

# PERIPHERAL NEUROPATHIES SECONDARY TO DIABETES:

THE ROLE OF PHYSICAL THERAPY PROMOTING POSITIVE  
BEHAVIORAL CHANGES



# INTRODUCTION: UNDERSTANDING PERIPHERAL NEUROPATHY IN DIABETES

## ◆ DEFINITION

Peripheral diabetic neuropathy (PDN) is a common complication of diabetes where high blood sugar levels damage nerves, particularly in the upper and lower extremities. Symptoms include tingling, numbness, and pain. Management involves blood sugar control, pain mx, and lifestyle adjustments or modifications.

## ◆ PREVALENCE

Estimated prevalence of PDN among adults with diabetes 28%  
[1, 2]

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## ◆ IMPACT QUALITY OF LIFE (QOL)

→ anxiety, depression, and sleep disturbances: 43%[3]

→ employment: 35%- 43% [3, 4]

→ increase risk of falls due to balance issues 25% adults > 65 years old [5-8]

# EXERCISE AS A CORNERSTONE OF NEUROPATHY MANAGEMENT

## ◆ PHYSICAL THERAPY

- ◆ Exercise is known as: Therapeutic exercise (TE), which can be classified into various types, such as muscle stretching, strengthening/resistance, aerobic, motor control/stabilization training and mind-body exercise [9].
- ◆ Benefits: blood glucose and blood lipid reduction, exercise induced hypoalgesia, and emotional improvement [10-11].

# IMPORTANCE OF POSITIVE ATTITUDE TOWARDS PT

- ◆ Exercise, recognized as a practical and affordable method which is widely acknowledged as an effective remedy of musculoskeletal issues. It helps rectify impairments and enhancing both physical and cognitive functions, thereby promoting overall health[12].

# BEHAVIORAL CHANGES AND PERIPHERAL NEUROPATHY

- ◆ BENEFITS OF MANAGING NEUROPATHIC PAIN
- ◆ Interventional treatment for patients with PDN indicates that exercise programs to be beneficial to the recovery of damaged peripheral nerves, the alleviation of pain symptoms, and improvement of physical status [12].

# TESTING

## QUALITY OF LIFE (QOL) ASSESSMENT

Two research tools that can be used to assess quality of life that are neuropathy specific are the Neuro-QoL (Quality of Life in Neurological Disorders) [13] and QOL-DN (Norfolk Quality of Life-Diabetic Neuropathy) instruments (14).

## MONOFILAMENT

Semmes-Weinstein Monofilament Examination (SWME): “GOLD STANDARD” for testing of Peripheral Diabetic Neuropathy [15,16]



# CONCLUSION

- ◆ INTEGRATING BEHAVIORAL CHANGES  
“POSITIVITY” INTO NEUROPATHY  
MANAGEMENT
- ◆ CALL TO ACTION OF MEDICAL  
PROFESSIONALS
- ◆ EMPHASIZING PATIENT-CENTERED CARE



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