

IMPLEMENTATION OF THE PILLARS OF LIFESTYLE MEDICINE AT THE TECHIRGHIOLO BALNEAL AND REHABILITATION SANATORIUM



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I have no actual or potential conflict of interest in relation to this presentation.



ACADEMIA DE
ȘTIINȚE
MEDICALE
Experiența doctelor



SOCIETATEA SPECIALIȘTILOR ÎN
REABILITARE MEDICALĂ ȘI
MEDICINĂ FIZICĂ
ROMÂNIA

THE CONCEPT OF LIFESTYLE MEDICINE



“Lifestyle Medicine” is an evidence-based medical specialty that uses lifestyle interventions to prevent, treat, and even reverse chronic diseases.

It is based on sustainable lifestyle changes, structured around **SIX FUNDAMENTAL PILLARS.**

6 FUNDAMENTAL PILLARS OF LIFESTYLE MEDICINE



Source: NYC Department of Health – Lifestyle Medicine



HEALTHY NUTRITION



PHYSICAL ACTIVITY



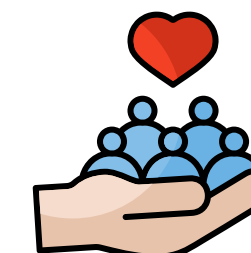
QUALITY SLEEP



STRESS MANAGEMENT



AVOIDANCE OF HARMFUL
SUBSTANCES



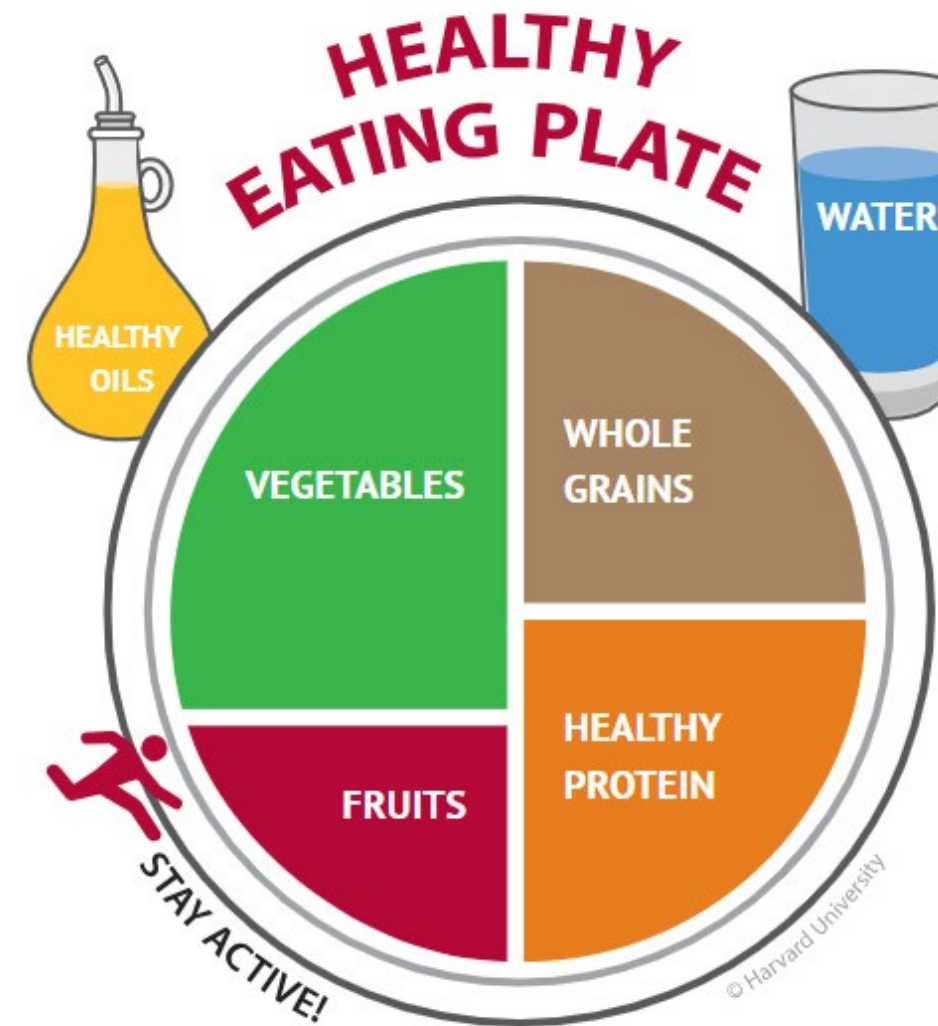
POSITIVE SOCIAL CONNECTIONS

1

HEALTHY NUTRITION LIFESTYLE MEDICINE

PLATE STRUCTURE

- $\frac{1}{2}$ of the plate = vegetables + fruits
- $\frac{1}{4}$ = whole grains
- $\frac{1}{4}$ = healthy proteins



LIFESTYLE

- Adequate hydration, with water as the main source
- Use of unsaturated fats
- Combined with regular physical activity

NUTRITIONAL RECOMMENDATIONS

- Preference for whole grains over refined ones
- Protein intake from healthy sources (fish, legumes, nuts and seeds)
- Limiting ultra-processed foods and added sugars

1

HEALTHY NUTRITION



ACADEMIC RESEARCH PROJECTS

SOMATIC REHABILITATION AND THE PROMOTION OF A HEALTHY LIFESTYLE

BRST Scientific Research Core, in collaboration with the student society of the Faculty of Medicine, "Ovidius" University of Constanța



1

HEALTHY NUTRITION



- **A NUTRITION ASSISTANT AND A MEDICAL RESIDENT IN NUTRITION AND DIETETICS, ACCREDITED BY THE ROMANIAN ASSOCIATION FOR NUTRITION, FITNESS AND HEALTH.**



1

HEALTHY NUTRITION



- **NUTRITIONAL EDUCATION FOR PATIENTS**



2

PHYSICAL ACTIVITY LIFESTYLE MEDICINE



Regular physical activity, according to the World Health Organization:

- 150–300 minutes per week (moderate intensity)
- or
- 75–150 minutes per week (vigorous intensity)

2

PHYSICAL ACTIVITY



PHYSIOTHERAPY– THE FOUNDATION OF FUNCTIONAL MOVEMENT

In this context, physical therapy represents a structured and individualized form of physical activity with a therapeutic role.

2

PHYSICAL ACTIVITY



CPET–ASSESSMENT OF EXERCISE TOLERANCE



- Assessment of exercise tolerance
- Determination of functional capacity
- Guidance for personalized intervention

R-FORCE



- Increases accessibility to physical activity, including for patients with functional limitations, by reducing weight-bearing load

Source: BTL Industries. RForce.

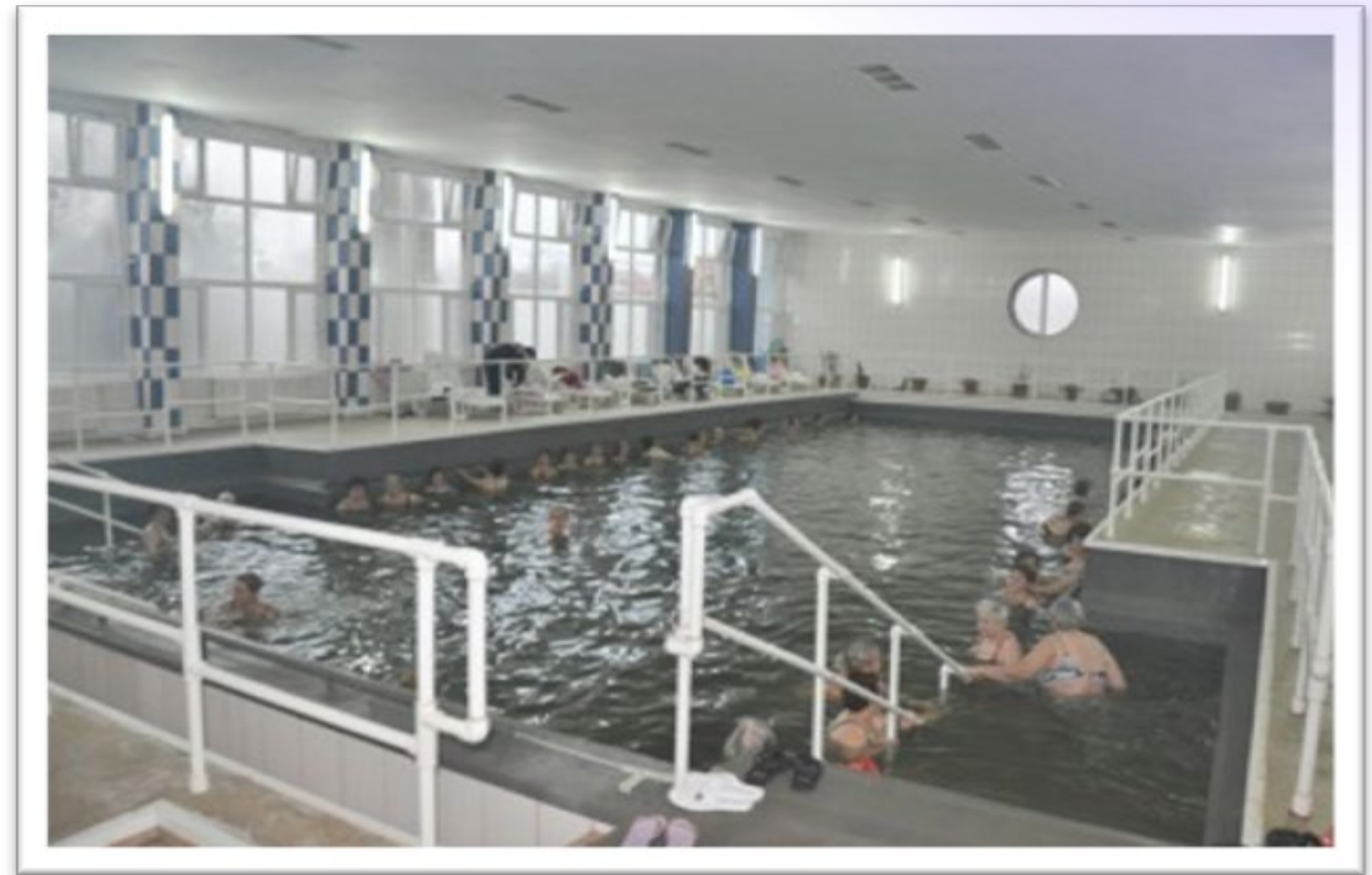
Source: BTL Industries. Cardiopulmonary Exercise Testing (CPET)

2

PHYSICAL ACTIVITY



HYDROKINETIC THERAPY IN SALT WATER FROM TECHIRGHIOL LAKE



- Reduces joint load (buoyancy effect)
- Facilitates mobility and range of motion
- Increases muscle strength under low-resistance conditions
- Improves exercise tolerance

Source: Balneal and Rehabilitation Sanatorium of Techirghiol Archives, Romania

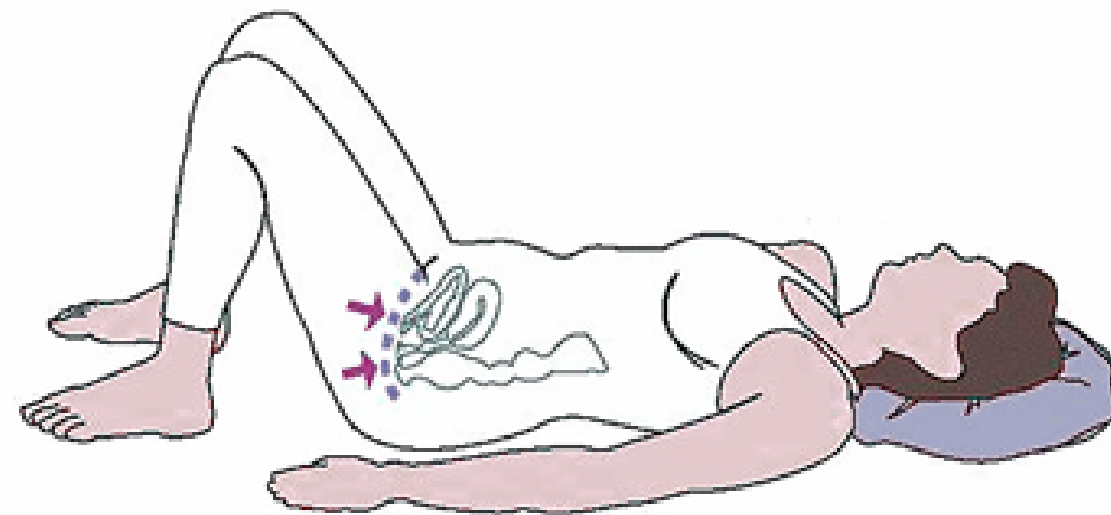
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PHYSICAL ACTIVITY



PELVIC FLOOR STRENGTHENING

KEGEL EXERCICES

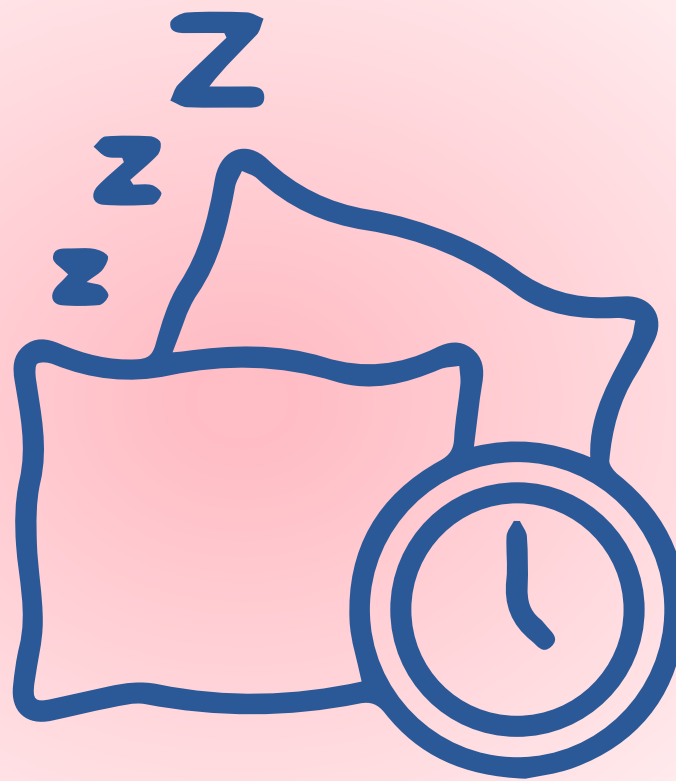


EMSELLA-ADJUNCT THERAPY



3

QUALITY SLEEP LIFESTYLE MEDICINE



- Optimal sleep duration : 7–9 hours per night
- Synchronization of the circadian rhythm
- Sleep hygiene (limiting exposure to artificial light)

Sleep is not just recovery, but an active process of metabolic and neurocognitive regulation.

3

QUALITY SLEEP



ADJUVANT INTERVENTIONS FOR SLEEP OPTIMIZATION

CELLOXY-INTERMITTENT HYPOXIA-HYPEROXIA THERAPY (IHHT)



- Reduces nocturnal hypoxia
- Improves sleep quality
- Promotes deep sleep
- Adjuvant in sleep apnea syndrome (mild–moderate forms)

RELAXATION THERAPEUTIC MASSAGE



- Facilitates sleep onset
- Reduces sleep fragmentation
- Increases deep sleep duration

3

QUALITY SLEEP



ADJUVANT INTERVENTIONS FOR SLEEP OPTIMIZATION

RESPIRATORY PHYSICAL THERAPY



- Improves control of the breathing rhythm
- Reduces nocturnal respiratory effort
- Enhances airway patency

NATURAL FACTORS

MUD BATH THERAPY



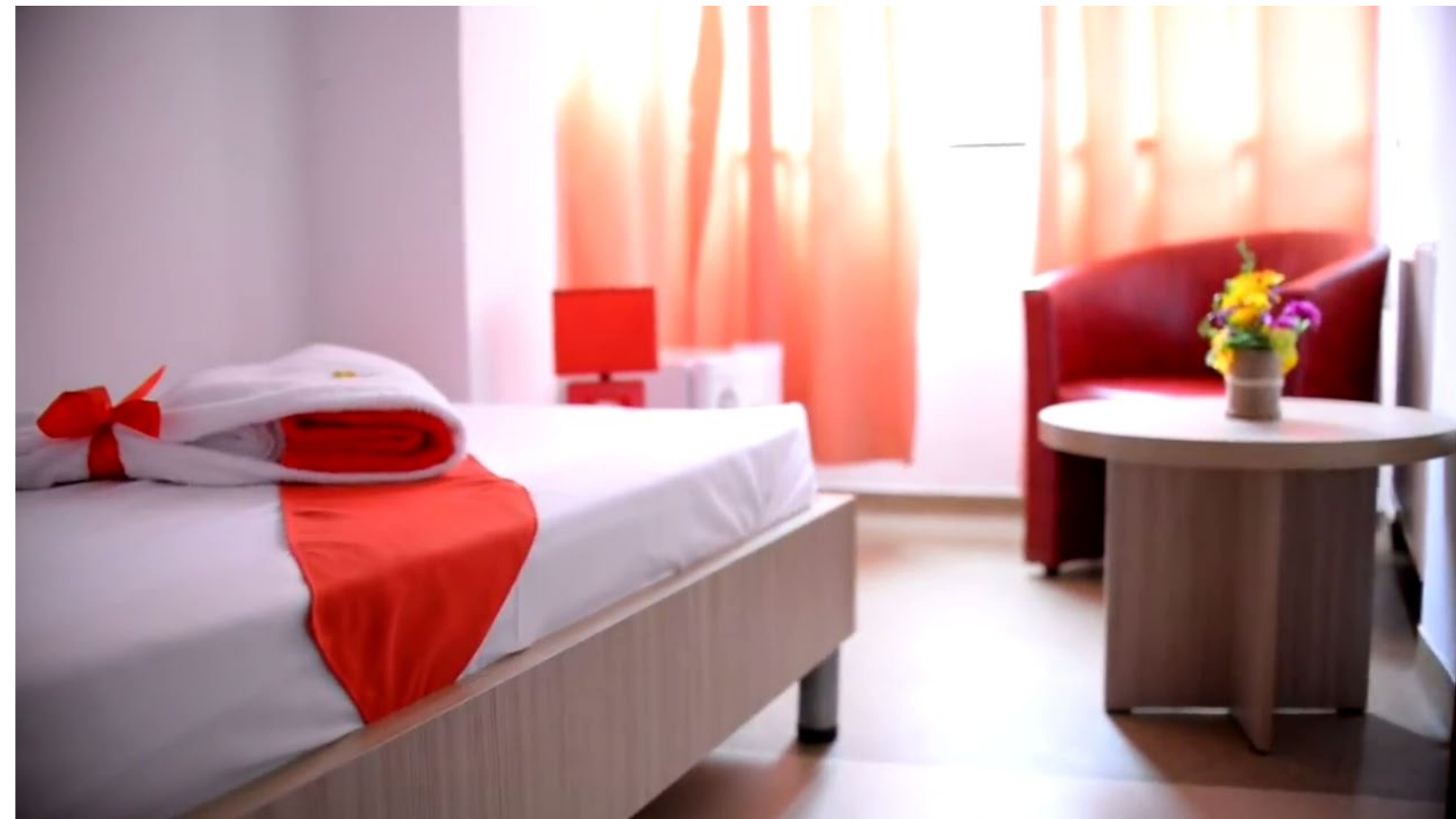
- Induces general relaxation
- Relieves pain (a disruptive factor for sleep)
- Indirectly promotes improved sleep quality



QUALITY SLEEP



AN ENVIRONMENT DESIGNED FOR PATIENT COMFORT AND OPTIMAL REST



4

STRESS MANAGEMENT LIFESTYLE MEDICINE



- Chronic stress is associated with an increased risk of cardiovascular diseases
- Affects sleep, immune function, and metabolism
- Impacts mental health (anxiety, depression, burnout)

4

STRESS MANAGEMENT



ADJUVANT INTERVENTIONS IN STRESS MANAGEMENT

PSYCHOTHERAPY



- Reduces stress reactivity
- Improves emotional regulation
- Decreases anxiety levels

SPIRITUAL SUPPORT (CHURCH)



- Reduces perceived stress
- Supports psychological balance
- Facilitates adaptation to difficult situations

Source: Balneal and Rehabilitation Sanatorium of Techirghiol Archives, Romania

4

STRESS MANAGEMENT



RESPIRATORY PHYSICAL THERAPY



- Modulates autonomic nervous system activity
- Reduces sympathetic hyperactivity

RELAXATION THERAPEUTIC MASSAGE



- Decreases plasma cortisol levels
- Induces neuromuscular relaxation
- Promotes parasympathetic activity dominance

4

STRESS MANAGEMENT



MAGNETOTHERAPY

BENEFITS

- Muscle-relaxing effect
- Reduces neuromuscular excitability
- Promotes general relaxation



THERAPEUTIC ENVIRONMENT

- Relaxing auditory stimulation (ambient music)
- Helps reduce psychological tension
- Supports relaxation during the procedure

4

STRESS MANAGEMENT



COGNITIVE MODULE VRRS

- Increases stress resilience
- Stimulates neuroplasticity
- Enhances emotional regulation
- Improves executive cognitive functions (attention, inhibitory control)



Source: Balneal and Rehabilitation Sanatorium of Techirghiol Archives, Romania

Source: Khymeia VRRS. Official Physiomed website



4

STRESS MANAGEMENT



THERAPEUTIC WALKS IN NATURAL ENVIRONMENT

- Reduce sympathetic activation
- Lower cortisol levels
- Support emotional regulation
- Improve psychological well-being

5

AVOIDANCE OF HARMFUL LIFESTYLE MEDICINE



- An important factor in the prevention of chronic diseases
- Positively influences physical and mental health status
- Reduces the impact of modifiable risk factors
- Supports long-term health maintenance

5

AVOIDANCE OF HARMFUL



ADJUVANT INTERVENTIONS IN AVOIDING HARMFUL SUBSTANCES

PSYCHOTHERAPY



- Reduces substance use behaviors
- Improves impulse control
- Decreases risk of relapse

RELAXATION THERAPEUTIC MASSAGE



- Reduces psychophysical tension
- Promotes autonomic self-regulation
- Contributes to reducing substance use behaviors

5

AVOIDANCE OF HARMFUL



ADJUVANT INTERVENTIONS IN AVOIDING HARMFUL SUBSTANCES

RESPIRATORY PHYSICAL THERAPY



- Promotes respiratory self -regulation
- Supports impulse control
- Contributes to reducing substance use behaviors



POSITIVE SOCIAL CONNECTIONS LIFESTYLE MEDICINE

- Maintaining social support networks
- Engaging in regular social interactions
- Promoting effective communication
- Strengthening interpersonal relationships
- Participating in community activities

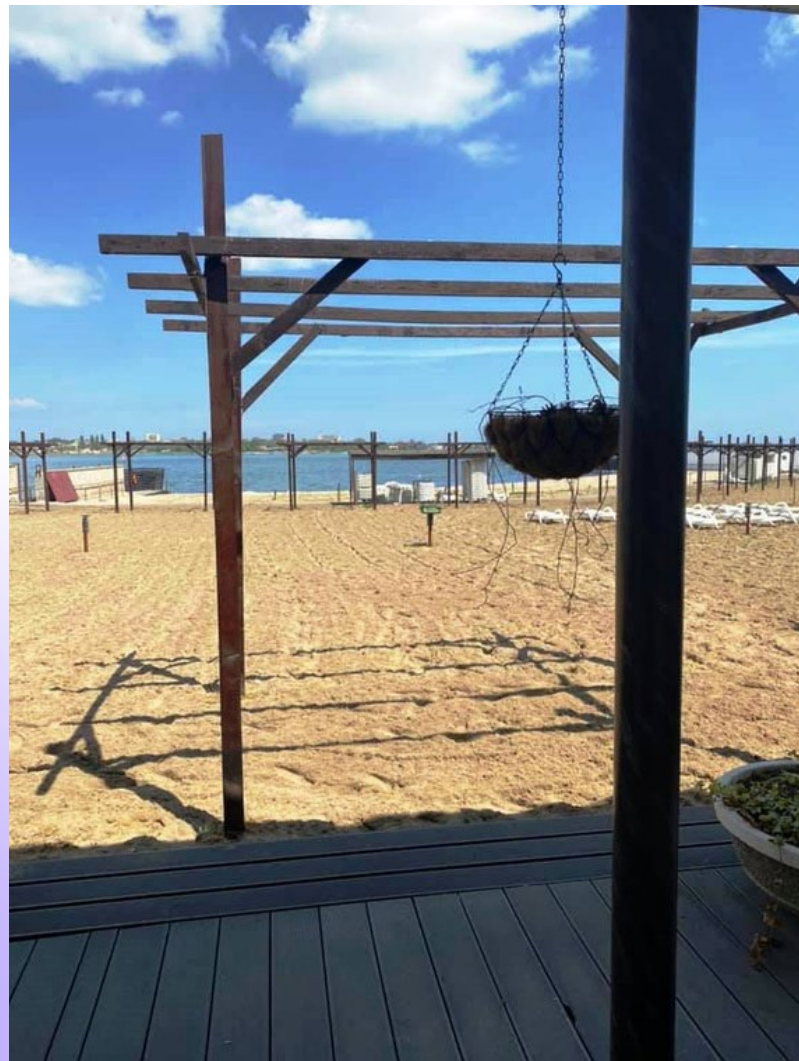
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POSITIVE SOCIAL CONNECTIONS



FAVORABLE CONTEXTS FOR SOCIAL INTERACTION

- Social interactions facilitated by the natural environment (beach)



6

POSITIVE SOCIAL CONNECTIONS



FAVORABLE CONTEXTS FOR SOCIAL INTERACTION

- HYDROKINESIOTHERAPY AND GROUP PHYSIOTHERAPY



6

POSITIVE SOCIAL CONNECTIONS



FAVORABLE CONTEXTS FOR SOCIAL INTERACTION

- Common areas (the Sanatorium restaurant)
- Outdoor activities (walks along the Techirghiol Lake promenade)





Romanian Society of
LIFESTYLE MEDICINE



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