



Discovering The Transformative Power Of Mirror Therapy In Rehabilitation.

Nurses' role

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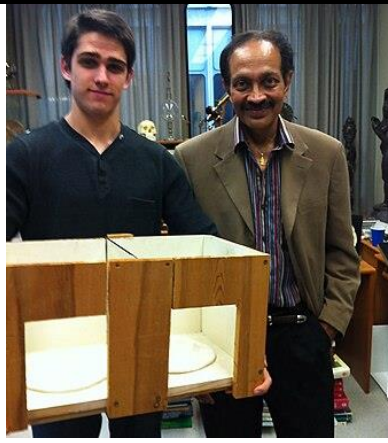
INTRODUCTION

Mirror therapy

Mirror therapy or Mirror visual feedback is a rehabilitation technique where a mirror is used to create the illusion of movement in an affected limb by reflecting the movement of the unaffected limb, potentially stimulating brain regions related to movement, sensation, and pain. Nurses play a crucial role in guiding patients through this innovative technique, helping them regain movement and confidence. This method uses the brain's preference for visual feedback to alleviate pain in conditions like phantom limb pain, stroke, or Complex Regional Pain Syndrome Type 1.

BACKGROUND

Mirror therapy was first proposed as a potential therapeutic intervention by Vilayanur S. Ramachandran to help alleviate Phantom limb pain, a condition in which patients feel they still have a pain in the limb after amputation. Mirror therapy has expanded beyond its origin in treating phantom limb pain to the treatment of other kinds of one-sided pain or disability, hemiparesis in post-stroke patients and limb pain in patients with complex regional pain syndrome.



TECHNIQUE

Mirror therapy involves placing an affected limb behind a mirror and the unaffected limb in front, creating a visual illusion. This helps rewire the brain to perceive the affected limb as functional again.

The patient engages in specific exercises with the unaffected limb, observing their reflection in the mirror, to aid in motor recovery and alleviate discomfort.

PRINCIPLES

Motor therapy (MT) can increase motor excitability in the brain, possibly through the mirror neuron system. Mirror neurons, responsible for laterality reconstruction, are activated when using a mirror box, aiding in the recovery of affected parts. Similar to motor imagery, MT uses the brain's natural preference for visual feedback to stimulate motor processes. However, research evidence is lacking to support this hypothesis. The ipsilateral hemisphere's neurons connect to affected limbs, unlike conventional therapies targeting the contralateral hemisphere.





MIRROR THERAPY IN STROKE PATIENTS

Paretic hand treatment is expensive and labour-intensive, making it difficult for many patients. Mirror therapy, a simple, inexpensive, and patient-directed treatment, may improve upper extremity function. Over 50% of stroke patients remain vocationally impaired, and 30% require full support for daily activities. Techniques like electrical stimulation, electromechanical devices, non-invasive stimulation, and motor cortex stimulation have shown modest improvement in disabilities after stroke.

Mirror therapy is effective in treating hemiparesis by enhancing the activation of the premotor and motor cortex through the activation of the mirror-neuron system, which fires during movement performance and observation by others.

NURSES ROLE IN MIRROR THERAPY

Nurses play a crucial role in implementing and monitoring mirror therapy.

- They need specific skills and knowledge, including understanding mirror therapy principles, assessment skills, and effective communication and teaching skills.
- They can guide patients through mirror therapy exercises, ensuring proper technique and safety
- Nurses play an important role in setting up the mirror therapy environment, ensuring the mirror is correctly placed for the patient's specific needs.
- They collaborate with healthcare professionals, provide patient education, and ensure safe therapy sessions.
- Nurses also monitor patients for adverse reactions, make progress assessments, and manage pain .
- Their participation in research studies on mirror therapy's effectiveness can help improve patient care.

CONCLUSION

Mirror therapy is revolutionizing the way we approach rehabilitation , and our skilled nurses are the forefront of this change. They provide essential support and encouragement , ensuring patients harness the full potential of this therapy.

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