TO DESCRIBE SUBJECTIVE UPPER LIMB DYSFUNCTIONS ONE MONTH POST-BREAST CANCER SURGERY AND ASSOCIATED MENTAL AND PHYSICAL FACTORS: PRELIMINARY RESULTS

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Background:

High prevalence rates of upper limb dysfunction have been described in breast cancer patients, with no clear view on the underlying mechanism. The objective of this study is to understand and identify the modifiable factors associated with upper limb function in breast cancer patients 1 month post-surgery.

Methods:

103 women with primary unilaterally breast cancer were assessed 3 till 6 weeks post-surgery
Upper limb dysfunctions were assessed using the QuickDASH questionnaire
8 possible associated factors

Results:

49/103 (48%) of the women described upper limb dysfunctions
The relation of the physical and mental factors to the subjective upper limb function was assessed using univariate linear regression analyses:

	Assessment method	Median	Inter Quartile Range	Linear regression analyses			
Upper limb dysfunction	QuickDASH questionnaire (0-100)	13.6	4.5 – 25.0	R	R square	P-value	
Physical associated factors							
Upper limb muscle force	Handgrip strength using Jamar hand-held dynamometer (Kg)	24.0	20.0 – 27.5	-0.209	0.044	0.034	Weak correlation
Pain severity	Mean pain severity score of the Brief Pain Inventory questionnaire (0-10)	0.0	0.0 – 3.0	0.378	0.143	<0.001	Moderate correlation
Mental associated factors							
Fear of movement	Sum of the score on the Tampa Scale of Kinesiophobia (11-44)	17.0	13.0 – 21.0	**0.553**	**0.306**	**<0.001**	**Strongest correlation**
Pain-related worrying	General score (sum of) the Pain Catastrophizing Scale (0-52)	5.0	0.0 – 13.0	0.255	0.065	0.009	Weak correlation
Depression	The subscore of the Depression, Anxiety and Stress Scale (DASS-21) were assessed (0-44)	3.0	0.0 – 6.50	0.471	0.222	<0.001	Moderate correlation
Anxiety		2.0	0.0 – 6.0	0.373	0.139	<0.001	Moderate correlation
Tension/stress state		3.0	2.0 – 12.0	0.239	0.057	0.015	Weak correlation
Self-efficacy	The sum of all items of the General Self-Efficacy Scale (10-40)	32.0	29.0 – 37.0	-0.146	0.021	0.140	No correlation

Conclusion:

Mental functions, especially fear of movement and depression are more strongly associated with the upper limb function 1-month post-surgery than the physical factor, the pain severity, and handgrip strength. These results emphasize the importance of addressing the mental functions during breast cancer treatment.

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