

Psychological and Competitive Determinants of Low Back Pain Knowledge Among Competitive Rowers

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OBJECTIVES

Low back pain (LBP) represents a substantial health and performance burden in rowing, with growing emphasis on prevention-oriented education and athlete health literacy. However, limited evidence exists on psychological and demographic determinants of LBP-related knowledge in competitive rowers.

METHODS

This cross-sectional study analyzed data from a self-collected survey sample of competitive rowers (N = 222), recruited from rowing clubs in Hungary. Data were collected at the club and individual athlete level. The primary outcome was a total score on the Low Back Pain Knowledge Questionnaire (LKQ). Linear regression model was executed with LKQ as dependent variable, and independent variables included age (years), sex (male/female), competitive status (club competitor vs. non-competitor), body dissatisfaction and bulimia subscales of the Eating Disorder Inventory (EDI), and competitive anxiety measured by the Sport Competition Anxiety Test (SCAT). Multivariable linear regression was applied.

RESULTS

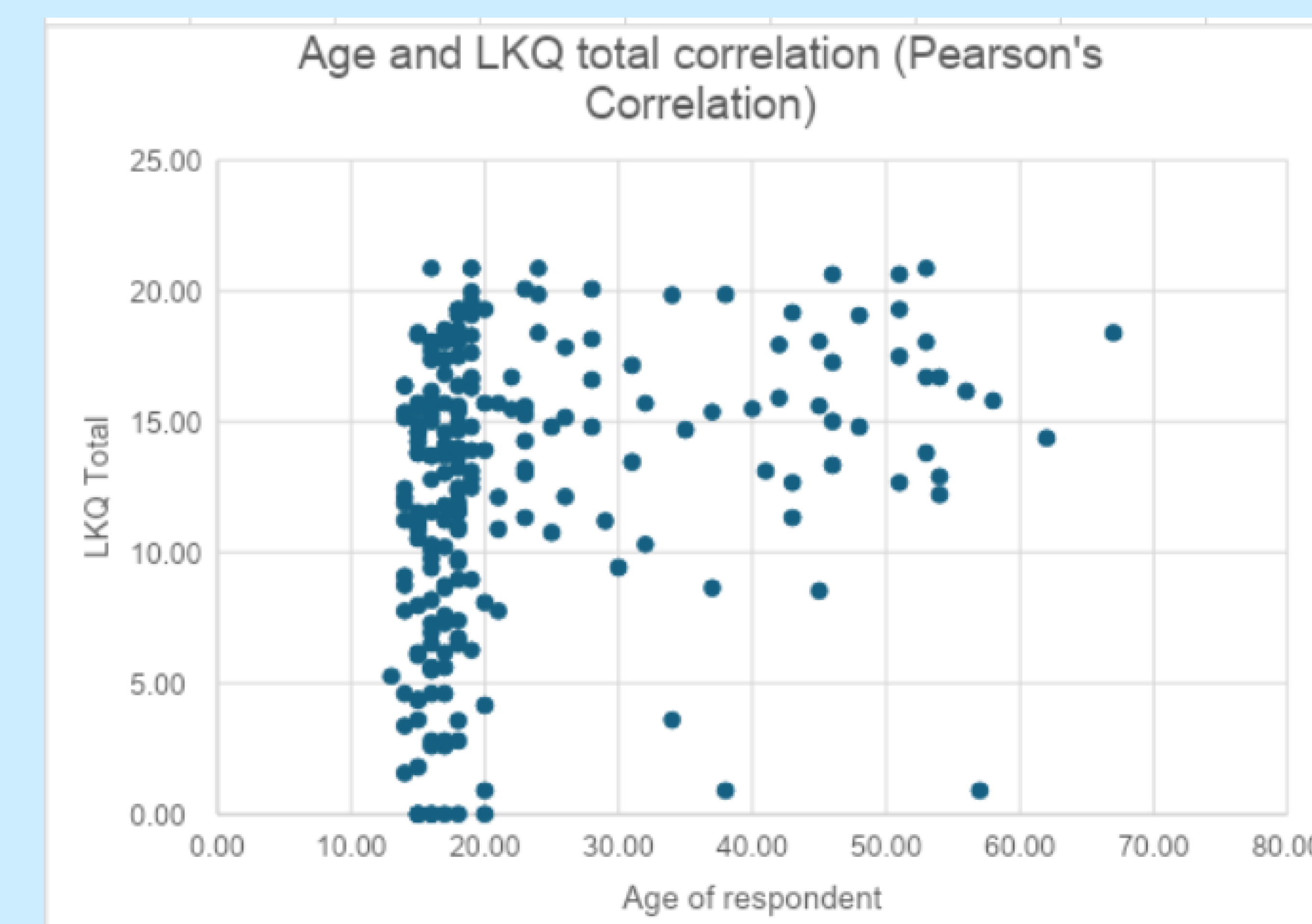
The linear regression model was significant ($p < 0.001$), the model explained 20.3% of variance ($R^2 = 0.203$). Mean LKQ total score was $[12,4236 \pm SD]$. Age showed a positive association with LKQ total (Beta = $[0.310]$, $p < [0.001]$). Female athletes demonstrated higher LKQ scores compared with males (Beta = 0.186 $p = 0.003$ ($[11.5414 \pm 5.67136]$ vs. $[13.4429 \pm 4,98714]$, $p = 0.009$). Club competitors had significantly lower LKQ scores than non-competitors (Beta = -0.174 , $p = 0.005$ $[13.6745 \pm 5.10153]$ vs. $[11.1728 \pm 5.49524]$, $p < 0.001$). Body dissatisfaction (Beta = $[-0.184]$, $p = [0.005]$) and bulimia subscale scores (Beta = $[-0.133]$, $p = [0.038]$) were negatively associated with LKQ total, while SCAT scores were positively associated (Beta = $[0.171]$, $p = [0.038]$).

CONCLUSIONS

LBP-related knowledge in rowers is influenced by demographic, competitive, and psychological factors. Integrating injury-prevention education with mental health and body image-sensitive interventions may improve athlete health literacy and support sustainable performance.

Adjusted R-square = 0.203					
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	5,189	2,593		2,001	0,047
age Age of respondent	0,136	0,029	0,301	4,745	0,000
sex Sex	2,018	0,680	0,186	2,966	0,003
int_club international / Club	-1,884	0,668	-0,174	-2,822	0,005
body_dissatisfaction Body Dissatisfaction sub-scale	-0,192	0,068	-0,184	-2,838	0,005
scat_martens SCAT Martens	0,247	0,094	0,171	2,638	0,009
bulimia Bulimia sub-scale	-0,214	0,103	-0,133	-2,084	0,038

a. Dependent Variable: lkq_total LKQ Total



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