Knowledge of Pain Neurophysiology and Fear Avoidance in People with Chronic Pain

Chronic pain is prevalent and fear of pain arguably has a greater impact than degree of initial injury. Pain neurophysiology education aims to change maladaptive pain beliefs which can increase fear of pain and compromise movement. To better understand the effectiveness of PNE in the treatment of chronic pain, we explore the link between pain knowledge and fear avoidance.

Aim:

- Understand the relationship between knowledge of pain neurophysiology and fear avoidance in chronic pain.
- Determine the extent to which perceived disability, pain level and duration, compensable status, educational attainment and surgical interventions are associated with fear avoidance and pain neurophysiology knowledge.

Method:

29 participants. Mean duration of chronic pain was 79 months (SD109). Participants completed:

- Revised Neurophysiology of Pain Questionnaire (rNPQ)
- Tampa Scale of Kinesiophobia (TSK)
- Perceived disability (PDI)
- Educational level
- Compensable status

Pearson's correlation (r) coefficients determined the relationship between fear of movement and pain knowledge.

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Results:

- Higher pain knowledge was associated with lower fear avoidance ($r=-0.41$, $p=0.029$).
- Higher pain knowledge was associated with lower perceived disability ($r=-0.45$, $p=0.014$) related to pain.
- No relationship existed between educational level or compensable status with TSK and rNPQ.

Significance to Allied Health:

- Kinesiophobia is positively influenced by neurophysiology of pain education. Better pain knowledge is associated with lower activity-related fear.
- Pain education helps fear avoidance behaviours and reduces disability.
- Pain education is cost effective and easy to apply.

Reference:
Claire Fletcher a, c, Lynley Bradnam a,b, and Christopher Barr a (2016). The relationship between knowledge of pain neurophysiology and fear avoidance in people with chronic pain: A point in time, observational study, Physiotherapy Theory and Practice, DOI 10.3109/09593985.2015.1138010
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