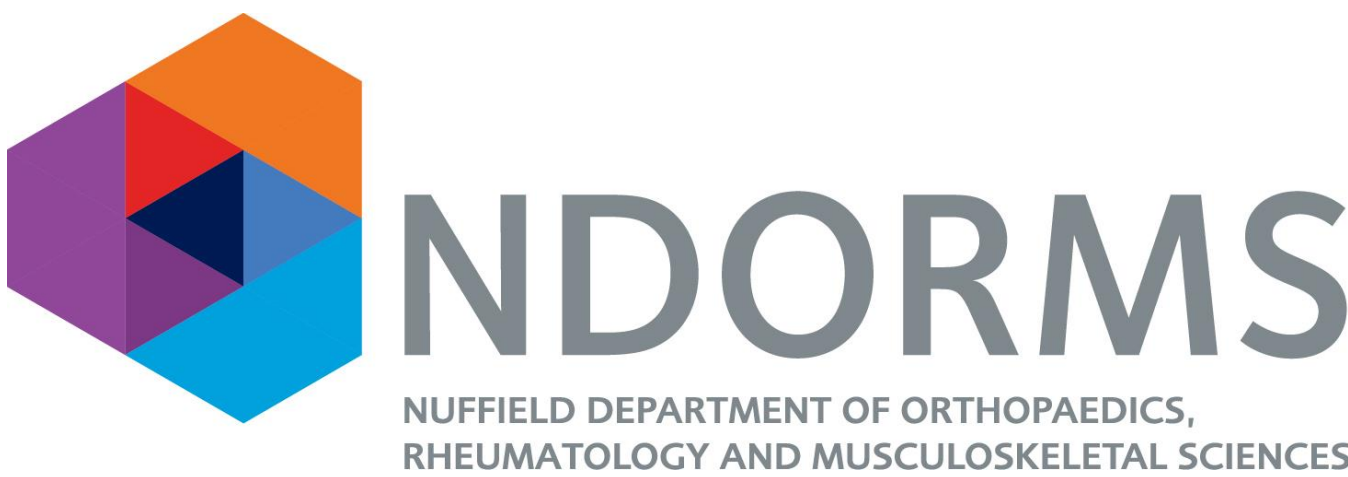




Physical activity and health-related quality of life of patients with chronic pain after total knee replacement: analysis of the PEP-TALK trial

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BACKGROUND

The PEP-TALK randomised controlled trial (RCT) tested the effectiveness of a behaviour change physiotherapy intervention to increase physical activity compared with usual rehabilitation after total knee replacement (TKR). Whilst originally designed to evaluate the effectiveness of a behaviour change intervention, the negative outcome from the trial, which unusually provide a physical activity primary outcome, offers the ability to perform an analysis of both physical activity and HRQoL in the initial 12 months post-TKR.

OBJECTIVE

To examine how physical activity and health-related quality of life (HRQoL) evolved over the first year after TKR for participants with and without post-operative chronic knee pain.

METHODS

- We identified PEP-TALK participants who underwent a primary TKR for which complete data from the Oxford Knee Score pain subscale (OKS-PS) was available at 6 months after randomisation.
- Patients scoring 14 or less on the 6 month OKS-PS were considered to have chronic pain (as had been previously defined in the literature).
- Mean UCLA and EQ-5D-5L values for participants with chronic pain and non-chronic pain were calculated.
- One thousand bootstrap samples of equal size to the original were generated (for each time point, and chronic pain group) by randomly sampling from the data with replacement.
- The percentile method was applied on the one thousand samples to derive 95% confidence intervals (CI).

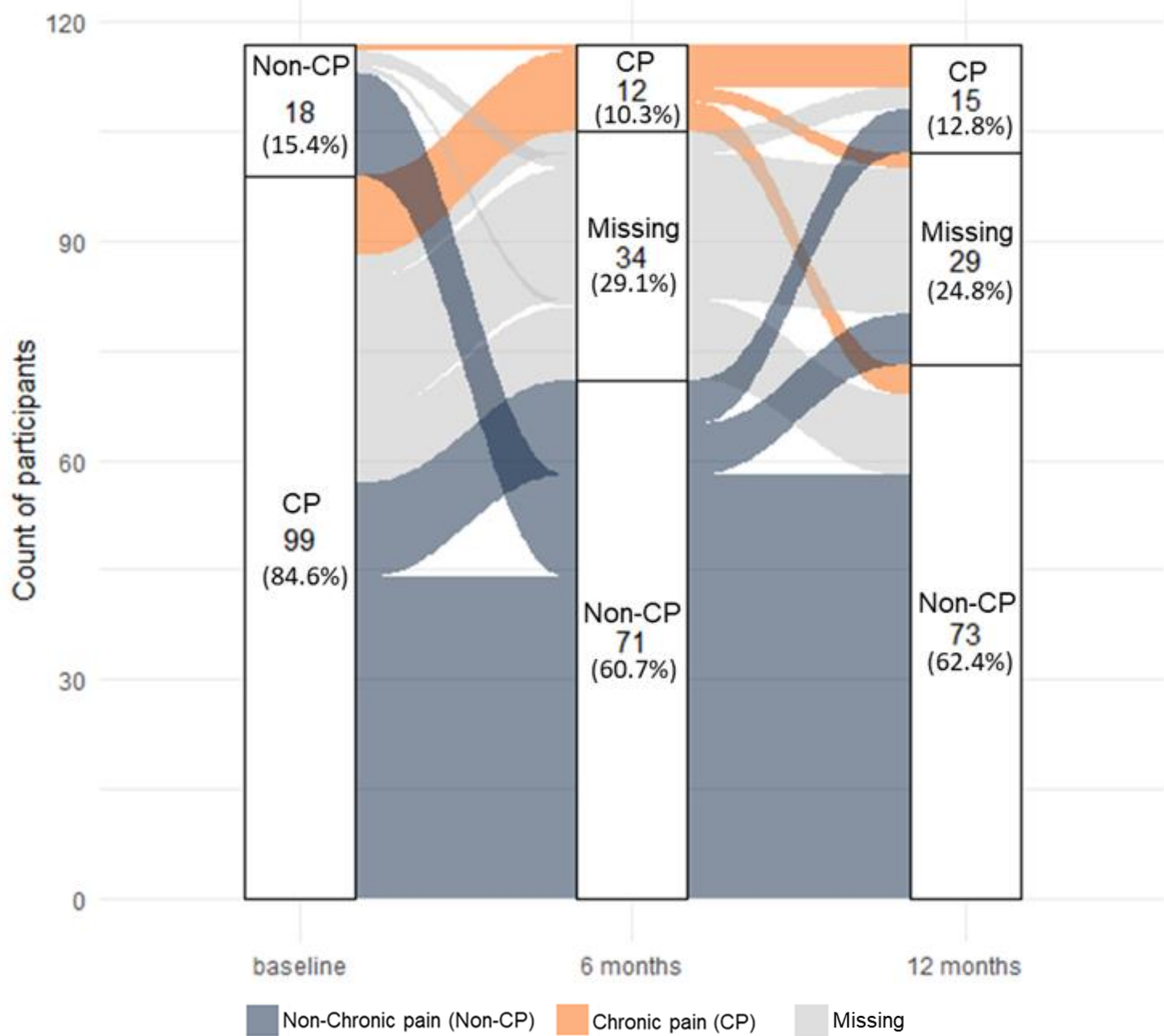


Figure 2: Counts of participants in chronic pain status over 12 months after TKR

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RESULTS

Variable	Chronic pain at 6 months (n=12, 14.5%)		Non-Chronic pain at 6 months (n=71, 85.5%)	
	N (%)	Mean	N (%)	Mean
Age	12	63.92	71	68.85
Gender				
Female	7 (58.33)		48 (67.61)	
Male	5 (41.67)		23 (32.39)	
CCI (continuous)	12	2.42	71	2.92
CCI (dichotomised)				
1-3	9 (75)		58 (81.69)	
4+	3 (25)		13 (18.31)	
AMTS	12	9.58	71	9.66
BMI				
Healthy Weight (<25)	1 (8.33)	23.46	8 (11.27)	23.86
Overweight (25-29.9)	3 (25)	29.28	25 (35.21)	27.67
Obese (30-34.9)	2 (16.67)	33.36	17 (23.94)	32.35
Morbidly Obese (>34.9)	6 (50)	39.84	21 (29.58)	38.56

AMTS: Abbreviated Mental Test Score; BMI: body mass index; CCI: Charlson Comorbidity

Figure 1: Trajectory of UCLA and EQ5D outcomes by chronic pain status

DISCUSSION and CONCLUSIONS

- Over 8% of the cohort who did not have chronic knee pain at 6 months, reported chronic pain at 12 months. This change in pain status may be viewed as unexpected, and might have potential economic implications.
- People with chronic pain post-TKR report poorer activity and health utilisation scores post-operatively. Monitoring for outcomes longer than 6 months, and interventions to promote recovery to mitigate the risk of chronic pain are therefore recommended to improve outcome.

