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The effects of high-intensity physical exercise on the achievement of a 1,500-meter man running competition, maximal heart rate, and the development of personal tolerance

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Abstract:

Creating high-density workouts and determining how they affect the development of specific tolerance, maximum heart rate, and success in the 1,500-meter man run competition are the goals of the research. Therefore, the development of high-density physical exercises that arise during the run-off as a consequence of ongoing training and the utilization of exercise quality that satisfies the requirements of the 1,500-meter run-off competition are the primary goals of the research. Research is beset by a shortcoming in the competition's ability to achieve its unique tolerance and accomplishment skills, The 1,500-meter race amongst the elite men of the Iraqi Union of Forces for the Open Ages over 20 years of the 2023 sports season has been designated for the research community. The sample was split up by the 12 players into the six players, the command group, and the two pilot groups. The researchers came to the conclusion that men's 1,500-meter run competition achievement, maximum heart rate, and the development of special tolerance were all positively impacted by high-density physical training. In order to establish a unique tolerance for other competitions, the researchers advised high-density physical training. They also suggested conducting similar experiments and research in various age groups.

Keywords: High-density drills, your tolerance, 1,500 meters contest.

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Introduction

A significant amount of work is put in by training personnel to prepare athletes for all sports and sporting events and to achieve sports results. (Muwafaqobayeskhudhair, 2024) To obtain, recruit, and translate the vast quantity of theoretical knowledge in the field of training and other allied sciences into sports training fields, tremendous efforts must be made. A lot of thought goes into increasing the quantitative level of training loads during the planning phase of the training process, (NaseemJoudah, 2024) so that training takes up a significant amount of daily time. The goal of training pregnancy is to control the amount of activity, (ZidaneHmmood et al., 2024)whether it is in terms of frequency, duration, or intensity. Athletes' physical modifications brought about by further training and the application of high-quality workouts that meet the demands of force games activities and cover all of the components and roles of the hostile body,(MANDOOBMAKKIATI & ABED, 2024) Trainers must cultivate a unique tolerance and modify the maximum heart rate of hostility when working in a pulse, specifically for the 1,500-meter competition with unique physical features (170 p. 180 p.d.), The issue with research is that there is a weakness in the achievement of exceptional tolerance and achievement in this competition, despite the fact that achievement is one of the primary goals of the training process, (Hammood et al., 2024) to which both the player and the trainer are entitled. In order to develop the components of achievement, the researchers believed that contemporary training methods based on real experiments should be implemented. These workouts are designed to provide a high training density and to determine how the exercises affect the development of specific tolerance, maximum heart rate, and the ability to complete a 1,500-meter man-running competition.(Kadhim, 2024) and (Ahmed Fadhil Farhan Mohammed Jawad Kadhim, 2016)

A study conducted by Hamza Mohamed in 2004 was one of several that looked at the development of a training curriculum utilizing iron exercises and three intensity levels in the development of special tolerance, tolerance, and some aromatic variables. It also sought to determine the effects of this curriculum on the development of special tolerance, (Abdulhussein et al., 2024)tolerance, and some aromatic variables. The research community deliberately opted to be unfriendly (1500 m) to the 12 candidates who represented the community of origin as a whole in order to accomplish the study's goals while utilizing the pilot methodology. The study conducted by Zainab Johnny Cootie (2008) sought to determine the effects of these exercises on the rate of recovery on the pulse marker of the special speed tolerance as well as the completion of a 1,500-meter run. It also prepared the delivery of tranquilizers in accordance with the rigors of the curriculum.(Y. F. Mohsen et al., 2024)

Representing the 8-year-old Power Toys Federation training facility, the research community stands in for two adversaries of the 14-year-old group.
As a result, the value of research is illustrated by the creation of hostile high-density physical activities as a result of further training and the use of a high-quality exercise appropriate for a 1,500-meter running competition.

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Method and tools

To best fit the needs of the study, the researchers employed an experimental pilot design with two equal groups: experience and officer. In the 2023 sports season, the research community was determined to be the elite men's 1,500-meter competitor over 20 years of age in the Iraqi Federation of Open Ages Power Games. A command group, two pilot groups, and six participants per group were assigned to the sample. As indicated by Table 1, the investigators homogenized the specimen. (Salih et al., 2024)

Table (1) homogeneity of the individual research sample

Contamination coefficient	Standard deviation	Mediator	The math center.	Unit of measure	Variables
0.214	**1.654**	**172.000**	**174.211**	Meter	Longitude
0.123	**1.334**	**74.000**	**74.245**	**kg**	**Mass**
0.339	**1.489**	**26.000**	**26.112**	**year**	Age

The convalescence coefficient has a maximum value of ± three, signifying a moderate social distribution.

The researchers also extracted the parity between the two groups, as shown in table 2.

Variables	pilot squad		The commanding group.		The calculated value of t	The degree of error	Statistical significance
	S	**A**	**S**	**A**			
The force carried a 200-metre jump.	38.123	1.865	39.001	2.863	1.453	0.345	Non-D
Run 1,000 meters at that velocity.	2.33.54	2.634	2.34.65	3.562	1.934	0.786	Non-D
Run 1,000 meters at that velocity.	177.32	2.721	178.32	2.741	2.432	1.876	Non-D
1,500 meters.	3.55.01	6.334	3.56.00	2.457	0.459	0.434	Non-D

D below sign level 0.05 and below 10 degrees of freedom

For study variables, a group of professional teachers and coaches at the Power Games have been consulted and the special tolerance tests for the 1,500-meter competition have been identified as follows:

- The force carried a 200-metre jump.2023 Rana FM Al-Dulaimi, Faheem Abdul Wahid Easa

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- Take the velocity 1,000 meters running, Ali, A. N., Easa, F. A. W., & AbdulRida, B. K. (2020)

The heart rate of Easa, F. A. W., Shihab, G. M., & Kadhim, M. J. (2022).
Achievement 1500 meter Fahem Abdul Wahid Easa. (2021))

These examinations were conducted on Saturday, July 10, 2023, at the Ministry of Youth and Sports' dedicated school stadium for talent in the governorate of Baghdad.(A. S. Mohsen et al., 2024)

• The sample began training on Tuesday 10/10/2023 through 9/12/2023.
• Duration of the training programme: 8 weeks.
.Number of total training modules: (24) Training modules.

. • Number of weekly training modules: (3)

. • Weekly training days: Sunday, Tuesday, Thursday.

• Training method used: high-stress oral training. And the redemption.
. • Training intensity used: (80 100%)

These examinations were conducted on Saturday, July 10, 2023, at the Ministry of Youth and Sports' dedicated school stadium for talent in the governorate of Baghdad.

Research-related statistical instruments: The statistical bag (SPSS) was utilized by the investigators to identify relevant statistical treatments.

Results

Presentation and analysis of the findings pertaining to the variations in the factors under examination between the two research groups (pilots and officers)

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Table (3)

presents the findings of the pilot group's tribal and remote testing in study factors and analyzes and discusses them.

Physical variables	The tribal test.		The dimensional test.		A F	The calculated value of t	The degree of error	Statistical significance
	S	A	S	A				
Hold the power. He ran about 200 meters.	38.123	0.498	37.144	1.545	1.878	3.822	0.002	D
Accept the speed. completed a 1,000-meter run.	2.33.54	1.867	2.32.11	2.872	2.534	4.734	0.001	D
Heart rate.	177.32	2.443	176.21	3.532	3.543	4.187	0.001	D
supplying 1,500 meters.	3.55.01	4.623	3.54.00	0.467	0.791	8.465	0.004	D

D below a sign level of 0.05 and below a degree of freedom of 5

Results of tribal and remote tests of variables are presented, analyzed, and discussed in the commanding group.

Table (4)

The search variables display the outcomes of the controlled group's tribal and remote tests.

Statistical significance	The degree of error	The calculated value of t	A F	The dimensional test.		The tribal test.		Physical variables
				A	S	A	S	
D	0.004	4.889	1.984	0.387	38.021	1.390	39.001	The force carried a 200-metre
دال	0.001	7.367	1.593	1.743	2.33.11	2.256	2.34.65	Take the speed. ran 1,000 meters.
دال	0.002	6.719	2.464	4.387	177.12	3.862	178.32	Heart rate.
دال	0.000	8.776	0.291	0.482	3.55.11	0.383	3.56.00	**Achievement 1500 meters**

D below a sign level of 0.05 and below a degree of freedom of 5

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The findings of dimensional tests in the research variables of the control and experimental groups are presented, analyzed, and discussed.

Table (5)
Shows the results of the dimensional tests in the search variables of the control and experimental groups.

Statistical significance	Level of error	The calculated value of t	The commanding group.		Pilot group		Physical variables
			A	**S**	**A**	**S**	
D	0.001	3.723	0.379	37.022	1.698	36.112	Hold the power, ran about 200 meters.
D	0.002	6.356	1.822	2.32.10	0.815	2.30.12	Take the speed, ran 1,000 meters.
D	0.004	7.873	2.498	176.00	1.576	174.11	Heart rate.
D	0.002	8.481	0.621	3.54.04	0.187	3.53.11	**Achievement 1500 meters**

D is below 10 degrees of freedom and below sign level 0.05.

Discussion of the outcome:

The findings of the research-sampling variables' tribal and remote tests are displayed in Tables 5, 4-3. The results indicate that there are moral variations in both groups' interests and the dimensional test. The training approach, which is focused on high-density physical training in the development of specific tolerance, is attributed by the researchers as the cause of these variations, (Abdalah & SalehRadhiAmesh, 2024) The importance of codifying the training load used to match the level of the players indicates the evolution of the performance of this group in the muscle combinations that have been subject to the two men's jumping exercises,(Al-Bakri & YasirWajeehQaddoori, 2024) which have been reflected in the performance of the maximum force and for the shortest possible period of time (Mohamed, A). F. ., & Al-Shabaab, H. F. (2021), the more efficient the muscles are, the less time they can be, the more power these muscles can be, the more the members of this group regularly train the force that has had a significant direct impact on the muscles of the two men (Hamid Saleh, 2008), and the researchers believe that the means of training that carry the force of the experimental group have increased the level of achievement of my enemy by 1,500 meters, According to Wilmore J.H. and Costfl D. (1994), the low rate of pulse during rest is the outcome of specific load training. A strong mid-pulse competitor needs unique physical attributes. (Bdulkarim, 2024) Based on this, the training throughout the preparatory phase will concentrate on specific tolerance exercises while keeping the heart rate adjusted to support optimal performance. Ease, F. A. (2022)

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- Conclusions

-The findings have demonstrated a clear benefit between the tribal and distant measurement of high-density physical training in relation to the steady rise in pregnancy in terms of the experimental group's development of a unique tolerance and telemetry's interest.

-The findings demonstrated a clear benefit between the tribal and the telemetry of high-density physical exercise based on the progressive increase in pregnancy to establish the attainment of 1,500 meters for both the telemetry and the experimental group.
- Focus on high-intensity physical training in line with the rise in pregnancy with the purpose of developing individual tolerance and achieving the 1,500-meter competition participant

-Similar investigations and studies should be carried out across age ranges.

Utilized training module

Run drills first, then force drills.	Totals	Minute break at pulse rate.	Repetition	Stress %	Distance	Module for training	Week	N.
completed a 100-meter run.	2	The pulse has returned to its usual level. 120 N.D	5	80	150M	1	First	1
	2		4	80	300M	2		
			3	85	500	3		
ten times jumping off ten barricades	2	The pulse has returned to its usual level. 120 N.D	4	85	400M	1	Second	2
	1		4	85	1200M	2		
	2		3	80	600M	3		
covered 200 meters in run by jumping	2	The pulse has returned to its usual level. 120 N.D	4	85	150M	1	Third	3
	1		4	80	1500M	2		
	2		5	90	300M	3		

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