



OCCUPATIONAL THERAPY IN PAIN MANAGEMENT



PAIN FREE PROGRAMME | KEMENTERIAN KESIHATAN MALAYSIA | UNIT AUDIT KLINIKAL

WHAT IS OCCUPATIONAL THERAPY

Occupational **therapy is a client-centered** health profession concerned with promoting health and well being through occupation.

The primary goal of occupational therapy is to **enable people to participate in the activities of everyday life.**

Occupational therapists achieve this outcome **by modifying the occupation or the environment** to better support their occupational engagement. *(WFOT)*

IMPACT OF PAIN

- Pain causes tremendous human suffering for its victims, their families, and society as a whole.
- It can lead to:
 - Increased dependency on others
 - Loss of work and family roles
 - Difficulty participating in everyday activities
 - Sleep problems
 - Psychological disturbance
 - Social isolation
 - **Overall reduced quality of life**

THE ROLE OF OCCUPATIONAL THERAPY

1

To help individual achieve **independence, meaningful and satisfaction** in all aspects of their lives

2

Focusing mainly on **preventive, promotive, and rehabilitative** for physical, cognitive, social functional and interaction towards helping client to achieve optimum quality of life.

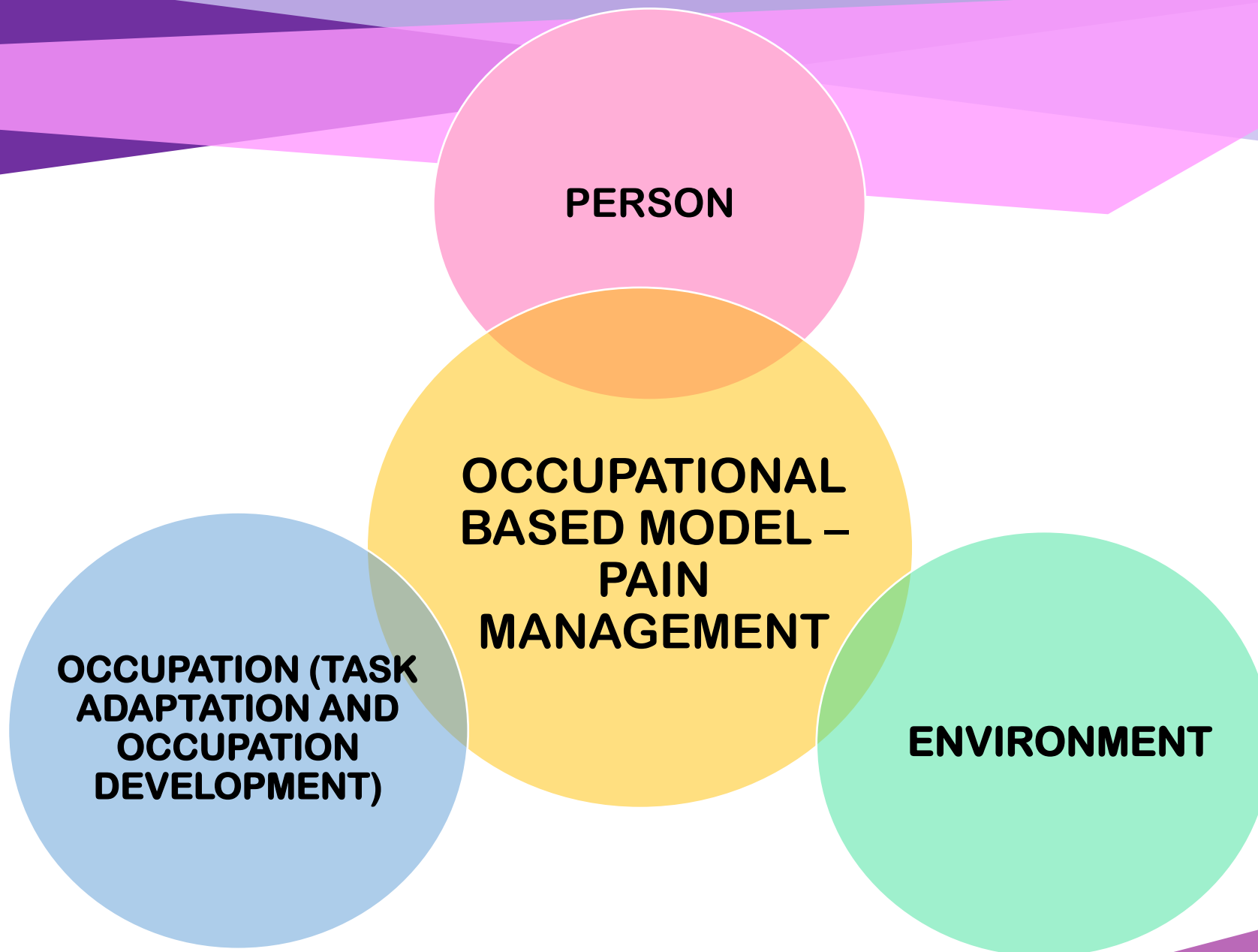
OBJECTIVES OF OCCUPATIONAL THERAPY IN PAIN MANAGEMENT

Use a holistic and comprehensive approach, to evaluate all aspect of the domain that influence the experience of pain and use evidence-based, skilled interventions to help client to improve their function and quality of life.

OCCUPATION	CONTEXTS	PERFORMANCE PATTERN	PERFORMANCE SKILLS	CLIENT FACTORS
<ul style="list-style-type: none">• Activity of Daily Living• Instrumental Activity of Daily Living• Health Management• Rest And Sleep• Education• Work• Play• Leisure• Social Participation	<ul style="list-style-type: none">• Environmental Factors• Personal Factors	<ul style="list-style-type: none">• Habit• Routines• Roles• Rituals	<ul style="list-style-type: none">• Motor Skill• Process Skills• Social Interaction Skill	<ul style="list-style-type: none">• Values• Belief And Spiritual• Body Function• Body Structures

WHAT AN OCCUPATIONAL THERAPIST DO

1. Identify **specific activities or habits** that aggravate pain and suggest alternatives.
2. Teach **methods to decrease the frequency and duration** of painful episodes.
3. Implement **therapy interventions** that may decrease dependence on use of pain medications.
4. Facilitate the **development of better function** for daily activities at work and home.
5. **Recommend and teach** the client how to **adapt to environment context to minimize pain**.
6. **Collaborate** with the client's team of health care professionals, to determine the best course of treatment and intervention.



PERSON	ENVIRONMENT	OCCUPATION (TASK ADAPTATION AND OCCUPATION DEVELOPMENT)
<ul style="list-style-type: none"> ▪ Body mechanics (posture and position ▪ Energy conservation/ joint protection technique ▪ Relaxation technique/stress management ▪ Mindfulness ▪ Cognitive behavioral approach ▪ Coordination/dexterity, strengthening task ▪ Desensitization technique/sensory reeducation ▪ Active movement/mobilization technique ▪ Functional splinting ▪ Compression therapy/garment ▪ Proprioceptive neuromuscular facilitation/reeducation ▪ Mirror Therapy ▪ Coping strategies 	<ul style="list-style-type: none"> ▪ Ergonomics (Home, Work And Tools and Equipment) ▪ Environmental Modification 	<ul style="list-style-type: none"> ▪ Pacing/ Graded Activity ▪ Activity (Task) Adaptation ▪ Vocational Intervention ▪ Sleep Hygiene

PERSON

■ BODY MECHANIC

- Safe body mechanic perform in basic activities of daily living, work, leisure, social & community activities **to reduce or prevent strain on body structure** (AOTA, 2014).

■ ENERGY CONSERVATION/JOINT PROTECTION TECHNIQUE

- Energy conservation techniques help by **reduce the amount of effort needed to perform daily tasks and building more rest.**
- Application of energy conservation throughout the activity enable patient to **complete task with less exacerbation of pain symptoms.** In the process, the participant learn to feel more control in pain (McCullough, L., 2011).



PERSON

COGNITIVE BEHAVIOR APPROACH

- This approach proven to improve physical function of patient with chronic pain with combination of other therapeutic modalities (Arina & Karimah, 2019)

MINDFULNESS

- When it comes to acute or short term pain, people report less distress and can tolerate more pain when they have had meditation training, compared to people who do not meditate. (Grant, 2014)
- Practicing mindfulness meditation can be helpful for people with persistent pain, with moderate effect in reducing pain intensity (Reiner et. al, 2013)



PERSON

RELAXATION TECHNIQUE FOR PSYCHOLOGICAL DISTRESS

Relaxation therapy has been shown to decrease anxiety and help in pain relief by lowering muscle tension and distracting attention (Good M, 1999)

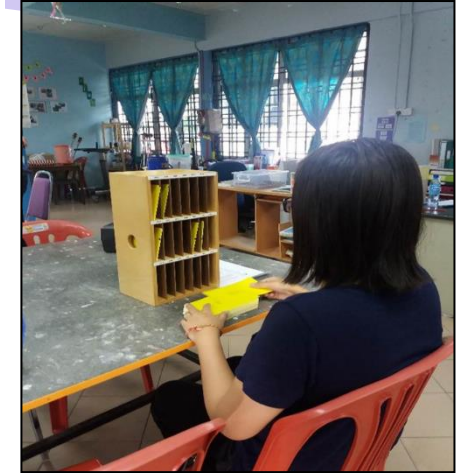
Deep Breathing
Progressive Muscular
Imaginary



PERSON

COORDINATION AND DEXTERITY FUNCTIONAL ACTIVITIES

- Grip strength & manual dexterity of **hand function activities** significantly improve in patient with chronic neck pain (Tomruk et al., 2018). (e.g: Arthritis / RA /OA/Neurological Condition)

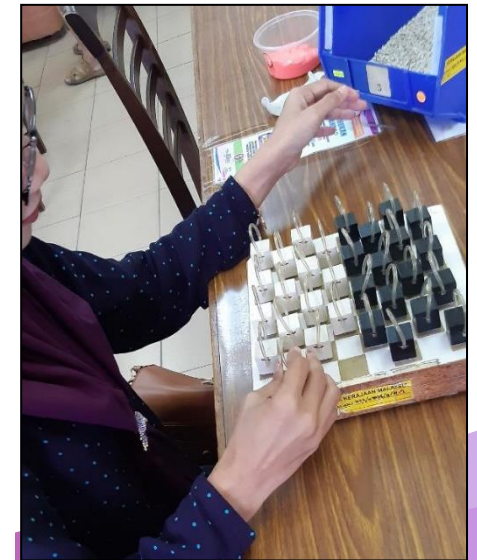


ACTIVE MOBILIZATION – IADL Activities

- Significant immediate pain intensity reduction proven during active mobilization - (Aquino. R. L., 2013).

PROPRIOCEPTIVE NEUROMUSCULAR FACILITATION AND REEDUCATION

- **Persistent pain can leads to abnormal movement patterns** and postural deviation. Retrain clients to **perform task with appropriate muscle group** using adjunctive method, in order to prepare them to **participate in value activities** (AOTA, 2014).



PERSON

DESENSITIZATION TECHNIQUE

- Technique to “re-trained” sensory nerve endings to identify different types of stimuli sensory to reduce the sensitivity.
- Studied the effect of desensitization on hyperesthesia in the hand and upper extremity after injury or surgery showed significant improvements with pain / discomfort reduced, decreased skin areas sensitivity and a higher occupational performance in daily occupations.

Göransson & Cederlund (2011)



PERSON

SENSORY REEDUCATION

- Sensory re-education is a technique therapists use in attempt to **retrain sensory pathways** or stimulate unused pathways.
- Therapists also teach adaptive techniques to help **compensate for sensory loss**.
- Sensory re-education techniques can **include touching different textured objects, vibration, pressure, proprioceptive activities and identifying different temperatures**.

PERSON

MIRROR THERAPY

- Mirror visual feedback (MVF) was initially utilized by Ramachandran and Rogers-Ramachandran in 1996 to alleviate pain and paralysis in amputees.
- Moura et al (2012) done a review on the effects of mirrored and imagined movements suggest that several types of modification of input into the affected brain region may alter pain sensation.



PERSON

SPLINTING

- Splinting demonstrated a **moderate to large** effect for pain.
- **Small to moderate** effect for function for long term (Butler M. et al 2019)
- supports during **acute and flare up stage** (Ekelman et al., 2014).



PERSON

COMPRESSION GARMENT

- The compression acts almost like a low-level massage, putting pressure on muscles **to minimize delayed onset muscle soreness (DOMS)**.
- Compression garments **raise the temperature of the skin and tissues to increase blood flow and promote healing**, the same way that heat therapy does.
- The pressure applied by the garment helps you reduce the pain or make it more bearable when you cough, laugh or sneeze (e.g.: Abdominal binder)



PERSON

COMPRESSION GARMENT

- A review of seven clinical trials and one case study testing the efficacy of **therapy gloves** (thermal and / or compression) for a wide range of trial durations (1–52 weeks) demonstrated that the gloves **improve symptoms** such as such as pain, stiffness and swelling with marginal improvement in hand function. (Nasir et al, 2014)



PERSON

COPING STRATEGIES

- Various strategies implement in self management for pain
- Adaptive coping skill have good outcome in self efficacy, social interaction and quality of life. (Joan et al, 2012)

ENVIRONMENT

ERGONOMICS (HOME, WORK AND TOOLS / EQUIPMENT)

- **Ergonomic assessment** to identify the environmental factors that may be contributing to pain (AOTA, 2014). (home /work/school visit)

ENVIRONMENTAL MODIFICATION

- **Positive impact in patient function** (WHO, 2008).
- **Environmental adaptation and modification of occupation will improve performance skills** (OTPF, 2020).



OCCUPATION

Task Adaptation And Occupation Development

PACING / GRADED ACTIVITY

- Treatment consisted of educating patients to utilize pacing and restructure daily routine is **important in managing the pain in order to improve function.**
- **Participants who not rest during activity showed decrease in ability to engage with functional task.** (McCullough, L., 2011).

TASK ADAPTATION

- Chronic pain restricts performance of activities that **one need, want & expect to do.** This isolation & inability interfere to fulfil values and meaningful role. Occupational therapy provide **strategy in activity management, activity adaptation and coping strategy** involve home, school and workplace (Hill, 2016).

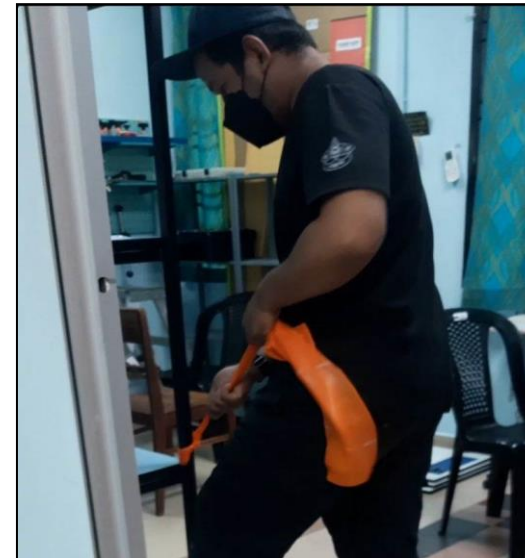
OCCUPATION

Task Adaptation And Occupation Development

VOCATIONAL INTERVENTION

- Creating plan for **returning to work** by:
 - utilizing the **pain management technique**
 - **graded exposure**
 - **job modification** involving restoring vocational purpose as expediently and safely as possible

(Norman et al, 2013)



OCCUPATION

Task Adaptation And Occupation Development

SLEEP

- Pain and fatigue are secondary conditions that may **precipitate diminished sleep quality** (AOTA, 2014).
- Educate patient in sleep hygiene
- Focus on promoting optimal by **managing pain & fatigue**.
- Activities related to obtaining restorative rest & sleep to support healthy, active engagement in other occupations

(OTPF, Domain & Process Ed 4th)

OUTCOME

OCCUPATIONAL THERAPY OUTCOMES

IMPROVE
QUALITY OF
LIFE

BETTER
COPING SKILL

MINIMIZE PAIN

FULL PARTICIPATION IN
ACTIVITIES OF DAILY LIVING
(PERSONAL CARE, RETURN TO
WORK, LEISURE/PLAY, SOCIAL
AND SPIRITUAL PARTICIPATION
AT OPTIMAL LEVEL

CONCLUSION

- When pain becomes chronic, it leads to pain-related disability, human suffering, and tremendous economic costs.
- Occupational therapy focused on client-centered care and promoting optimal independence and satisfaction with performance.
- So that patient can participate in their life roles regardless of the stage of pain or disease.





THANK YOU



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