

Additional file 1:

Descriptive statistics of pain dimensions comparing the language versions

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1 Localizations (Tables A1-A3)

Table A1. Pain localizations in the last 3 months of the dancers in the total sample (n = 72) and in the language versions (n = 36 each)

	Total (n = 72) n (%)		English (n =36) n (%)		German (n = 36) n (%)		p-value	
Head and torso								
Head	7 (9.7)		1 (2.8)		6 (16.7)		0.12 ^b	
Neck /cervical spine	39 (54.2)		20 (55.6)		19 (52.8)		0.81 ^a	
Upper back/ thoracic spine	24 (33.3)		14 (38.9)		10 (27.8)		0.32 ^a	
Lower back/ lumbar spine/ iliosacral joint	47 (65.3)		24 (66.7)		23 (63.9)		0.80 ^a	
Stomach	5 (6.94)		2 (5.6)		3 (8.3)		1.00 ^b	
Upper extremity	right	left	right	left	right	left	right	left
Shoulder/ upper arm	13 (18.1)	13 (18.1)	8 (22.2)	8 (22.2)	5 (13.9)	5 (13.9)	0.36 ^a	0.36 ^a
Elbow/ forearm	7 (9.7)	5 (6.9)	5 (13.9)	2 (5.6)	2 (5.6)	3 (8.3)	0.43 ^b	1.00 ^b
Wrist/ hand	13 (18.1)	14 (19.4)	7 (19.4)	7 (19.4)	6 (16.7)	7 (19.4)	0.76 ^a	1.00 ^a
Lower extremity	right	left	right	left	right	left	right	left
Hip joint	17 (23.6)	26 (36.1)	10 (27.8)	15 (41.7)	7 (19.4)	11 (30.6)	0.41 ^a	0.33 ^a
Upper thigh	9 (12.5)	8 (11.1)	7 (19.4)	6 (16.7)	2 (5.6)	2 (5.6)	0.15 ^b	0.26 ^b
Knee	26 (36.1)	28 (38.9)	13 (36.1)	14 (38.9)	13 (36.1)	14 (38.9)	1.00 ^a	1.00 ^a
Lower leg	6 (8.3)	12 (16.7)	5 (13.9)	8 (22.2)	1 (2.8)	4 (11.1)	0.199 ^b	0.21 ^a
Ankle joint	16 (22.2)	22 (30.6)	9 (25.0)	12 (33.3)	7 (19.4)	10 (27.8)	0.57 ^a	0.61 ^a
Rear-/midfoot	9 (12.5)	8 (11.1)	4 (11.1)	3 (8.3)	5 (13.9)	5 (13.9)	1.00 ^b	0.71 ^b
Forefoot (right*)	15 (20.8)	17 (23.6)	4 (11.1)	6 (16.7)	11 (30.6)	11 (30.6)	0.04 ^a	0.17 ^a

^aChi²-test, ^bFisher's exact test, *p<0.05

Table A2. Most severely affected pain region of the dancers in the total sample (n = 72) and in the language versions (n = 36 each) according to superior categories of pain regions

	Total (n = 72) n (%)	English (n = 36) n (%)	German (n = 36) n (%)	p-value
Head and torso	30 (41.7)	13 (36.1)	17 (47.2)	0.64 ^b
Upper extremity	6 (8.3)	3 (8.3)	3 (8.3)	
Lower extremity	36 (50.0)	20 (55.6)	16 (44.4)	

^bFisher's exact test

Table A3. Accompanying symptoms of the most severely affected pain region (not = 0, somewhat = 1, fairly = 2, very = 3) of the dancers in the total sample (n = 72) and in the language versions (n = 36 each)

	Total (n = 72) \tilde{x} (IQR)	English (n = 36) \tilde{x} (IQR)	German (n = 36) \tilde{x} (IQR)	p-value
Tight/hard/tense	2.0 (2.0)	2.0 (2.0)	2.0 (2.0)	0.92 ^c
Restricted in mobility	2.0 (1.0)	2.0 (1.0)	2.0 (1.0)	0.61 ^c
Less resilient*	2.0 (1.0)	1.0 (1.5)	2.0 (0)	0.00 ^c

^cMann-Whitney-U-test; *p<0.05

2 Subjective sensation of pain (Table A4)

Table A4. Sensory and affective pain quality (does not apply = 0, applies a little = 1, applies mostly = 2, applies exactly = 3) of the dancers in the total sample (n = 72) and in the language versions (n = 36 each)

	Total (n = 72) \tilde{x} (IQR) Missing [n (%)]	English (n = 36) \tilde{x} (IQR) Missing [n (%)]	German (n = 36) \tilde{x} (IQR) Missing [n (%)]	p-value
Sensory pain quality				
Dull	0 (1.0) [4 (5.6)]	0 (1.0) [2 (5.6)]	0.5 (1.0) [2 (5.6)]	0.38 ^c
Pressing	1.0 (2.0) [5 (6.9)]	1.0 (1.0) [3 (8.3)]	1.0 (2.0) [2 (5.6)]	0.55 ^c
Cramping	0.5 (1.0) [4 (5.6)]	0 (1.0) [3 (8.3)]	1.0 (2.0) [1 (2.8)]	0.28 ^c
Pulling	1.0 (2.0) [2 (2.8)]	1.0 (2.0) [2 (5.6)]	2.0 (1.5) -	0.69 ^c
Tearing	0 (2.0) [4 (5.6)]	1.0 (2.0) [3 (8.3)]	0 (2.0) [1 (2.8)]	0.48 ^c
Shooting*	0 (1.0) [4 (5.6)]	0 (0) [3 (8.3)]	1.0 (3.0) [1 (2.8)]	0.002 ^c
Stabbing	0 (2.0) [6 (8.3)]	0 (2.0) [4 (11.1)]	1.0 (2.0) [2 (5.6)]	0.34 ^c
Sharp	0 (2.0) [2 (2.8)]	1.0 (2.0) [1 (2.8)]	0 (2.0) [1 (2.8)]	0.93 ^c

Affective pain quality				
Tiring/exhausting	1.0 (2.0) [2 (2.8)]	1.0 (2.0) [2 (5.6)]	1.0 (2.0) -	0.67 ^c
Fearful*	0 (1.0) [4 (5.6)]	0 (1.0) [2 (5.6)]	0.5 (2.0) [2 (5.6)]	0.046 ^c
Wretched	0 (1.0) [6 (8.3)]	0 (0) [3 (8.3)]	0 (1.0) [3 (8.3)]	0.12 ^c
Terrible	0 (1.0) [5 (6.9)]	0 (1.0) [3 (8.3)]	0 (1.0) [2 (5.6)]	0.67 ^c
Paralyzing	0 (1.0) [5 (6.9)]	0 (1.0) [3 (8.3)]	0 (1.0) [2 (5.6)]	0.49 ^c
Unbearable	0 (1.0) [4 (5.6)]	0 (1.0) [2 (5.6)]	0 (1.0) [2 (5.6)]	0.99 ^c

\tilde{x} = median, IQR = interquartile range, ^cMann-Whitney-U-test; *p<0.05

3 Temporal course of pain (Table A5)

Table A5. Pain duration, pain frequency (only once = 0, rarely = 1, frequently = 2, permanently = 3), type of pain occurrence, pain occurrence under mechanical stimuli (rarely = 1, frequently = 2, permanently = 3) of the dancers in the total sample (n = 72) and in the language versions (n = 36 each)

	Total (n = 72)	English (n = 36)	German (n = 36)	p-value
Pain duration n (%)				
Maximum of one week	9 (12.5)	6 (16.7)	3 (8.3)	0.86 ^b
Between one and 6 weeks	11 (15.3)	6 (16.7)	5 (13.9)	
Between 6 and 12 weeks	8 (11.1)	4 (11.1)	4 (11.1)	
Between 3 and 6 months	13 (18.1)	7 (19.4)	6 (17.7)	
Longer than 6 months	29 (40.3)	13 (36.1)	16 (44.4)	
Missing [n (%)]	[2 (2.8)]	-	[2 (5.6)]	
Pain frequency \tilde{x} (IQR) Missing [n (%)]	2.0 (0) [2 (2.8)]	2.0 (1.0) -	2.0 (0) [2 (5.6)]	0.27 ^c
Type of pain occurrence n (%)				
Suddenly/ a single event	9 (12.5)	6 (16.7)	3 (8.3)	0.48 ^b
Over time/ creeping	41 (56.9)	19 (52.8)	22 (61.1)	
Within 24 hours after work	12 (16.7)	7 (19.4)	5 (13.9)	
In another way	9 (12.5)	3 (8.3)	6 (16.7)	
Missing [n (%)]	[1 (1.4)]	[1 (2.8)]	-	

Pain occurrence under mechanical stimuli \tilde{x} (IQR), Missing [n (%)]				
When weight-bearing*	2.0 (0) [4 (5.6)]	2.0 (1.0) [2 (5.6)]	2.0 (1.0) [2 (5.6)]	0.01 ^c
During movement	2.0 (1.0) [5 (6.9)]	2.0 (1.0) [1 (2.8)]	2.0 (0) [4 (11.1)]	0.46 ^c
At rest	1.0 (1.0) [3 (4.2)]	1.0 (1.0) [3 (8.3)]	1.0 (1.0) -	0.72 ^c

\tilde{x} = median, IQR = interquartile range; ^bFisher's exact test, ^cMann-Whitney-U-test; *p<0.05

4 Pain behavior (Table A6)

Table A6. Psychosocial motives of working with pain (does not apply = 0, applies a little = 1, applies mostly = 2, applies exactly = 3) of the dancers in the total sample (n = 71) and in the language versions (English: n = 35, German: n = 36)

	Total (n = 71) \tilde{x} (IQR) Missing [n (%)]	English (n = 35) \tilde{x} (IQR) Missing [n (%)]	German (n = 36) \tilde{x} (IQR) Missing [n (%)]	p-value
The pain's not so bad, so there's no need for a break.*	1.0 (1.0) [2 (2.8)]	2.0 (1.0) [1 (2.9)]	1.0 (2.0) [1 (2.9)]	0.04 ^c
The pain is a natural consequence of dancing.	1.0 (1.0) [1 (1.4)]	1.0 (1.0) -	1.0 (2.0) [1 (2.8)]	0.78 ^c
I don't want to let my company down.	2.0 (2.0) [2 (2.8)]	2.0 (2.0) -	1.0 (3.0) [2 (5.6)]	0.97 ^c
I feel existential/ financial pressure.*	1.0 (2.0) [2 (2.8)]	0 (1.0) [1 (2.9)]	2.0 (3.0) [1 (2.8)]	0.0001 ^c
I feel pressure from superiors (training leader, choreographer).	0 (2.0) [2 (2.8)]	1.0 (1.0) -	0 (2.0) [2 (5.6)]	0.51 ^c
I feel pressure from colleagues.	0 (1.0) [3 (4.2)]	0 (1.0) [1 (2.9)]	0 (1.0) [2 (5.6)]	0.55 ^c
I don't want to be considered unreliable.	1 (3.0) [2 (2.8)]	2.0 (2.0) -	1.0 (3.0) [2 (5.6)]	0.61 ^c
I don't want to lose my role.	1.0 (2.0) [3 (4.2)]	1.0 (2.0) [1 (2.9)]	1.5 (3.0) [2 (5.6)]	0.49 ^c
I don't want to lose my status.*	1.0 (2.0) [2 (2.8)]	0 (2.0) [1 (2.9)]	2.0 (3.0) [1 (2.8)]	0.02 ^c
I have concerns my dancing skills are going down.*	1.0 (2.0) [2 (2.8)]	0 (2.0) [1 (2.9)]	1.0 (2.0) [1 (2.8)]	0.02 ^c
I have concerns my body is getting out of its aesthetic form.	1.0 (2.0) [2 (2.8)]	0 (1.0) [1 (2.9)]	1.0 (2.0) [1 (2.8)]	0.19 ^c
I want to impress the audience.	0 (1.0) [3 (4.2)]	0 (1.0) [1 (2.9)]	0 (1.0) [2 (5.6)]	0.31 ^c

Dancing is more important to me than my health.	0 (1.0) [3 (4.2)]	0 (1.0) [1 (2.9)]	1.0 (1.0) [2 (5.6)]	0.11 ^c
Dancing is my passion – I just have to keep dancing.	1.0 (2.5) [3 (4.2)]	1 (2.0) [1 (2.9)]	2.0 (2.0) [2 (5.6)]	0.16 ^c

\tilde{x} = median, IQR = interquartile range, ^cMann-Whitney-U-test; *p<0.05