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DEVELOPMENT OF PSYCHOLOGICAL SKILLS FOR SUCCESS IN VAULT TABLE

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Abstract:
Purpose. Numerous coaches and athletes maintain that the ability to reach optimal sport performance is 90 percent mental. The main purpose of this study was to examine the effects of mental training on psychological skills and performance levels of vault table.
Methods. Forty female students were randomly allocated to receive either a 10-week intervention of mental training (n = 20) and a control group receiving 10-week of normal training only (n = 20). Psychological Skills scale for Bull, Albinson, Shambrook, (1996) , physical abilities and performance level of vault table were measured pre and after the intervention program .
Results. The results revealed that all psychological skill variables, coordination, flexibility, muscular endurance and performance level of vault table was significantly higher in the experimental group compared with the control group. There were no significant differences for leg power and speed between the two groups.
Conclusion. Finally, 4 mental training sessions for 10 weeks, resulted an increased of Psychological Skills and Success in the Vault Table.
Key words: mental training, psychological skills.

Introduction

The progress of nations is the style of thinking and not products of civilization Foreign and we work thought and mind so that we can get to the desired end, and has reached the level of performance in gymnastics developed countries athlete in recent years to the point of extreme performance outstanding in all aspects, physical, technical and psychological and mental due to results of studies and scientific research and development of scientific instruments and tools assistance and scientific methods in training players, and that access players to the highest level can be achieved only through the development of various abilities and skills and qualities and knowledge players are increasing their capacity to achieve the maximum level athletes .

During the recent period has seen gymnastics evolution highest global level is of activities amounting difficulties influencing overall body organs and its members to ensure consistency and integration in terms of consistency muscle growth, joint flexibility, increase balance, and change body positions in the air, and increased tolerance of some organs of the body so must Development psychological and physiological aspects beside the scientific basis for training to improve motor skills. (Aziza, 2005)

The vault is an artistic gymnastics apparatus, as well as the skill performed using that apparatus. Vaulting is also the action of performing a vault. Both male and female gymnasts perform the vault.

The Horse is device extremely difficult of the four basic groups in artistic gymnastics also features horse jumping performance one skill at a time between 6 - 8 seconds according to the type of jump, and the performance period of the jump until landing of 4. - 6. W. (Zakaria, 1996)

The horse has been blamed for several serious accidents over the years. In 1988, American Julissa Gomez was paralyzed in a vaulting accident; she died from complications from her injuries three years later. (Ahmed, & Mamdouh, 2000).During warm-up's at the 1998 Goodwill Games, Chinese gymnast Sang LAN fell and suffered paralysis from a cervical-spine injury. (Fatima, & Zeinab 2005) In a series of crashes when the horse's height was set too low (Valentin, 2011) at the 2000 Olympics, gymnasts either

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rammed into the horse's front end, or had bad landings after having problems with their hand placements during push-off. The degree of performance evaluation on a par with the rest of the gymnastics equipment that requires a range of skills in the form of inter kinetics and this attention helps the players to get to an appropriate degree .In spite of this there is a big effort dressing gown in training on a jumping horse, but it is a noticeable lack of the final grade players on this machine in the world championships and courses Olympic. The skill front somersault on the hands on a horse jumping skills Important, which represents the degree of difficulty especially among college students due to lack of availability of certain physical abilities for this skill has a large number of students which requires a period sufficient number so that during boot to this skill better physically - Skills and technically even managed student performance skill as the artistic right to achieve a high degree on the device.

To focus attention of the mental processes and psychic activity which is carried out by appropriate force to stimuli associated with one type of activity of certain parts of the brain where you these parts jamming parts is focusing and leads to distracting, and focus attention part irreplaceable in training, so you should always focus the attention of sports by the continuous selection of the target is clear for certain duties. (Nahed, 1997).Through teacher researcher Article gymnastics altogether to note the low level of performance students on a horse jumping, although the performance it requires skill and only one, as the performance of the jump does not take more than seconds and this decline affects the total scores student in substance gymnastics, which may be due to the lack of interest in the implementation of the lessons of gymnastics to focus on the development of mental activity and mental processes next to the development and improvement of the physical attributes for your horse jumping.The researcher felt that the development of psychic activity and mental processes next to the development and improvement of physical attributes and for your horse jumping is one of the most important factors that influence the level of the students in order to reach a better level of performance on an important organ of gymnastics. Thus, the main purpose of this study was to examine the effects of mental training on psychological skills and performance levels of vault table.

Methods

This study was conducted to deliberate random sample of third year students at the Faculty of Physical Education for Girls in Cairo, has been selected researcher for the third row for the following reasons:

- The researcher taught to members of this sample, making it easier to collect a sample search.
- That skill front somersault on the hands on a jumping horse of the basic modern skills and planned for this band.
- And includes sample (45) students then selected randomly from among third year students based researcher taught them and then were selected (20) demanded of them randomly as the experimental group and (20) as control student and after excluding
- Absent a lot of students during the application of the program and their number demanded
- Practicing gymnastics of the two groups and their number two students.
- Female survivors of the back and the number one and only.

Thus becoming the research sample (40) female student.To ensure the occurrence of the same search under the curve equinoctial, the researcher conducted homogeneity between members of the same research and to achieve parity for the two sets of research (experimental and control), the researcher also finds significant differences between the two groups in the tribal measurement of the following variables

- Age, height and weight Variables.
- Psychological variables.
- Physical variables of (muscle power of two men - the ability muscular arms - speed - flexible shoulders - flexible back - Compatibility - muscular endurance.
- The skill level of performance (skill front somersault on the hands on a horse jumping.

Tools

The researcher used tools, and the following tests to collect data for research are as follows- :

Hardware

- A device for measuring the height (in centimeters)
- Balance to measure the weight of medical (KGS)
- Fund PBX.
- A trampoline.
- A horse jumping.
- Ground movements.
- Peace Wall.

Gadgets

- Stopwatch to calculate the time.
- A wooden ruler length 100 cm.
- Chalk, magnesium carbonate diluted (Manezia(
- Adhesive strips for installation.
- Mattresses for training at different elevations.
- Forms (for the application of psychometric)
- Tests and measurements used.

Physical tests

After a poll of experts to identify the most suitable tests that measure physical skill variables under Attachment (1), and then determine the following tests

- Vertical jump test for sergeant - to measure the ability of muscle men
- Medical test pushes the ball from stand to measure the ability of muscle to arms
- Test runs 15 meters for measuring speed
- Test (pressing shoulders with a stick) to measure the flexibility of the shoulders
- Test trunk raised up a lie to measure the flexibility of the back
- Test rope to measure the compatibility
- Leaning testing lie stand to measure muscular endurance

Skill tests

Measuring the level of performance skills for the skill in question :

Ways to assess the level of performance on the vault in the skill of Somersault front of the hands using jury by 4 umpires and head of the (faculty members were selected so that the degree of teacher at least), each one of them is given a degree of student, and you major umpires write off top class and lower class is calculated from an average Class The class was divided into phases jumping which students were assessed on the basis of which are as follows:

Psychological Skills Scale. The researcher used measure of psychological skills and designed by Stefan, et al. and was prepared to image Arabian by (M. Allawi, 1996) this measure contains 24 words divided on six dimensions (the ability to perception - the ability to relax - the ability to focus attention - the ability to face anxiety - self-confidence - sports achievement motivation) and all after thereunder four phrases The Screened answer phrases scale hexagonal staging (Applies to a very large extent - significantly - moderately - a lower degree - a very small degree - do not apply to fully)

- Statements after the ability of visualization and the figures are 1, 7, 13, and 19 are positive words in the direction of the dimension with the exception of the phrase No. 13 they take to reverse dimension.
- Statements after the ability to relax and numbers 2, 8, 14, 20 are positive words in the direction of the dimension with the exception of the phrase No. 8 is reversed dimension.
- Statements after the ability to focus attention and numbers are 3, 9, 15, 21 and all statements in the direction of the dimension.
- Phrases ability to cope with anxiety and figures of 4, 10, 16, 22 and all statements in the opposite direction dimension.
- Statements of self-confidence and numbers 5, 11, 17, 23 and ferries 5, 17 in the direction of the dimension and ferries 11, 23 in the reverse direction dimension.
- Mathematical expressions of achievement motivation and numbers 6, 12, 18, 24 and all statements in the direction of the dimension.

Surveys

The researcher conducted the survey on the same exploratory research and numbers 10 students from the research community and outside the same basic research in order to identify:

- The suitability of the same tests used for research.
- The safety and validity of the place the tools and devices used in the implementation of the program.
- Appropriate and fit the content of the module with time allotted and temporal distribution.
- Identify training loads in terms of intensity and volume and rest periods Rating loads according to their abilities during the planning of the training program proposed.
- Difficulties that may face the researcher during the application of the baseline study.
- Training assistants on how to conduct measurements.
- Conduct scientific transactions (honesty - Persistence) and verifiable.
- Transactions scientific physical and skill variables and psychological (honesty – Persistence)
- The researcher calculates indication of differences between two groups, and for a psychological skills Scale has made researchers using the application and return it to a sample search reconnaissance and an interval of 15 days from the first application, and to calculate the honesty researcher used to ratify internal consistency that has been calculating the value of the correlation coefficient between the degree of each statement The total score after and between the degree of each dimension and the total score of the scale.
- To calculate the stability of the physical and skill tests and psychological researcher has applied to the sample where the exploratory tests

and re-application of the exploratory sample and two days interval from the first application was calculated link between the two applications.

- To calculate the honesty, the researcher using the sincerity between the two groups, one characteristic (Artistic Gymnastics college teams) and their number 10 students, and the other is distinctive (exploratory sample) and their number 10 students were applying physical and skill tests them.

The mental training program**.**The training program aims proposed for training mental to develop a plan training codified to achieve specific objectives in an attempt by a researcher to reach female students to the best level for some psychological skills (muscle relaxation - the perception of mental - focus attention - the ability to face anxiety - self-confidence - achievement motivation), as well as to the best level of performance skill front somersault on the hands on a jumping horse, have been identified for the program by (10) weeks by four units a week.

Baseline study

The researcher conducting the baseline study on the experimental research sample in the first semester of the academic year 2008/2009 where the measurement was made for the two groups of tribal research experimental and control groups were

First tribal measurement.The hold tribal measurement and survey in the period 7/10/2008 to 9/10/2008 in all the selected variables under the physical and skill tests and measure mental skills.

Implementation of the proposed training program for the experimental group and the traditional approach to program the control group in the period from 12/10/2008 to 28/12/2008

The program included four daily units per week total of over (10) weeks training and daily per unit time (60) minutes

Dimensional measurement**:**After the completion of the application was a dimensional measurement of the physical and skill tests and measure mental skills on the two groups of experimental and control research in the period from 29/12/2008 to 31/12/2008.

Results.

Table (1) significant differences between the pre- tests for the two groups (experimental and control) in Age, Anthropometric - physical variables and Skill performance level (n=40)

	Variables	Control group		Experimental group		(T) Test
		Means	SD	Means	SD	
1	Age	18.47	0.52	18.27	0.46	No Sign
2	Heigh	158.68	3.04	160.20	2.91	No Sign
3	Weight	58.20	5.66	56.40	7.21	No Sign
4	Leg power	29.60	9.25	24.73	6.32	No Sign
5	Arm power	5.43	1.24	4.88	1.03	No Sign
6	Speed	2.9	0.61	3.16	0.51	No Sign
7	Shoulder flexibility	66.27	14.97	74.93	19.13	No Sign
8	Back flexibility	36.40	8.46	34.33	6.69	No Sign
9	Coordination	2.13	1.25	2.07	1.22	No Sign
10	Muscular endurance	2.67	0.62	2.53	0.64	No Sign
11	Skill performance level	1.5	0.94	1.37	1.08	No Sign

Table (1) shows no statistically significant differences ($p \leq 0.05$) Between pre- tests for the two groups (experimental and control) in Age, Anthropometric - physical variables and Skill performance level.

Table (2) significant differences between the pre- tests for the two groups (experimental and control) in mental scale factors (n=40)

	Factors	Control group		Experimental group		(T) Test
		Means	SD	Means	SD	
1	Mental imagery	10.4	1.55	9.8	1.37	No Sign
2	Muscular relaxing	9.67	1.29	8.93	1.39	No Sign
3	Attentional focus	7.93	1.33	8.73	1.71	No Sign
4	Anxiety coping	20.07	2.02	20.73	0.88	No Sign
5	Self- confidence	14.07	1.71	13.33	1.88	No Sign
6	Achievement motivation	7.47	1.92	7.00	1.65	No Sign
7	Scale total	69.20	4.29	71.2	4.62	No Sign

Table (2) shows no statistically significant differences ($p \leq 0.05$) Between pre- tests for the two groups (experimental and control) in mental scale factors.

Table (3) significant differences between the pre- tests and post – tests for the control group in physical variables and Skill performance level (n=20)

Variables	Pre - tests	Post - tests	Change	(T) Test

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		Means	SD	Means	SD	%	
1	Leg power	29.60	9.25	35.03	8.23	18.48	Sign
2	Arm power	5.43	1.24	7.15	1.74	31.68	Sign
3	Speed	2.9	0.61	2.49	0.56	14.14	Sign
4	Shoulder flexibility	66.27	14.97	66.27	15.95	9.79	Sign
5	Back flexibility	36.40	8.46	39.93	10.45	9.69	No Sign
6	Coordination	2.13	1.25	3.2	1.01	50.23	Sign
7	Muscular endurance	2.67	0.62	3.8	1.26	42.32	Sign
8	Skill performance level	1.5	0.94	5.17	1.38	244.67	Sign

Table (3) shows statistically significant differences ($p \leq 0.05$) Between pre- tests and the Post - tests for the control group in all physical variables and Skill performance level except Back flexibility. And the improvement rate between 9.69% to 244.67%.

Table (4) significant differences between the pre- tests and post – tests for the control group in mental scale factors (n=20)

	Factors	Pre - tests		Post - tests		Change %	(T) Test
		Means	SD	Means	SD		
1	Mental imagery	10.4	1.55	12.2	1.97	17.31	Sign
2	Muscular relaxing	9.67	1.29	11.53	2.13	19.23	Sign
3	Attentional focus	7.93	1.33	10.13	1.3	27.74	Sign
4	Anxiety coping	20.07	2.02	15.73	1.94	21.62	Sign
5	Self- confidence	14.07	1.71	15.33	1.49	8.96	Sign
6	Achievement motivation	7.47	1.92	12.07	1.58	61.58	Sign
7	Scale total	69.20	4.29	75.93	5.79	9.08	Sign

Table (4) shows statistically significant differences ($p \leq 0.05$) Between pre- tests and the Post - tests for the control group in all mental scale factors. And the improvement rate between 8.96% to 61.85%.

Table (5) significant differences between the pre- tests and post – tests for the experimental group in physical variables and Skill performance level (n=20)

	Variables	Pre - tests		Post - tests		Change %	(T) Test
		Means	SD	Means	SD		
1	Leg power	24.73	6.32	41.20	8.69	66.88	Sign
2	Arm power	4.88	1.03	9.5	1.52	94.67	Sign
3	Speed	3.16	0.51	2.13	0.41	32.59	Sign
4	Shoulder flexibility	74.93	19.13	48.40	17.22	35.41	Sign
5	Back flexibility	34.33	6.69	50.20	8.01	46.23	No Sign
6	Coordination	2.07	1.22	4.13	1.25	99.52	Sign
7	Muscular endurance	2.53	0.64	5.00	0.85	97.63	Sign
8	Skill performance level	1.37	1.08	6.53	1.51	377.64	Sign

Table (5) shows statistically significant differences ($p \leq 0.05$) Between pre- tests and the Post - tests for the experimental group in all physical variables and Skill performance level . And the improvement rate between 32.59% to 377.64%.

Table (6) significant differences between the pre- tests and post – tests for the experimental group in mental scale factors (n=20)

	Factors	Pre - tests		Post - tests		Change %	(T) Test
		Means	SD	Means	SD		
1	Mental imagery	9.8	1.37	18.67	1.54	90.51	Sign
2	Muscular relaxing	8.93	1.39	15.00	2.8	67.97	Sign
3	Attentional focus	8.73	1.71	16.4	3.85	87.86	Sign
4	Anxiety coping	20.73	0.88	10.27	3.13	50.46	Sign
5	Self- confidence	13.33	1.88	16.67	1.05	25.06	Sign
6	Achievement motivation	7.00	1.65	13.80	2.37	97.14	Sign
7	Scale total	71.2	4.62	88.47	6.05	27.66	Sign

Table (6) shows statistically significant differences ($p \leq 0.05$) Between pre- tests and the Post - tests for the experimental group in all mental scale factors. And the improvement rate between 25.06% to 97.14%.

Table (7) significant differences between the post- tests for the two groups (experimental and control) in Age, Anthropometric - physical variables and Skill performance level (n=40)

	Variables	Control group		Experimental group		(T) Test
		Means	SD	Means	SD	
1	Leg power	35.03	8.23	41.20	8.69	No Sign
2	Arm power	7.15	1.74	9.5	1.52	Sign

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3	Speed	2.49	0.56	2.13	0.41	No Sign
4	Shoulder flexibility	66.27	15.95	48.40	17.22	Sign
5	Back flexibility	39.93	10.45	50.20	8.01	Sign
6	Coordination	3.2	1.01	4.13	1.25	Sign
7	Muscular endurance	3.8	1.26	5.00	0.85	Sign
8	Skill performance level	5.17	1.38	6.53	1.51	Sign

Table (7) shows statistically significant differences (p≤0. 05) Between post- tests for the two groups (experimental and control) in all physical variables and Skill performance level except two variables (Leg power and speed).

Table (8) significant differences between the post- tests for the two groups (experimental and control) in mental scale factors (n=40)

	Factors	Control group		Experimental group		(T) Test
		Means	SD	Means	SD	
1	Mental imagery	12.2	1.97	18.67	1.54	Sign
2	Muscular relaxing	11.53	2.13	15.00	2.8	Sign
3	Attentional focus	10.13	1.3	16.4	3.85	Sign
4	Anxiety coping	15.73	1.94	10.27	3.13	Sign
5	Self- confidence	15.33	1.49	16.67	1.05	Sign
6	Achievement motivation	12.07	1.58	13.80	2.37	Sign
7	Scale total	75.93	5.79	88.47	6.05	Sign

Table (8) shows statistically significant differences (p≤0. 05) Between post- tests for the two groups (experimental and control) in all mental scale factors in the experimental group.

Discussion

According to the results , the researcher attributed these differences that have occurred in the experimental group to expose her to the mental training proposal and incorporates it exercises to relax, and to achieve relaxation had an impact in reducing tension resulting activation the jobs perception mental relevant performance skill as well as develop the ability to predict with greater emphasis and economy of effort These results are consistent with the results of both (Lamirand, & Rainey 1994), (M. Mohamed, 2000), and (Ahmed, & Mamdouh, 2000) of the mental training leads impact positively on the level of the ability to relax and reduce anxiety and access to tension best to help them in the process of training the focus and attention, This results agree with (R. Osama, 1994) that indicated the relax leads to a reduction in the impact of the stress response and help reach a low level of tension to the point of relaxation .The researcher revealed this results and progress, which suffered experimental group to the training program mental proposed to try to improve these dimensional and integrated manner so as to progress the process of mental perception and mental skill Somersault front of the horse jumping to be performed and that's what made clear results experimental group, which had been the training program the actual proposal and agree Results of this research with the results of both (Zakaria, 1996), (Mohamed, 1992) (Robert, et al. 1994)in the mental visualization have a positive impact and effectively in the development of motor skill performance level.And also pointed (Osama, 1995) that the importance of the development of the player to focus attention toward variables associated with performance sports allow the realization of psychic energy optimal that help to create the strength of physical, emotional and mental growth better and can sports to avoid negative thoughts that are a major source of concern.It is clear from the past table there were statistically significant differences between pre and post measurements of the control group in special physical variables and the level of performance of the skill front somersault on the hands on a jumping horse for the post measurement It is clear from above Tables that the rate of change between two measurements pre and post the control group in the psychological variables ranged between (8.96%, 61.58%) Any that the percentage change was weak for the control group and attributed researcher to the impact of the traditional program used with the control group, which lacks inclusiveness and balance between development and mental skills, which have had the greatest impact in the development of the level of performance of front somersault on the hands on a jumping horse, and was lacking this group of self-confidence and Ointabhm anxiety and tension, which is reflected in the level of performance compared to the experimental group**.**And consistent results of this study with the study of (Zakaria, 1996) (Salahuddin, 1997) (Iman, 2000), (Ahmed,. Mamdouh, 2000), (Mohamed, 2000), (Fatima, Zeinab 2005) has indicated the results of these Studies for the effectiveness of mental training program to develop the skill level of performance which could lead to improved results to perform kidney player in the training process**.**These results are in with what Mohammed Allawi that training relaxing is one of the successful means to adjust and modify the physical and psychological player which leads with the players who are characterized by varying high or low tension to the possibility to influence the level of Tencithm and equip them with tension optimized for each of them .

(Shamon, 1996).The results of this study agree with the results of the study both Samerzuelkz Summers, quirks that the mental training program works to develop the level of performance of the gymnasts (Martin, & Hall, 1995) **,**and the study (Nahed, 1997) in that mental training is effective for improving the ability to focus attention and the ability to relax and develop and improve the skills of your land movements and this is achieved hypothesis II, which stipulates that statistically significant differences between the experimental and control groups in the measurement dimensional Mental Skills (muscle relaxation - mental visualization - focused attention - the ability to cope with anxiety - self-confidence - achievement motivation) and the level of performance (Skill front somersault on the hands on a horse jumping)

Conclusion

Finally, 4 mental training sessions for 10 weeks, resulted an increased of Psychological Skills and Success in the Vault Table.

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