

**142 - EFFECT OF A HYDROGINASTIC PROGRAM IN 12 WEEKS AT THE STRENGTH LEVEL OF THE POLICIES 3º BATTALION OF THE CITY OF POMBAL-PB**

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**1. INTRODUCTION**

In Brazil, one of the social problems we face is violence, something that can be clearly observed day by day. On a daily basis, the news media report more and more frequent cases. In this context, there is the military police professional, who has among many of his duties to combat crime and ensure public safety, many of these professionals, when entering the career, are attracted by the status of the profession, by the possibility of ascension and "security" of the public tender, but, over time, they face, among other aspects, the lack of recognition, the perception of risk and real risk, the losses of colleagues and the mental suffering repressed by the corporation (DANTAS et al. 2010).

In the exercise of their function, since stress can affect the activity of such professionals, and the consequences of the behavior of a police officer with stress are directly linked to public safety. Stress is defined as a state of tension that causes a rupture in the internal balance of the organism (LIPP, 2015).

When stress occurs, the balance (homeostasis) is broken, and there is no more entanglement between the various organs of the body. Some organs need to work harder and some less to deal with the problem, causing the initial stress. Since, by nature, the organism has the impulse to seek balance, an effort is automatically made to restore internal homeostasis. When it manages to reestablish the inner order, the stress is eliminated, and the organism recovers and returns to its normal state. A return to balance may occur either by terminating the source of stress or by learning to deal with it properly even in its presence. However, the organism does not always return to equilibrium (LIPP, 2015)

The practice of physical activity when performed regularly becomes the way to promote health and quality of life. Physical activity has shown its importance in the combat, prevention and maintenance of the quality of life of the individual, and can be practiced in several ways, such as walking, running, resistance exercises, among others (MAZO, CARDOSO, AGUIAR, 2006).

Water aerobics is a physical exercise considered enjoyable by its practitioners and has many attractions for them being a very safe activity in relation to others, as it does not cause risks or injuries to the joints, providing a physical and mental well being, being also a program ideal for maintaining physical fitness, working with aerobic exercises and other exercises that can develop flexibility, muscular strength and endurance (TEIXEIRA; PEREIRA; ROSSI, 2007).

Considering that the adequate level of physical conditioning is an important factor in enabling the military to develop their work more efficiently, agility and thus benefiting the community to have more public safety. This study asks: Does 12-week water aerobics have an effect on the level of stress of the military police officers of the 3rd Pombal Police Battalion?

In order to contribute significantly, the present study has the general objective of analyzing the effect of a hydrogymnastics program in the pre and post stress level of the military police of the 3rd Police Battalion of the city of Pombal-PB, and as specific objectives, to identify the pre and post stress level of the police of the city of Pombal-PB and to compare the level of pre- and post-stress of the policemen of the 3rd police battalion of the city of Pombal-PB.

**METODOLOGIA**

This is a quasi-experimental study with a longitudinal character, in which we attempt to establish the cause and effect relationships between the dependent and independent variables, so that if we can understand the interactions between the variables.

The population was formed by military police of the 3rd police company of Paraiba of the city of Pombal. The sample consisted of 17 male and female police officers, with ages ranging from 25 to 45 years.

Male and female volunteer participation, being part of the 3rd policing company of the city of Pombal, will be excluded the police of the company of Pombal that does not obtain a frequency of 75% of the activities are of medical certificate and did not sign the TCLE.

Evaluation was done through a questionnaire that verified the level of police stress, Lipp's Adult Stress Symptom Inventory (ISSL), which evaluated police pre and post, as well as their level of stress by means of a model of 3 phases, called alertness, resistance, exhaustion and, indicating the predominance of physical or psychological symptoms, or both.

The collected data will be tabulated through the program Microsoft Office Excel 2007 transported to the program SPSS, version 21.0. The procedures of descriptive statistics (percentage) and Paired Test will be used to verify the level of stress of the police using the questionnaire.

The water aerobics program was held at the AABB swimming pool in the city of Pombal for 12 weeks.

The research was approved by the Research Ethics Committee of the Faculdades Integradas de Patos, with a total of 1,688,193 (CAAE: 588791116.4.000.5181), all the volunteers signed a free and informed consent form - TCLE drafted for this purpose, agreeing to participate in the research. Orienting and guiding will sign a term of research commitment - TCP as an ethical requirement for this study. This research followed the precepts of Resolution No. 466/12 of the National Health Council.

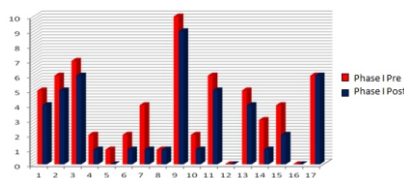
**RESULTS AND DISCUSSION**

The sample consisted of 17 male and female police officers of the 3rd police company of the city of Pombal-PB, 17 of the sample being present, with a mean age of 40.43 ± 3.38 in 12 weeks of water aerobics. a significant result, in the level of stress of the Pombal-PB city police officers.

Table 1. Comparison of Phase I Alert (alarm) of water polo practitioners.

Stay Null	Test	Sig.	Decisio
The mean of the difference between Phase I Pre and Post Practicals Group.	Testing paired samples	< 0,0001	Reject the null hypothesis

Asymptotic meanings are displayed. The level of significance of (P < 0.05)



At this stage of alertness, stress develops, because people need to generate greater force than normal to perform their activities, causing hormonal changes. It is the phase of contact with the source of stress, with its typical sensations in which the organism loses its balance and prepares itself to face the established situation due to its adaptation, fundamental sensations for the survival of the individual (LIPP, 2011).

Rossetti et al. (2008) in a study carried out with the São Paulo police with the same objective to verify the level of stress, in this phase of (alert) the result of police without stress or with little verified were about 61.6% of Police of São Paulo did not present stress, this number is due to several police officers who received positions of trust.

Lipp (2016) in a study carried out with mato grosso police officers, analyzing the institutions, it was concluded that 52% of the patients presented significant symptoms of stress in the (alert) phase, which significantly surpasses the country average, which is 35%.

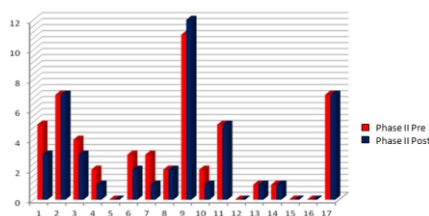
Oliveira (2015) carried out a research that had the objective of evaluating the stress symptomatology in military police in the interior of Rondônia, where the lipp questionnaire was used to measure the level of police stress, where in the first phase of (alert) , did not present enough symptoms for the diagnosis of stress, but 51.5% (n = 17) presented symptoms of stress.

This study collaborates with ours, showing that in this phase of alert I, with the exception of the last study, the police that were submitted to the evaluation gave a significant result in relation to the stress level collaborating with this study as shown in table 1

Table 2. Comparison of Phase II Resistance (struggle) of practicing water aerobics officers.

Stay Null	Test	Sig.	Decision
The mean difference between Phase II of the Pre and Post Practitioner Group.	Testing paired samples	< 0,0486	Reject the null hypothesis

Asymptotic meanings are displayed. The level of significance of (P <0.05)



Rossetti et al. (2008), in a study carried out with police officers from Mato Grosso, shows that in the second phase II of the test in which the police were submitted showed enough symptoms to characterize stress, all in the resistance phase, 90.1% of the participants with stress, in this stage the cops are in the adaptation period and the energy has to be double taking them to a stress level.

Lipp (2016) found that 75.5% were in the intermediate phase (resistance), and that according to the test result, significance was found in the study in relation to police stress.

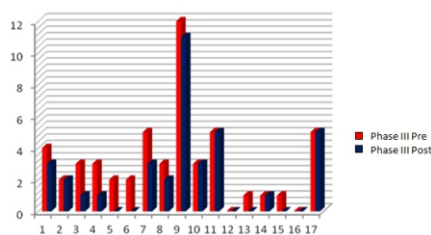
Oliveira (2015) in a study carried out with military police in the interior of Rondônia shows that in the resistance phase II, where the highest incidence of stress was detected in police officers, women were found in a percentage of 36.4% (n = 12) and males 63.6% (n = 21).

In this phase II study, police officers of the Pombal police company with the exception of 7 had a significant result because in this phase, the intermediate phase in which the organism seeks the return to equilibrium. It presents itself exhausting, forgetful, tiring and doubtful. It may occur at this stage to the adaptation or elimination of stressors and consequent rebalancing and harmony or to progress to the next phase as a result of non-adaptation and / or elimination of the source of stress (LIPP, 2011)

Table 3. Comparison of Phase III Resistance (struggle) of practicing water aerobics officers.

Stay Null	Test	Sig.	Decision
The mean difference between Phase III of the Pre and Post Practitioner Group.	Testing paired samples	< 0,0006	Reject the null hypothesis

Asymptotic meanings are displayed. The level of significance of (P <0.05)



A study carried out with police officers from Mato Grosso using the lipp questionnaire showed that a significant result was also obtained, the police underwent a training where 9.5% were in the most serious and compromising, which is an exhaustion phase, there was a significant difference between the institutions regarding the distribution of police officers per phase of stress p = 0.002 (ROSSETTI et al., 2008).

A study was carried out with police officers from São Paulo where the result in the phase III of exhaustion indicated that 9.9% of the volunteers of the survey the policemen of this state of São Paulo were in the phase of almost exhaustion, measures that may prevent the aggravation of stress, since it is becoming pathological (LIPP, 2016).

In the exhaustion phase, the female predominance was observed with 66.6% (n = 22) and the men 33.3% (n = 11), according to Lipp's questionnaire (OLIVEIRA, 2015).

This study observes that the other studies have contributed to our work, knowing that in this "critical and dangerous" phase, a kind of return to the first phase occurs, however aggravated and with physical compromises in the form of diseases.

The graphic above phase III shows clearly that there was a significant result, showing that the hydrogymnastics troupe in 12 semas improvements in the level of stress of the police of the 3rd police company of Pombal-PB.

#### FINAL CONSIDERATIONS

This research made it possible to verify that the military policemen participating in this study have in relation to the subject stress, as a consequence of the work carried out by them. Some factors suffered in the internal and external environment of the work, due to the responsibility that must be had professionally, added to the dangers of expositions to the situations that involve damage to health, life and to the common good, can provoke evils to the health of the policemen that even seeking to maintain a normal life outside the work environment, end up bringing with them symptoms related to stress. Many times the behavior change is only perceived by third parties.

It was possible to verify in this study that the regular practice of hydrogymnastics is a viable strategy for the reduction in stress levels in military police, where the evaluations carried out confirm the reduction in the three levels of the questionnaire.

The need to become aware of the need for action that can promote the reduction of stress levels in the police and is the responsibility of all involved, so that both take initiatives that provide a better working environment and promote individual and collective actions for a lifetime healthier and with more quality.

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#### EFFECT OF A HYDROGINASTIC PROGRAM IN 12 WEEKS AT THE STRENGTH LEVEL OF THE POLICIES 3<sup>o</sup> BATTALION OF THE CITY OF POMBAL-PB

Studies show that the stress on Police officers increase the likelihood of diseases development potentialized by the way the police works, lack of physical exercise and tiredness. Objective To verify the influence of a 12-week hydrogymnastics program, pre- and post-, in the stress level of military policemen of the third police company of Pombal – PB and Method: 30 male and female police officers aged between 22 to 49 years who underwent a 12-week hydrogymnastics program. Statistical analysis: of the pre-experimental comparative type of longitudinal character. It seeks to establish the cause and effect relation on the depended variable and the paired sample test were used. It was possible to observe significant changes on phase (p < 0.0001), on phase II (P < 0,0486) and on phase (p < 0,0006) on the studied variable, for the pre- and post- activity moments the practice of hydrogymnastics. Conclusion: the present study allows to conclude that hydrogymnastics is a viable and fundamental strategy for the reduction of stress.

KEY-WORDS: Stress; Hydrogymnastics; Police Officers.

**EFEITO DE UM PROGRAMA DE HIDROGINÁSTICA EM 12 SEMANAS NO NÍVEL DE ESTRESSE DOS POLICIAIS 3º BATALHÃO DA CIDADE DE POMBAL-PB**

Estudos mostram que o estresse em policiais aumenta a probabilidade do desenvolvimento de doenças, potencializado pela forma de trabalho dos policiais, falta de exercício físico e cansaço. Objetivo Verificar a influência de um programa de 12 semanas de hidroginástica pre e pós no nível de stress de policiais militares da 3ª companhia de polícia de Pombal-PB, Método: 30 policiais do sexo masculino e feminino com faixa etária de 22 a 49 anos que foram submetidas a um programa de 12 semanas de hidroginástica Análise estatístico: do tipo pré-experimental comparativo de caráter longitudinal. Nele busca estabelecer a relação de causa e efeito sobre a variável dependente e foram usados os testes de amostra emparelhadas Resultados: Foi possível observar alterações significativas na fase I ( $p < 0,0001$ ), na fase II ( $p < 0,0486$ ) e na fase III ( $p < 0,0006$ ) sobre a variável estudada, para os momentos pre e pós a prática da hidroginástica. Conclusão: O presente estudo permite concluir que a hidroginástica uma estratégia viável e fundamental para a redução do estresse.

Palavras Chave: estresse. Hidroginástica. Policiais.

**EFEITO DE UN PROGRAMA DE HIDROGINÁSTICA EN 12 SEMANAS EN EL NIVEL DE ESTRÉS DE LOS POLICIALES 3º BATALHÓN DE LA CIUDAD DE POMBAL-PB**

Los estudios muestran que el estrés en la policía aumenta la probabilidad del desarrollo de enfermedades, potenciado por la forma de trabajo de los policías, falta de ejercicio físico y cansancio. Objetivo Comprobar la influencia de un programa de 12 semanas de hidroginástica pre y post en el nivel de estrés de policías militares de la 3ª compañía de policía de Pombal-PB, Método: 30 policías del sexo masculino y femenino con franja de edad de 22 a 49 años de edad fueron sometidas a un programa de 12 semanas de hidroginástica Análisis estadístico: del tipo pre-experimental comparativo de carácter longitudinal. En la fase I ( $p < 0,0486$ ), en la fase II ( $p < 0,0486$ ) y en la fase III ( $p < 0,0486$ ), se observaron cambios significativos en la fase I ( $p < 0,0001$ ) ( $p < 0,0006$ ) sobre la variable estudiada, para los momentos pre y post la práctica de la hidroginástica. Conclusión: El presente estudio permite concluir que la hidroginástica es una estrategia viable y fundamental para la reducción del estresse.

Palabras clave: estrés. Hidroginástica. Policias.

**EFFET D'UN PROGRAMME HYDROGINASTIQUE EN 12 SEMAINES AU NIVEAU DE FORCE DES POLITIQUES 3e BATAILLON DE LA VILLE DE POMBAL-PB**

Des études montrent que le stress de la police augmente la probabilité de développement de la maladie, stimulée par le travail de la police, le manque d'exercice physique et la fatigue. Objectif Vérifier l'influence d'un programme de 12 semaines sur l'état de stress des agents de police militaire de la 3e compagnie de police Pombal-PB, Méthode: 30 policiers hommes et femmes âgés de 22 à 49 ans ont été soumis à un programme hydrogymnastique de 12 semaines. Analyse statistique: type longitudinal pré-experimental comparatif. Résultats: Il a été possible d'observer des changements significatifs dans la phase I ( $p < 0,0001$ ), la phase II ( $p < 0,0486$ ) et dans la phase III ( $p < 0,0006$ ) sur la variable étudiée, pour les moments avant et après la pratique de la gymnastique aquatique. Conclusion: La présente étude permet de conclure que l'hydrogymnastique est une stratégie viable et fondamentale pour la réduction du stress.

Mots-clés: stress. Hydrogymnastique. Cops.



