PAIN IN EUROPE XIV COMORBIDITY OF CHRONIC PAIN AND MENTAL HEALTH DISORDERS: BREAKING THE CYCLE

#### 14TH CONGRESS OF THE EUROPEAN PAIN FEDERATION EFIC® 24-26 APRIL 2025 | LYON, FRANCE EFIC-CONGRESS.ORG #EFIC2025

Fippin' Pain Goes to School

#### AUTHORS, J. MANKELOW <sup>12</sup>, C.G. RYAN <sup>12</sup>, N. SKIDMORE <sup>3</sup>, J. POTTER <sup>4</sup>, D. RAVINDRAN <sup>125</sup>, R. CHATTLE <sup>6</sup>, S. BROWNE<sup>27</sup>, S. SURI<sup>1</sup>, A. GRAHAM A<sup>1</sup>, J.W. PATE<sup>28</sup>, R. NEWPORT<sup>9</sup>, T. LANGFORD<sup>1</sup>, D. MARTIN<sup>10</sup>

1. Centre for Rehabilitation, School of Health and Life Sciences, Teesside University, UK

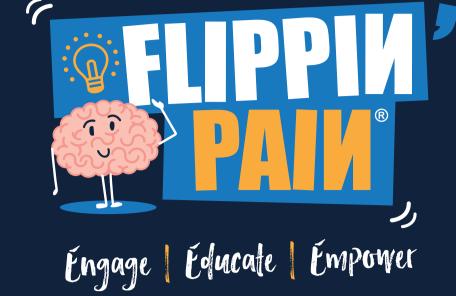
2. Pain Education Team Aspiring Better Learning (PETAL)

3. Department of Sport and Exercise Sciences, Faculty of Social Sciences and Health, Durham University, United Kingdom 4. Richmond School and Sixth Form College, UK

5. Central Reading Primary Care Network, Reading, UK

6. Primary Care Rehabilitation Facility, Catterick Garrison 7. The Newcastle Upon Tyne Hospitals NHS Foundation Trust and PETAL. 8. Graduate School of Health, University of Technology Sydney, Sydney, New South Wales, Australia 9. School of Sport, Exercise and Health Sciences, Loughborough University, Loughborough, UK 10. NIHR Applied Research Collaboration for the North East and North Cumbria, Newcastle Upon Tyne, England







## Introduction

Public understanding of persistent pain is fraught with misconceptions.

Pain science education in schools may improve public understanding long-term.



This study evaluated the impact of a one-day Pain Science Education (PSE) public health event delivered in a 16-18 year old school setting.

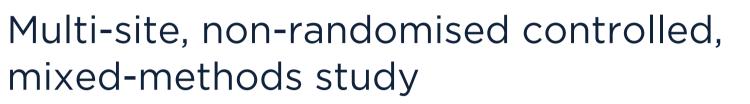
Outcome measures: Quantitative

- Knowledge
- Attitudes
- Behavioural intention

#### Qualitiative

- experiences of the day
- experiences of pain science education

### Method



- 3 data collection time points: baseline, post intervention, and three-month follow-up.
- Participants: high school students  $\geq$ 16 years old.
- Pain Beliefs Questionnaire (PBQ [organic and psychological subscales]),
- Concepts of Pain Inventory (COPI-Adult), a case vignette,
- reflexive thematic analysis of semi-structured interviews.

### **Results**

**Data collection point** 

**PSE Group Mean (SD) Control Group Mean (SD)**  **Between Group Mean** Difference (95% CI)

**Change from Baseline to immediately post intervention** 

#### 77 attended the intervention but 47 lost to follow up

30 intervention group participants – mean age 16.6 years, 37% female, 63% male. 37% of the control group had had chronic pain, 13% had current chronic pain, 23% had 2-8 areas of pain

24 control group participants 63% female, 37% male. 34% had had chronic pain, 41% currently had chronic pain. 46% had 2-8 areas of pain.

#### Majority white ethnicity

Attending the pain education event was associated with in both PBQ and COPI-Adult:

reductions in biomedical beliefs

• increases in biopsychosocial beliefs

These shifts were partially sustained at 3 months.

• Improvements for case vignette assessments with more suggestions of active management

• Semi structured interviews n= 13 identified

PBQ Organic	-4.2 (4.8)	-0.2 (1.7)	-4.4 (-6.0, -1.9)
PBQ Psych	4.8 (4.2)	0.2 (1.6)	4.6 (2.7, 6.4)
COPI-Adult	8.8 (7.2)	-0.5 (1.6)	9.3 (6.4, 12.4)
Change from Baseline to 3 months post intervention			
PBQ Organic	-2.2 (4.4)	-0.3 (2.5)	-1.9 (-4.0, 0.6)
PBQ Psych	3.0 (4.0)	0.7 (3.1)	2.3 (0.3, 4.3)
COPI-Adult	2.9 (7.5)	0.3 (-3.4)	2.6 (0.7, 6.0)
	Biopsychosocial	Greater Empathy	lication not le answer is possible
Novelty and Uniqueness	Reconceptualisation		
Engagement in PSE events	Person with pain is the expert		
Effective Connection Interactive and Enjoyable Learning	Pain is common	MRIS / Scans	ot bed rest ep moving Relating to self

## Conclusion

Attendance at a one-day PSE-based public health event was associated with improved, ie more biopsychosocial based:

- Knowledge
- Beliefs
- Behavioural intentions regarding persistent pain.
- Awareness of chronic pain
- Engaging education

### References

Mankelow J, Ravindran D, Graham A, Suri S, Pate JW, Ryan CG, Martin D. An evaluation of a one-day pain science education event in a high school setting targeting pain related beliefs, knowledge, and behavioural s. Musculoskelet Sci Pract. 2023 Aug;66:102818. doi: 10.1016/j.msksp.2023.102818. Epub 2023 Jun 27. PMID: 37418949.

Pate JW. (2022). Developmental Influences on the Meanings of Pain in Children. In: van Rysewyk S. (ed) Meanings of Pain. Springer, Cham. https://doi.org/10.1007/978-3-030-95825-1\_3

Ryan CG, Karran EL, Wallwork SB, Pate JW, O'Keeffe M, Fullen BM, Livadas N, Jones N, Toumbourou JW, Gilchrist P, Cameron PA, Fatoye F, Ravindran D, Moseley GL. (2024) We are all in this together - whole of community pain science education campaigns to promote better management of persistent pain. Journal of Pain. Vol 25(4): 902-917.

## Acknowledgement

Thank you to the staff at the Sixth Form Colleges involved in North Yorkshire, UK.

Hontact 

Dr Jaj Mankelow, j.Mankelow@tees.ac.uk PAIN IN EUROPE XIV COMORBIDITY OF CHRONIC PAIN AND MENTAL HEALTH DISORDERS: BREAKING THE CYCLE

### 14TH CONGRESS OF THE EUROPEAN PAIN FEDERATION EFIC® 24-26 APRIL 2025 | LYON, FRANCE

EFIC-CONGRESS.ORG #EFIC2025

• EFIC

 $\mathbf{I}-\mathbf{A}.\mathbf{28}$ 

# Waiting with Pain

#### AUTHORS, J. MANKELOW <sup>12</sup>, C.G. RYAN <sup>12</sup>, T.R. STANTON <sup>234</sup>, R. PELL<sup>5</sup>, V. VARGHESE<sup>1</sup>, D. MARTIN <sup>6</sup>

- 1. Centre for Rehabilitation, School of Health and Life Sciences, Teesside University, UK
- 2. Pain Education Team Aspiring Better Learning (PETAL)
- 3. IIMPACT in Health, Allied Health and Human Performance, The University of South Australia, Adelaide, South Australia, Australia

4. Neuroscience Research Australia, Sydney, New South Wales, Australia

- 5. Flippin' Pain Campaign Director, Connect Health, UK
- 6. NIHR Applied Research Collaboration for the North East and North Cumbria, Newcastle Upon Tyne, England, UK

Éngage Éducate Émpoyer

Introduction

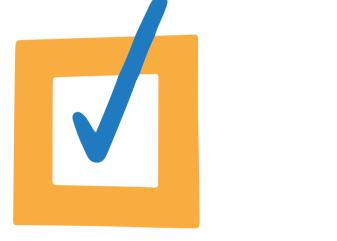
Waiting lists for referral to flep treatment in the UK numbered 7.5 million people in 2024. Trauma and orthopaedics was largest at 800,000. Many on waiting lists have pain from different causes. Waiting lists to access pain management services alone in Britain can vary from 6-112 weeks. Pain science education (PSE) aims to address misconceptions about pain and has the potential to improve pain

knowledge, movement evoked pain,

worry about tissue damage, pain

levels and associated disability.

Evaluate the experience of online delivery of PSE en masse to people with persistent pain who are on NHS waiting lists for any number of conditions that may feature persistent pain.



Method

A mixed-methods, observational cohort study of mostly Scotitsh NHS waiting list patients

Three seminars were presented by experts in the delivery of PSE. The sessions lasted approximately 90 minutes each. They consisted of a 45-60 minute didactic presentation followed by a Q&A with a panel of clinicians and people with lived experience of pain.

"Rethinking Pain: New Understanding & New Possibilities" "Why Everything Matters when it comes to Pain"

"Flippin' Everything you thought you knew about Arthritis", respectively.

A questionnaire was circulated post intervention to establish intended behaviours relevant to pain and perception of the education. Analysis used descriptive statistics to assess the quantitative outcomes and reflexive thematic analysis to interpret the qualitative data and facilitate identification of patterns or themes.



l am more hopeful about my future

am more likely to seek help to reduce my opioid use

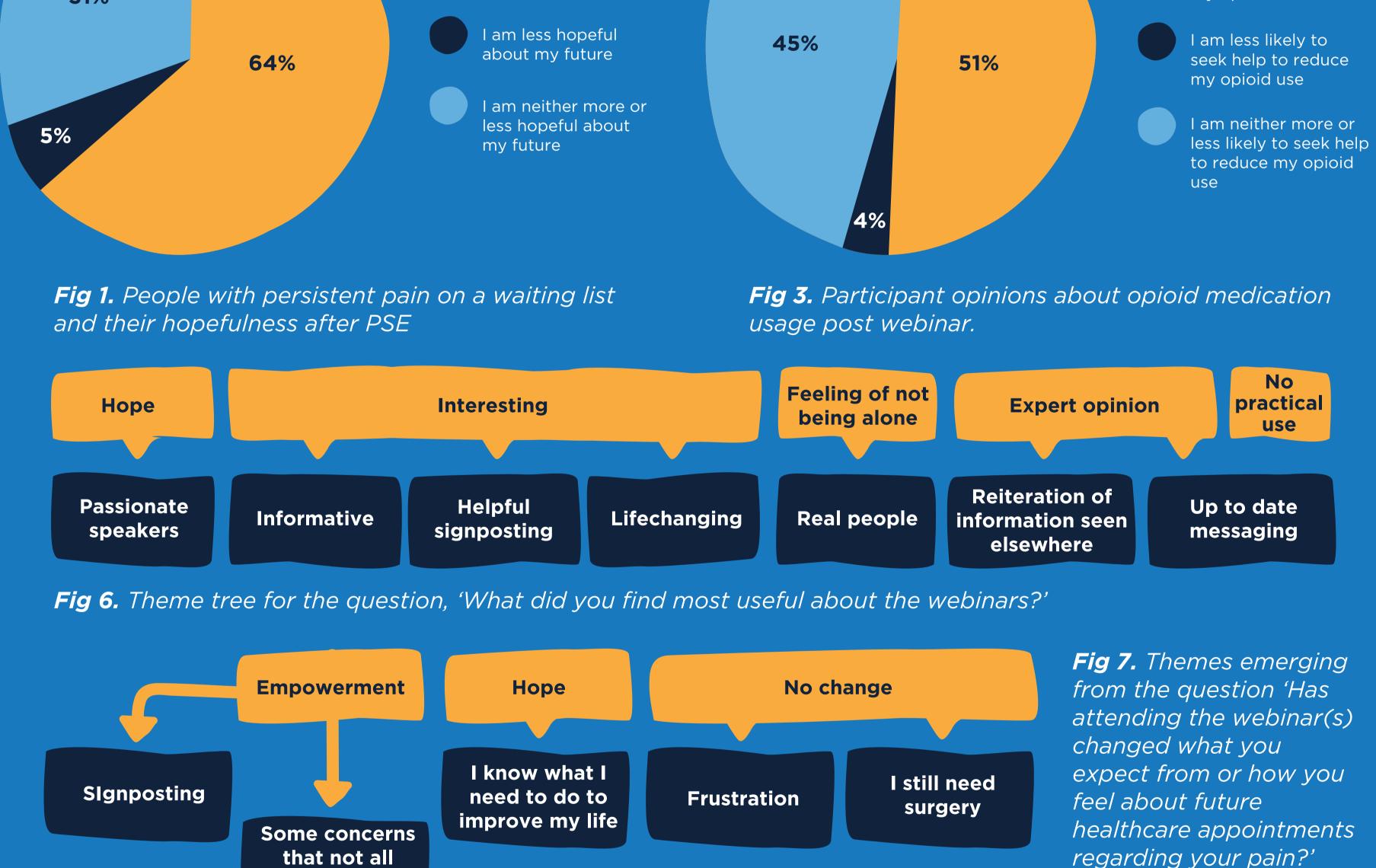
114 people with persistent pain on a waiting list for services provided by Scottish NHS participated in the PSE webinars.

People were on waiting lists for pain management services, orthopaedics, rheumatology or other (including reportedly urology, gynaecology, orthotics, joint replacement, neurology and blood tests).

#### The majority of participants

- felt more hopeful about their future,
- intended to increase activity levels,
- were more likely to reduce their opioid use.
- Generally participants felt more confident to talk to others about their pain.
- Attitudes towards wanting imaging for the problem changed in 35% of the sample population to either less likely or more likely to question the need for imaging.

Generally PSE was well received and gave feelings of hope and empowerment, it was interesting and gave participants a feeling that they were not alone. The large majority of participants, 80%, said that they would recommend the webinars to others.



### Conclusion

Participants awaiting pain management on Scottish NHS waiting lists found PSE webinars to be helpful in their perception of their pain and feelings of hope. They also shifted their intention to being more active in their pain management in line with the evidence base.

### References

Connelly D. 2020 Losing faith: The patients waiting years for specialist pain treatment. Pharm J. https://doi: 10.1211/PJ.2020.20207656).

**HCPs** have this

knowledge

Leake HB, Moseley GL, Stanton TR, O'Hagan ET, Heathcote LC. What do patients value learning about pain? A mixed-methods survey on the relevance of target concepts after pain science education. Pain. 2021 Oct 1;162(10):2558-2568. doi: 10.1097/j.pain.000000000002244. PMID: 33960326.

Ryan CG, Karran EL, Wallwork SB, Pate JW, O'Keeffe M, Fullen BM, Livadas N, Jones N, Toumbourou JW, Gilchrist P, Cameron PA, Fatoye F, Ravindran D, Lorimer Moseley G 2023 We Are All in This Together-Whole of Community Pain Science Education Campaigns to Promote Better Management of Persistent Pain. J Pain. https://doi: 10.1016/j.jpain.2023.10.024. Epub Oct 31. PMID: 37918470.

Acknowledgement

Thank you to the patients on waiting lists who were willing to work with us on this project

HOMAG

j.Mankelow@tees.ac.uk

Dr Jaj Mankelow,