Supplementary Table 1. Participants' characteristics in the training and testing datasets.

Characteristics	Training dataset (n = 2764)	Testing dataset (n = 691)
Demographics		
Age	53.0 (13.3)	52.9 (13.0)
Gender		
Female	2521 (91.2%)	630 (91.2%)
Male	243 (8.8%)	61 (8.8%)
Site		
America	1363 (49.3%)	338 (48.9%)
Asia	682 (24.7%)	172 (24.9%)
Europe	719 (26.0%)	181 (26.2%)
Ethnicity		
Asian	782 (28.3%)	190 (27.5%)
White	387 (14.0%)	101 (14.6%)
Others	1595 (57.7%)	400 (57.9%)
Education		
College and above	1634 (59.1%)	401 (58.0%)
High school and below	1130 (40.9%)	290 (42.0%)
Employment		
Not working	1054 (38.1%)	263 (38.1%)
Working	1709 (61.8%)	428 (61.9%)
Smoking		
Current	259 (9.4%)	66 (9.6%)
Ever	848 (30.7%)	230 (33.3%)
Never	1657 (59.9%)	395 (57.2%)
Self-reported general health		
Excellent	46 (1.7%)	18 (2.6%)
Very Good	403 (14.6%)	96 (13.9%)

Good	954 (34.5%)	235 (34.0%)
Fair	1033 (37.4%)	262 (37.9%)
Poor	327 (11.8%)	80 (11.6%)
Medical history		
Sjögren's disease	1219 (44.1%)	298 (43.1%)
Any thyroid diseases	493 (17.8%)	112 (16.2%)
Any liver diseases	95 (3.4%)	21 (3.0%)
Any kidney diseases	59 (2.1%)	13 (1.9%)
Diabetes	130 (4.7%)	18 (2.6%)
Neuropathic pain		
Tingling sensation	1156 (41.8%)	300 (43.4%)
Sharp pain sensation	1051 (38.0%)	246 (35.6%)
Pain interference with work		
Not at all	698 (25.3%)	181 (26.2%)
A little bit	611 (22.1%)	134 (19.4%)
Moderately	591 (21.4%)	143 (20.7%)
Quite a bit	619 (22.4%)	172 (24.9%)
Extremely	244 (8.8%)	61 (8.8%)
Oral pain	463 (16.8%)	124 (17.9%)
Neuropathic pain score	2.09 (1.70)	2.11 (1.75)
Any rheumatologic diseases	679 (24.6%)	169 (24.5%)
Musculoskeletal or nervous system symptoms	2559 (92.6%)	647 (93.6%)
Any sensory symptoms	1677 (60.7%)	410 (59.3%)
Medication use		
Artificial tears	1750 (63.3%)	448 (64.8%)
Punctal occlusion	259 (9.4%)	67 (9.7%)
Steroid drops	104 (3.8%)	29 (4.2%)
Antibiotic drops	159 (5.8%)	35 (5.1%)

Cyclosporine drops	264 (9.6%)	72 (10.4%)
Anticholinergic drops	816 (29.5%)	227 (32.9%)
Thyroid replacement	419 (15.2%)	100 (14.5%)
Immunomodulating drugs	1159 (41.9%)	293 (42.4%)
Health-related quality of life		
Physical function	42.8 (12.3)	42.6 (12.6)
Physical role functioning	41.0 (11.6)	41.0 (11.7)
Bodily pain	40.4 (13.3)	40.0 (13.5)
General health	37.9 (11.8)	38.0 (11.9)
Vitality	44.6 (11.6)	44.8 (11.9)
Social functioning	42.9 (12.3)	42.7 (12.6)
Emotional role funcioning	42.6 (12.4)	42.4 (12.9)
Mental health	45.2 (11.2)	44.8 (11.5)
PCS	40.0 (12.1)	40.1 (12.2)
MCS	45.2 (11.3)	44.9 (11.8)
PHQ9		
No depression	1062 (38.4%)	255 (36.9%)
Mild depression	744 (26.9%)	184 (26.6%)
Moderate depression	463 (16.8%)	114 (16.5%)
Moderately severe depression	228 (8.2%)	69 (10.0%)
Severe depression	140 (5.1%)	34 (4.9%)

Abbreviations: MCS, mental component measure; PCS, physical component measure; PHQ-9, 9-item patient health questionnaire; SICCA, Sjögren's International Collaborative Clinical Alliance.
The percentages for each variable within each column may not sum up to 100% due to missing data and rounding.