc unfortunately, the head of the rack and the T arch back up, decapitation and no severe pressure at the end of a long period insisted kneeling.

Walt Marine 4 (4): - Raise the head and buttocks each through q in response to the arm palin, and the Anbar grinding position, and this exercise prevails on the elongation of the abdominal and thigh muscles as it helps to grow in a timely manner.

The fifth exercise (5): - For an individual seated with his right leg and tilting the body forward to touch the toes, repeat the exercise Yusr Z for the leg. The exercise works to lengthen the hamstrings muscles.

Alice Ladis Exercise (6): - From the position of lying on the bed, including the legs to the knees, the leg rack with the hands until the alpine ton, feeling the tension of the muscles with the stability of the other leg and its dislike through training the other leg.

The seventh exercise (7): - We put the position of extending the leg forward and bending the other back, with the body tilted forward for a thousand strokes. The mother takes the back leg of the mother.