Table 1: Socio-demographic profile of the sample

Socio-demographic Characteristics	Orthopedics (n = 216)	Pain Clinic (n = 109)	Group difference
Gender			
Male	47.7	43.6	2.52
Female	52.3	55.4	
Age in year; M (SD)	39.72 (13.88)	54.69 (16.11)	5.69***
18-29	15.0	1.0	
30-39	26.2	16.0	
40-49	30.6	21.0	
50-59	24.8	26.0	
≥60	3.4	36.0	
Monthly household income[a]			
<HK$15,000	40.4	62.2	15.28**
$15,000-$24,999	29.0	15.9	
$25,000-$39,999	17.1	8.5	
$40,000-$59,999	3.6	7.3	
≥$60,000	9.8	6.1	
Marital status			
Never married	38.1	17.2	22.02***
Married/Cohabiting	53.5	63.6	
Divorced/Separated	7.0	10.1	
Widowed	1.4	9.1	
Education level			
No schooling/Pre-primary	0.9	13.1	49.21***
Primary	8.8	25.3	
Secondary	53.0	48.5	
Matriculation	6.5	1.0	
Post-secondary	9.3	6.1	
Tertiary	21.4	6.1	
Religion			
No religion	58.3	50.5	3.00
Catholic	6.0	5.1	
Christian	10.6	10.1	
Buddhism/Daoism/Ancestor Worship	25.0	34.3	
Others			
Employment status			
Full time	59.7	28.0	60.47***
Part time	4.6	4.0	
Retired	4.2	31.0	
Unemployed	12.0	17.0	
Housewife	14.4	2.0	
Student	2.8	0	
Others	2.3	0	

Note: Figures are percentages unless otherwise stated. Mean differences analyzed with *t*-test and proportional differences analyzed with chi-square test.
[a] $1 U.S. = $7.8 HK.

Table 2: Pain characteristics of the sample

Pain Characteristics	Orthopedics (n = 216)	Pain Clinic (n = 109)	Group difference
Pursuing litigation because of pain	13.0	23.2	5.19*
Pursuing medico-legal compensation because of pain	10.3	17.3	3.01
Whether pain is the reason for the first clinic visit			
No	9.7	6.1	34.10***
Yes, pain is the main reason	84.3	63.6	
Yes, pain is one of the symptoms, but not the main reason	6.0	30.3	
Number of pain sites; M (SD)	2.21 (1.77)	1.84 (1.01)	1.94
1	38.2	39.6	
2	26.4	40.6	
3-5	29.9	18.8	
≥6	5.6	0.9	
Pain site			
Head	3.8	8.3	2.46
Face	0.6	4.6	4.63*
Neck	24.5	17.4	1.92
Shoulder	27.7	12.8	8.39**
Arm	32.1	17.4	7.19**
Chest	3.8	3.7	0.01
Upper back	16.4	15.6	0.03
Low back	26.4	33.0	1.37
Pelvis	18.2	11.9	1.95
Knee	8.2	9.2	0.08
Leg	37.1	32.1	0.71
Muscle	15.7	3.7	9.74**
Pain duration (days); M (SD)	1835 (2398)	2680 (2918)	3.32**
≥ 3 months - 2 years	52.8	25.7	
> 2 years - 5 years	16.2	35.6	
> 5 years - 10 years	18.1	17.8	
> 10 years	13.0	20.8	
Pain intensity[a]; M (SD)			
Present pain	4.35 (2.50)	5.32 (2.74)	-3.12**
Average pain	5.20 (1.87)	5.99 (2.04)	-2.77**
Worst pain	7.61 (2.10)	8.42 (1.98)	-2.73**
Pain interference[b]; M (SD)			
Daily activities	5.50 (2.37)	5.67 (3.39)	-0.53
Social activities	4.89 (2.83)	5.44 (3.44)	-1.49
Working ability	5.37 (3.05)	5.84 (3.65)	-0.95
Pain associated disability (days); M (SD)	27.65 (79.65)	28.01 (39.13)	0.55
Pain associated sick leave (days); M (SD)	19.01 (62.08)	20.67 (36.68)	0.93
Chronic Pain Grade classification[c]			
Grade I	29.2	10.1	11.55**
Grade II	25.8	32.3	
Grade III	29.2	33.3	
Grade IV	15.7	24.2	

Psychological distress; M (SD)			
HADS-Depression	4.40 (3.86)	7.57 (5.41)	-5.92***
HADS-Anxiety	6.35 (4.68)	7.95 (5.45)	-2.66**
HADS-Total	10.74 (7.91)	15.36 (9.97)	-4.39***
Fear of movement/(re)injury; M (SD)			
TSK11-SF	13.73 (1.88)	13.49 (1.70)	1.11
TSK11-AA	16.42 (2.01)	15.96 (2.06)	1.95
TSK11-Total	30.13 (3.25)	29.36 (3.03)	1.12
TSK4	11.36 (1.50)	11.06 (1.41)	1.67

Note: Figures are percentages unless otherwise stated. Mean differences analyzed with *t*-test for two-group comparison; proportional differences analyzed with chi-square test. The pain intensity and pain interference scores were drawn from individual items of the Chronic Pain Grade questionnaire. HADS: Hospital Anxiety and Depression Scale; HADS-D: HADS depression subscale; HADS-A: HADS anxiety subscale. TSK: The Chinese version of the Tampa Scale for Kinesiophobia; SF: Somatic Focus subscale; AA: Activity Avoidance subscale.

[a] Scores range from 0-10; higher scores indicate higher intensity of pain.

[b] Scores range from 0-10; higher scores indicate higher level of interference.

[c] Grade I: low disability-low intensity; Grade II: low disability-high intensity; Grade III: high disability-moderately limiting; Grade IV: high disability-severely limiting.

Table 3: Results of CFAs testing factorial validity of nine competing models applied to the Chinese version of TSK for the orthopedics and pain clinic sample independently

Model	S-Bχ^2	*df*	*P* value	CFI	NFI	RMSEA	90% CI
Orthopedics Sample							
1. Five-factor Hierarchical Model (Vlaeyen et al. [7])	90.415	49	<0.001	0.786	0.712	0.058	0.039, 0.077
2. Four-factor Correlated Model (Vlaeyen et al. [7])	83.038	48	0.001	0.819	0.750	0.054	0.034, 0.073
3. Three-factor Hierarchical Model (Clark et al. [16])	146.324	62	<0.001	0.721	0.649	0.074	0.058, 0.089
4. Two-factor Correlated Model (Clark et al. [16])	92.625	64	0.011	0.825	0.787	0.042	0.021, 0.060
5. Three-factor Hierarchical Model (Swinkels-Meewissee et al. [10])	371.92	101	<0.001	0.401	0.288	0.105	0.093, 0.116
6. Two-factor Correlated Model (Swinkels-Meewissee et al.[10])	176.337	103	<0.001	0.559	0.473	0.064	0.050, 0.077
7. Three-factor Hierarchical Model (Roelofs et al. [21])	76.997	41	0.001	0.798	0.728	0.059	0.038, 0.079
8. Two-factor Correlated Model (Roelofs et al. [21])	49.593	43	<0.001	0.930	0.911	0.025	0.000, 0.051
9. One-factor Four-Item Model (Burwinkle et al. [24]	38.992	9	<0.001	0.213	0.364	0.146	0.103, 0.192
Pain Clinic Sample							
10. Five-Factor Hierarchical Model (Vlaeyen et al. [7])	71.89	49	0.018	0.805	0.738	0.069	0.029, 0.101
11. Four-Factor Correlated Model (Vlaeyen et al. [7])	70.78	48	0.017	0.806	0.733	0.070	0.030, 0.102
12. Three-Factor Hierarchical Model (Clark et al. [16])	105.94	62	<0.001	0.702	0.625	0.085	0.056, 0.111
13. Two-Factor Correlated Model (Clark et al. [16])	75.226	64	0.159	0.815	0.774	0.042	0.000, 0.076
14. Three-Factor Hierarchical Model (Swinkels-Meewissee et al. [10])	181.611	101	<0.001	0.487	0.391	0.090	0.068, 0.110
15. Two-Factor Correlated Model (Swinkels-Meewissee et al. [10])	124.142	103	0.076	0.611	0.547	0.046	0.000, 0.072
16. Three-factor Hierarchical Model (Roelofs et al. [21])	62.715	41	0.016	0.801	0.734	0.074	0.032, 0.108
17. Two-factor Correlated Model (Roelofs et al. [21])	62.715	43	0.026	0.820	0.769	0.068	0.024, 0.103
18. One-factor Four-Item Model (Burwinkle et al. [24]	22.048	9	0.291	0.971	0.912	0.048	0.000, 0.209

Note: TSK: Tampa Scale for Kinesiophobia; S-Bχ^2: Satorra and Bentler scaled chi-square statistics; *df*: Degrees of freedom; CFI: Comparative fit index; NIF: Normed fit index; RMSEA: Root mean square error of approximation; CI: Confidence interval.

Table 4: Standardized factor loadings of the two-factor correlated model for the Chinese version of TSK11 for the orthopedics sample (n = 216)

Item	Somatic Focus	Activity Avoidance
1. I'm afraid that I might injure myself if I exercise.	-	0.33
2. If I were to try to overcome it, my pain would increase.	-	0.38
3. My body is telling me I have something dangerously wrong.	0.44	-
5. People aren't taking my medical condition seriously enough.	0.33	-
6. My accident has put my body at risk for the rest of my life.	0.61	-
7. Pain always means I have injured my body.	0.56	-
10. Simply being careful that I do not make unnecessary movements is the safest thing I can do to prevent my pain from worsening.	-	0.30
11. I wouldn't have this much pain if there weren't something potentially dangerous going on in my body.	0.16	-
13. Pain lets me know when to stop exercising so that I don't injure myself.	-	0.30
15. I can't do all the things normal people do because it's too easy for me to get injured.	-	0.47
17. No one should have to exercise when he/she is in pain.	-	0.17

Note: TSK11: The 11-item version of Tampa Scale of Kinesiophobia. Item numbers refer to items as reported by Vlaeyen et al.[7]. Item 4, 8, 9, 12, 14 and 16 are not shown as they were not included in the 11-item shortened version reported by Roelofs et al. [21].

Table 5: Standardized factor loadings of the one-factor correlated model for the Chinese version of TSK4 for the pain clinic sample (n = 109)

Item	Kinesiophobia
3. My body is telling me I have something dangerously wrong.	0.54
6. My accident has put my body at risk for the rest of my life.	0.41
7. Pain always means I have injured my body.	0.78
11. I wouldn't have this much pain if there weren't something potentially dangerous going on in my body.	0.13

Note: TSK4: The 4-item version of Tampa Scale of Kinesiophobia. Item numbers refer to items as reported by Vlaeyen et al.[7]. Item 4, 8, 9, 12, 14 and 16 are not shown as they were not included in the 11-item shortened version reported by Roelofs et al. [21].

Table 6: Correlation coefficients of TSK11, pain intensity, pain interference, and HADS scores for the orthopedics sample (n = 216)

	1	2	3	4	5	6	7	8	9	10	11
1. TSK11-AA	---										
2. TSK11-SF	0.37**										
3. TSK11-Total	0.85**	0.81**									
4. Pain intensity-Present Pain	0.08	0.16*	0.14*								
5. Pain intensity-Average Pain	0.23*	0.28**	0.30**	0.61**							
6. Pain intensity-Worst Pain	0.10	0.15	0.15	0.33**	0.61**						
7. Pain interference-Daily activities	0.17*	0.26**	0.24**	0.52**	0.45**	0.43**					
8. Pain interference-Social activities	0.22**	0.31**	0.31**	0.43**	0.42**	0.43**	0.75**				
9. Pain interference-Working abilities	0.16	0.19	0.20	0.37**	0.59**	0.62**	0.53**	0.59**			
10. HADS-Depression	0.13	0.22**	0.21**	0.37**	0.38**	0.29**	0.24**	0.24**	0.41**		
11. HADS-Anxiety	0.19**	0.31**	0.30**	0.37**	0.48**	0.32**	0.23**	0.26**	0.35**	0.71**	
12. HADS-Total	0.18*	0.29**	0.28**	0.40**	0.46**	0.32**	0.25**	0.27**	0.40**	0.91**	0.94**

Note: TSK11: The 11-item version of Tampa Scale for Kinesiophobia; AA: Activity Avoidance; SF: Somatic Focus; HADS: Hospital Anxiety and Depression Scale. The pain intensity and pain interference scores were drawn from individual items of the Chronic Pain Grade questionnaire.
*$p < 0.05$; $p < 0.01$.

Table 7: Correlation coefficients of TSK4, pain intensity, pain interference, and HADS scores for the pain clinic sample (n = 109)

	1	2	3	4	5	6	7	8	9
1. TSK4	---								
2. Pain intensity-Present Pain	0.20**								
3. Pain intensity-Average Pain	0.27**	0.69**							
4. Pain intensity-Worst Pain	0.20**	0.44**	0.70**						
5. Pain interference-Daily activities	0.25**	0.44**	0.45**	0.46**					
6. Pain interference-Social activities	0.25**	0.37**	0.44**	0.46**	0.66**				
7. Pain interference-Working abilities	0.25**	0.35**	0.44**	0.47**	0.53**	0.49**			
8. HADS-Depression	0.28**	0.30**	0.36**	0.33**	0.29**	0.31**	0.38**		
9. HADS-Anxiety	0.35**	0.39**	0.47**	0.40**	0.30**	0.30**	0.33**	0.71**	
10. HADS-Total	0.35**	0.38**	0.46**	0.40**	0.32**	0.33**	0.32**	0.92**	0.93**

Note: TSK4: The 4-item version of Tampa Scale for Kinesiophobia; HADS: Hospital Anxiety and Depression Scale. The pain intensity and pain interference scores were drawn from individual items of the Chronic Pain Grade questionnaire.
*$p < 0.05$; $p < 0.01$.