

RELATIONSHIP BETWEEN THE PSYCHOLOGICAL PROFILE AND BMI IN CHRONIC LOW BACK PAIN



Sinead Forde², Dominic A. Hegarty^{1,2}
¹ Pain Management, Orthopaedic & Spine centre, Mater Private Hospital, Cork, Ireland.
² School of Medicine, University College Cork, Ireland



Introduction

Pain catastrophizing, kinesiophobia and self-efficacy have all been implicated in the development and maintenance of chronic low back pain (cLBP). We examine the relationship between these psychological profiles and Body Mass Index (BMI) in those with cLBP.

Method:

A cross-sectional survey design adults with cLBP >3 months cLBP assessed demographics, pain catastrophizing, kinesiophobia, self-efficacy, pain intensity and disability. BMI was measured and individuals categorised as normal, overweight or obese.

Results:

Fifty adults with cLBP were studied (mean age 53 ± 10, n=50, 34 Female : 16 Male). Pain catastrophizing and kinesiophobia were correlated with pain intensity (r = .61, p<0.01; r = .59, p<0.01) and disability (r = .55, p<0.01; r = .66, p<0.01) respectively. Total self-efficacy also correlated significantly with pain intensity (r= -.43, p<0.01) and disability (r= -.36, p<0.05). A strong correlation existed between self-efficacy for function and disability (r= -.69, p<0.01) but not for pain symptoms and pain intensity. BMI did not correlate significantly with any of the psychological factors or outcomes. ANOVA Analysis revealed a statistically significant difference between the BMI groups and self-efficacy for pain symptoms (F(2,44) = 4.53, p<0.01) with a small effect size (0.17).

Conclusion:

A strong relationship with self-perceived disability outcomes and self-efficacy for function may prove to be a promising clinically relevant psychological markers when treating cLBP. A relationship between these variables and BMI groups was not established. Further research is warranted to investigate whether there is a meaningful variance in the psychological profiles of cLBP patients of different BMI groups.

Correlations between psychological factors and pain outcomes (N=50)									
	Mean (SD)	1	2	3	4	5	6	7	8
1. Pain Catastrophizing	24.9 (15.1)	1							
2. Kinesiophobia	44.7 (8.4)	.73**	1						
3. Self-Efficacy for Pain Sx	35.1 (16.4)	-.20	-.43**	1					
4. Self-Efficacy for Function	63.6 (19.9)	-.43**	-.56**	.37	1				
5. Self-Efficacy for Other Sx	45.8 (18.6)	-.55**	-.67**	.72**	.48**	1			
6. Pain Intensity	7 (2.1)	.61**	.59**	-.28	-.29*	-.47**	1		
7. Disability	16.3 (5.7)	.55**	.66**	-.29*	-.69**	-.39**	.29*	1	
8. BMI (kg)	29.8 (6.6)	-.06	-.18	.29	-.12	.21	-.15	.17	1

(* P <0.05, **p <0.01)