

THE PRACTICE OF HYDROGYMNASTICS AS A TOOL FOR PROMOTING CARDIOVASCULAR HEALTH

A PRÁTICA DA HIDROGINÁSTICA COMO FERRAMENTA DE PROMOÇÃO DA SAÚDE CARDIOVASCULAR

LA PRÁCTICA DE LA HIDROGIMNASIA COMO HERRAMIENTA PARA PROMOVER LA SALUD CARDIOVASCULAR

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ABSTRACT

To describe the practice of hydrogymnastics as a tool to promote cardiovascular health. Experience report on the project that emerged in December 2021. The practice is carried out by women, on the Jaguaribe River, in Tabuleiro do Norte, twice a week, starting at 4:30 am, covering 60 students, lasting 45 minutes. Exercise intensity is prescribed using the Borg Perceived Exertion Scale (6-20). Among the benefits of the activity for the participants, one can mention the improvement in blood circulation and cardiorespiratory capacity, increased flexibility, relaxation, muscle toning, increased physical resistance, blood pressure regulation and weight control. The project brought the opportunity for a community with social vulnerability to perform physical activity, with monitoring by a qualified professional, located close to their homes. It involves minimal costs, the strong point being social mobilization.

Descriptors: *Health Promotion; Physical Exercise; Public Health.*

RESUMO

Descrever a prática da hidroginástica como ferramenta de promoção da saúde cardiovascular. Relato de experiência sobre o projeto que surgiu em dezembro de 2021. A prática é realizada por mulheres, no rio Jaguaribe, em Tabuleiro do Norte, duas vezes por semana, tendo início às 04h30, contemplando 60 alunas, com duração de 45 minutos. A intensidade dos exercícios é prescrita por meio da Escala de Percepção de Esforço de Borg (6-20). Dentre os benefícios da atividade para as participantes, pode-se citar a melhoria na circulação do sangue e da capacidade cardiorrespiratória, aumento da flexibilidade, relaxamento, tonificação muscular, aumento da resistência física, regulação da pressão arterial e controle do peso. O projeto trouxe a oportunidade para uma comunidade com vulnerabilidade social realizar atividade física, com acompanhamento profissional qualificado, localizado nas proximidades das suas casas. Envolve custos mínimos, sendo o ponto forte a mobilização social.


Descritores: *Promoção da Saúde; Exercício Físico; Saúde Pública.*


RESUMEN


Describir la práctica de la hidrogimnasia como herramienta para promover la salud cardiovascular. Informe de experiencia sobre el proyecto que surgió en diciembre de 2021. La práctica es realizada por mujeres, en el río Jaguaribe, en Tabuleiro do Norte, dos veces por semana, a partir de las 4:30 am, abarcando 60 alumnos, con una duración de 45 minutos. La intensidad del ejercicio se prescribe utilizando la escala de esfuerzo percibido de Borg (6-20). Entre los beneficios de la actividad para los participantes, se puede mencionar la mejora de la circulación sanguínea y la capacidad cardiorrespiratoria, aumento de la flexibilidad, relajación, tonificación muscular, aumento de la resistencia física, regulación de la presión arterial y control del peso. El proyecto trajo la oportunidad a una comunidad en vulnerabilidad social de realizar actividad física, con acompañamiento de un profesional calificado, ubicado cerca de sus domicilios. Implica costos mínimos, siendo el punto fuerte la movilización social.


Descritores: *Promoción de la Salud; Ejercicio Físico; Salud Pública.*


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INTRODUCTION

Cardiovascular diseases (CVD) occupy the first place in mortality in the world and are responsible for 17.9 million deaths annually. Of these, more than three-quarters occurred in low- and middle-income countries¹. The high prevalence may be related to the various risk factors associated with this disease, which may be non-modifiable (age, gender and ethnicity) and modifiable (overweight, excess salt and alcohol intake, sedentary lifestyle, smoking, obstructive sleep apnea/hypopnea syndrome and stress).

The modifiable risk factors should be investigated in order to know which of them have more relevance in the different populations, enabling interventions to modify the lifestyle of individuals². A sedentary lifestyle and hypertension are important and modifiable risk factors for cardiovascular disease and mortality. The practice of physical activity contributes to health promotion actions, which improve the quality of life, reduce the presence of depressive symptoms and help in the control of blood pressure³.

Evidence accumulated in recent years shows that non-pharmacological conducts, such as the adoption of physical exercise programs and adequate nutrition, constitute to combat hypertension mild to moderate initial strategies. They are actions of low cost and minimal risk, capable of contributing to the regulation of blood pressure, treatment of dyslipidemias and obesity⁴. Thus, water aerobics has been evidenced as one of the physical activities in strong growth for primary health prevention.

Faced with a context of women, residents of a riverside community in the municipality of Tabuleiro do Norte, who were interested in performing physical activity, however, due to the low financial condition, and lack of appropriate space, the initiative arose to use the space of the Jaguaribe River by the professional physical educator of the Multidisciplinary Team to Support the Family Health Strategy.

Tabuleiro do Norte is a municipality located in the Brazilian state of Ceará, on the border with Rio Grande do Norte, more specifically in the Mesoregion of Jaguaribe, in the Microregion of Baixo Jaguaribe, in the Jaguaribe Valley, 211 km from the capital of Ceará, Fortaleza-CE, and 115 km from Mossoró-RN. Its population, according to IBGE estimates of 2021, was 32,079 inhabitants.

The present experience aims to describe the practice of water aerobics as a tool to promote cardiovascular health.

METHODS

This is a descriptive study, of the type experience report, carried out in the period of March 2023, describing the practice of water aerobics performed by women, in the Jaguaribe River, in the city of Tabuleiro do Norte. The practice began in 2021 and the activity takes place twice a week, starting at 4:30 a.m., contemplating 60 students, lasting 45 minutes. The routine of the classes includes: warm-up, main part, in which the exercises are performed, and stretches.

The initiative came about through social support visits in the community, where women were recruited. All those who expressed interest were able to participate. There were no exclusion criteria. The only caveat is that people with reduced mobility should have a companion during the entire period of the activity.

The exercises are performed in such a way that the participants take advantage of the resistance of the water as overload, for a better physical result. The material used, in the beginning, was adapted with plastic bottles of 2l. The intensity of the exercises is prescribed through the Borg Effort Perception Scale (5). This scale is composed of numbers from 6 to 20 and verbal descriptors ranging from "no effort" to "maximum effort". The teacher commands verbally throughout the class. As a data collection instrument, a logbook was used, in which all the activities performed are recorded, as well as through individual medical records, the evolution of each participant was recorded.

RESULTS

Women aged 25 to 65 years, with and without associated comorbidities, participate in the activities. At the beginning of 2023, a clinical evaluation was carried out in 40 participants who are part of the

hydrogymnastics group, and risk related to the development of cardiovascular diseases were verified. Of the 40 active participants in the aquatic activity, 31 women had a waist circumference greater than 88cm, thus totaling a percentage of 77% of the public at increased risk for cardiovascular diseases. 45% of the women evaluated have hypertension and use medication.

Only 27.5% underwent biochemical tests of the lipid profile in the last 6 months, of this percentage 45% revealed changes in total cholesterol, 60% with high LDL and 60% with HDL below ideal, 40% also presented changes with elevations in the rate of triglycerides and 40% reported using some medication of the pharmacological class statins, drugs of choice to reduce cholesterol and triglyceride levels. New evaluations will be carried out every six months to verify the evolution of the patients' parameters.

Among the benefits of the activity for the participants, he mentions-if the aid in best circulation improves blood cardiorespiratory capacity, improves flexibility, relaxation, helps tone muscles, increased physical endurance, in addition to regulating blood pressure and helping to control weight. According to the patients' reports, it was evidenced that there was a significant improvement in the willingness to perform activities of daily living, improved sleep, greater flexibility, muscle strengthening, in addition to rehabilitation for those who have sequelae of stroke. It was also highlighted by the participants as a benefit the social conviviality, because soon after the participants gather for breakfast. Mutual cooperation is a very positive point, since the participants themselves bring food for a shared breakfast, with fruits planted in their homes.

The project also has the participation of the other members of the multidisciplinary team, being 1 psychologist, 1 nutritionist and 1 social worker who perform moments of health education. Through the initiative of taking professionals to the locality and use of the natural space itself, the principle of equity of the Unified Health System is applied, which consists of providing more access to those who have less. The project consists of a relatively simple experiment, easily replicable in other riverside areas. This involves minimal costs, the strong point being social mobilization.

DISCUSSION

In view of the results obtained we can emphasize that the group of women who participate in the activity of water aerobics has a high risk for the development of cardiovascular diseases, because 77% are with the abdominal circumference greater than 88cm which is considered as an indicator of the fat content associated between the organs of the region and is associated with total body fat⁶.

Water aerobics has been shown to be an excellent activity in the liquid environment, because it uses the properties of water to promote physical conditioning, prevent damage to health and for rehabilitation. Due to the properties of water, exercises performed in this environment have reduced joint impact compared to the terrestrial environment, as well as lower heart rate and blood pressure behavior. In addition, this modality does not require any specific skills. Therefore, the practice of water aerobics is indicated for people of all ages and in many clinical conditions⁷.

Water aerobics can provide control of the main risk factors for the emergence of diseases of the cardiovascular system. A study done in São Paulo⁸ showed that the activity of water aerobics also reduces total cholesterol by 10%, as well as total cholesterol. Water aerobics also brought improvement for other parameters, such as a 13 to 15% reduction in triglycerides, a 16% reduction in LDL, and a 7 to 16% increase in HDL.

Corroborating with the findings of this experience, a study conducted in Horizonte-CE, which performed water aerobics practices with patients of the Psychosocial Care Center, evidenced that the patients presented improvement in sleep, socialization and even demedicalization⁹, reinforcing the understanding that the benefits of the cardiovascular Aerobics aspect outweigh the cardiovascular aspect.

The Promotion of Health is closely linked to quality of life, the population's search for better living conditions and health. According to the World Health Organization (WHO), health promotion is understood

as a process whose purpose is to maximize the possibilities of individuals and communities to act on factors that affect their health and quality of life, with greater participation in the control of this process"¹.

Thus, body practices, including water aerobics, have been growing within collective health, applied in the Family Health Strategy, aiming to provide improvements in the living conditions of the community, in order to mitigate the factors of health degradation.

CONCLUSION

The use of the natural resource available in the municipality contributed to overcome the limitation of the lack of adequate space for the performance of physical activity, has than been considered an innovative practice and has win each more adherents. Among the difficulties, we can mention the limitation of resources to perform differentiated activities, however, with the use of PET bottles, a sequence of activities became possible. The initiative is a very challenging practice, but at the same time potent, since its gains have extended beyond the cardiovascular benefits, since the affective bonds of the community members have been strengthened, and has even served as a therapeutic space through coexistence.

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