

Table 1: Pain characteristics of the sample

Pain Characteristics	Orthopedics (n = 185)	Pain Clinic (n = 181)	Group difference^a
Pursuing litigation because of pain	22.7	41.4	14.76***
Pursuing or having received medico-legal compensation because of pain	18.4	38.1	17.64***
Whether pain is the reason for the first clinic visit			
No	2.2	2.3	8.28*
Yes, pain is the main reason	91.8	82.5	
Yes, pain is one of the symptoms, but not the main reason	6.0	15.3	
Pain duration (days); M (SD)	929 (1316)	1938 (2455)	-4.87***
≥ 3 months - 2 years	59.6	37.4	
> 2 years - 5 years	23.4	38.5	
> 5 years - 10 years	12.1	13.4	
> 10 years	5.0	10.6	
Number of pain sites; M (SD)	1.62 (0.93)	3.02 (2.20)	-7.88***
1	59.3	24.4	
2	26.9	26.1	
3-5	13.7	37.8	
≥6	0.0	11.7	
Pain intensity^b; M (SD)			
Present pain	3.29 (2.78)	5.10 (2.69)	-6.34***
Average pain	4.69 (2.06)	6.38 (1.69)	-8.61***
Worst pain	7.52 (2.36)	8.89 (1.48)	-6.67***
Pain interference^c; M (SD)			
Daily activities	4.79 (2.77)	6.67 (2.40)	-6.91***
Social activities	4.28 (3.27)	6.77 (2.86)	-7.76***
Working ability	5.72 (3.36)	7.48 (2.91)	-5.35***
Pain associated disability (days); M (SD)	11.76 (25.79)	38.83 (42.63)	-6.82***
Pain associated sick leave (days); M (SD)	12.57 (26.65)	25.19 (38.51)	-3.40**
Chronic Pain Grade classification^d			
Grade zero	---	---	67.18***
Grade I	33.0	6.7	
Grade II	24.9	13.3	
Grade III	25.9	32.8	
Grade IV	16.2	47.2	
ICD-10 Diagnostic categories—Depression	20.2	57.8	53.89***
BDI; M (SD)^e	9.48 (8.31)	19.69 (11.99)	-9.20***
BDI-SF; M (SD)^f	5.14 (5.36)	11.60 (8.59)	-8.51***
CES-D; M (SD)^g	14.85 (12.96)	29.35 (15.76)	-9.51***

Note: Figures are percentages unless otherwise stated. The pain intensity and pain interference scores were drawn from individual items of the Chronic Pain Grade questionnaire.

^a Differences in means analyzed with *t*-test; differences in proportions analyzed with chi-square tests. Numbers shown are *t* or χ^2 values.

^b Scores range from 0-10; higher scores indicate higher intensity of pain.

^c Scores range from 0-10; higher scores indicate higher level of interference.

^d Grade zero: pain free; Grade I: low disability-low intensity; Grade II: low disability-high intensity; Grade III: high

disability-moderately limiting; Grade IV: high disability-severely limiting.

^e Scores range from 0-63; higher scores indicate more depressive symptoms.

^f Scores range from 0-39; higher scores indicate more depressive symptoms.

^g Scores range from 0-60; higher scores indicate more depressive symptoms.

n.s.: not significant

* $P < 0.05$

** $P < 0.01$

*** $P < 0.001$

Table 2: Comparison of Means and Standard Deviations on the BDI, BDI-SF, and CES-D between depressed and non-depressed patients by clinic

Instruments	Depressed	Nondepressed	<i>t</i> -tests
Orthopedics; M (SD)			
BDI ^a	20.9 (8.4)	6.5 (5.2)	9.91***
BDI-SF ^b	12.1 (6.0)	3.3 (3.4)	8.59***
CES-D ^c	32.2 (11.7)	10.3 (8.8)	10.66***
Pain clinic; M (SD)			
BDI ^a	26.3 (10.5)	10.6 (6.9)	11.68***
BDI-SF ^b	16.1 (7.7)	5.3 (5.2)	11.10***
CES-D ^c	38.7 (11.3)	16.3 (11.2)	13.02***
Entire sample; M (SD)			
BDI ^a	24.8 (10.2)	7.9 (6.1)	17.34***
BDI-SF ^b	15.1 (7.5)	4.0 (4.2)	15.90***
CES-D ^c	37.0 (11.7)	12.3 (10.1)	20.45***

Note: BDI: Beck Depression Inventory; BDI-SF; Beck Depression Inventory-Short Form; CES-D: Center for Epidemiological Studies-Depression. Depressed case was determined based on the ICD-10 CIS-R score.

^a Scores range from 0-63; higher scores indicate more depressive symptoms.

^b Scores range from 0-39; higher scores indicate more depressive symptoms.

^c Scores range from 0-60; higher scores indicate more depressive symptoms.

*** $P < 0.001$

Table 3: Performance of the BDI, BDI-SF, and CES-D at various cutoff scores for the Orthopedics Clinic, Pain Clinic, and the entire sample

Cutoff score	<u>Orthopedics Clinic (n = 185)</u>					<u>Pain Clinic (n = 181)</u>					<u>Entire Sample (n = 366)</u>				
	Sensitivity	Specificity	PPV	NPV	Eff	Sensitivity	Specificity	PPV	NPV	Eff	Sensitivity	Specificity	PPV	NPV	Eff
BDI^a	AUC = 0.93 (95% CI: 0.89, 0.98)					AUC = 0.89 (95% CI: 0.85, 0.94)					AUC = 0.92 (95% CI: 0.87, 0.98)				
10/11	0.95	0.78	0.52	0.98	0.81	0.95	0.55	0.74	0.89	0.78	0.95	0.70	0.66	0.96	0.80
11/12	0.92	0.81	0.56	0.97	0.83	0.94	0.56	0.75	0.87	0.78	0.93	0.73	0.68	0.95	0.81
12/13	0.84	0.87	0.62	0.95	0.86	0.91	0.59	0.75	0.82	0.77	0.89	0.78	0.71	0.92	0.82
13/14	0.76	0.89	0.64	0.93	0.86	0.90	0.66	0.78	0.82	0.80	0.86	0.81	0.74	0.90	0.83
14/15	0.76	0.92	0.70	0.94	0.88	0.86	0.68	0.78	0.77	0.78	0.83	0.84	0.76	0.89	0.83
15/16	0.73	0.93	0.73	0.93	0.89	0.84	0.72	0.80	0.76	0.79	0.81	0.86	0.78	0.88	0.84
16/17	0.68	0.94	0.74	0.92	0.88	0.79	0.79	0.84	0.74	0.79	0.76	0.89	0.81	0.86	0.84
17/18	0.65	0.96	0.80	0.91	0.89	0.76	0.82	0.85	0.72	0.79	0.73	0.91	0.84	0.84	0.84
18/19	0.57	0.99	0.91	0.90	0.90	0.75	0.86	0.88	0.72	0.80	0.70	0.94	0.89	0.83	0.85
19/20	0.49	0.99	0.90	0.88	0.88	0.69	0.87	0.88	0.67	0.77	0.63	0.95	0.89	0.81	0.83
20/21	0.49	0.99	0.95	0.88	0.89	0.64	0.89	0.89	0.64	0.74	0.60	0.96	0.90	0.79	0.82
BDI-SF^b	AUC = 0.92 (95% CI: 0.86, 0.97)					AUC = 0.89 (95% CI: 0.85, 0.94)					AUC = 0.92 (95% CI: 0.90, 0.95)				
6/7	0.92	0.79	0.53	0.97	0.82	0.96	0.54	0.74	0.91	0.78	0.95	0.71	0.67	0.96	0.80
7/8	0.86	0.85	0.60	0.96	0.86	0.94	0.62	0.77	0.88	0.81	0.92	0.78	0.72	0.94	0.83
8/9	0.81	0.89	0.65	0.95	0.87	0.90	0.66	0.78	0.83	0.80	0.88	0.81	0.75	0.91	0.84
9/10	0.73	0.90	0.64	0.93	0.86	0.85	0.70	0.80	0.78	0.79	0.82	0.83	0.75	0.88	0.83
10/11	0.59	0.92	0.67	0.90	0.86	0.81	0.74	0.81	0.74	0.78	0.75	0.86	0.78	0.85	0.82
11/12	0.59	0.94	0.71	0.90	0.87	0.77	0.78	0.83	0.72	0.78	0.72	0.89	0.80	0.84	0.82
12/13	0.57	0.97	0.84	0.90	0.89	0.71	0.89	0.90	0.69	0.79	0.67	0.94	0.89	0.82	0.84
CES-D^c	AUC = 0.92 (95% CI: 0.87, 0.98)					AUC = 0.91 (95% CI: 0.86, 0.95)					AUC = 0.93 (95% CI: 0.91, 0.96)				
19/20	0.86	0.85	0.60	0.96	0.86	0.94	0.62	0.78	0.89	0.81	0.92	0.78	0.73	0.94	0.83
20/21	0.86	0.87	0.64	0.96	0.87	0.93	0.66	0.80	0.88	0.82	0.91	0.80	0.75	0.94	0.85
21/22	0.84	0.91	0.70	0.96	0.90	0.90	0.68	0.80	0.84	0.81	0.88	0.83	0.77	0.92	0.85
22/23	0.81	0.93	0.75	0.95	0.91	0.90	0.69	0.81	0.84	0.82	0.87	0.85	0.79	0.92	0.86
23/24	0.76	0.93	0.74	0.94	0.90	0.89	0.70	0.81	0.83	0.82	0.85	0.86	0.79	0.90	0.86
24/25	0.73	0.95	0.79	0.93	0.91	0.88	0.72	0.82	0.82	0.82	0.84	0.87	0.81	0.90	0.86
25/26	0.70	0.96	0.81	0.93	0.91	0.86	0.77	0.85	0.81	0.83	0.81	0.90	0.84	0.89	0.87
26/27	0.70	0.97	0.87	0.93	0.92	0.85	0.79	0.85	0.80	0.83	0.81	0.91	0.86	0.88	0.87
27/28	0.70	0.97	0.87	0.93	0.91	0.80	0.80	0.86	0.76	0.81	0.76	0.92	0.86	0.86	0.86
28/29	0.65	0.97	0.86	0.92	0.90	0.78	0.85	0.88	0.75	0.82	0.75	0.93	0.88	0.86	0.86

Note: PPV: Positive predictive value; NPV: Negative predictive value; Eff: Efficiency; AUC: Area under curve; CI: Confidence interval; Optimal cutoff scores are in boldfaced and were determined where the sum of sensitivity and specificity is maximized; BDI: Beck Depression Inventory; BDI-SF; Beck Depression Inventory-Short Form; BDI-PC: Beck Depression Inventory for Primary Care; CES-D: Center for Epidemiological Studies-Depression.

^a Scores range from 0-63; higher scores indicate more depressive symptoms.

^b Scores range from 0-39; higher scores indicate more depressive symptoms.

^c Scores range from 0-60; higher scores indicate more depressive symptoms.

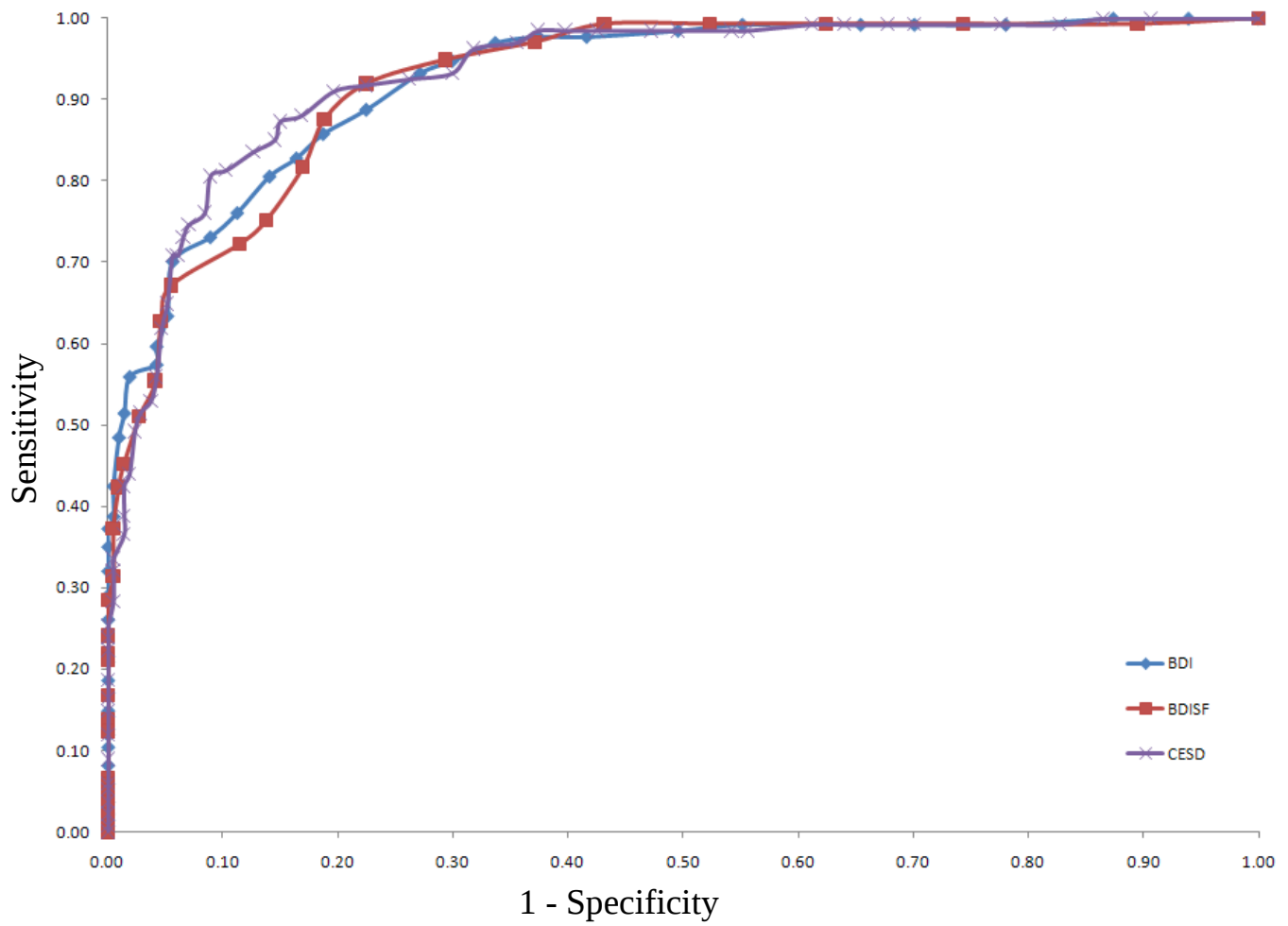


Figure 1. ROC curves for BDI, BDI-SF and CES-D in the entire sample (n=366)

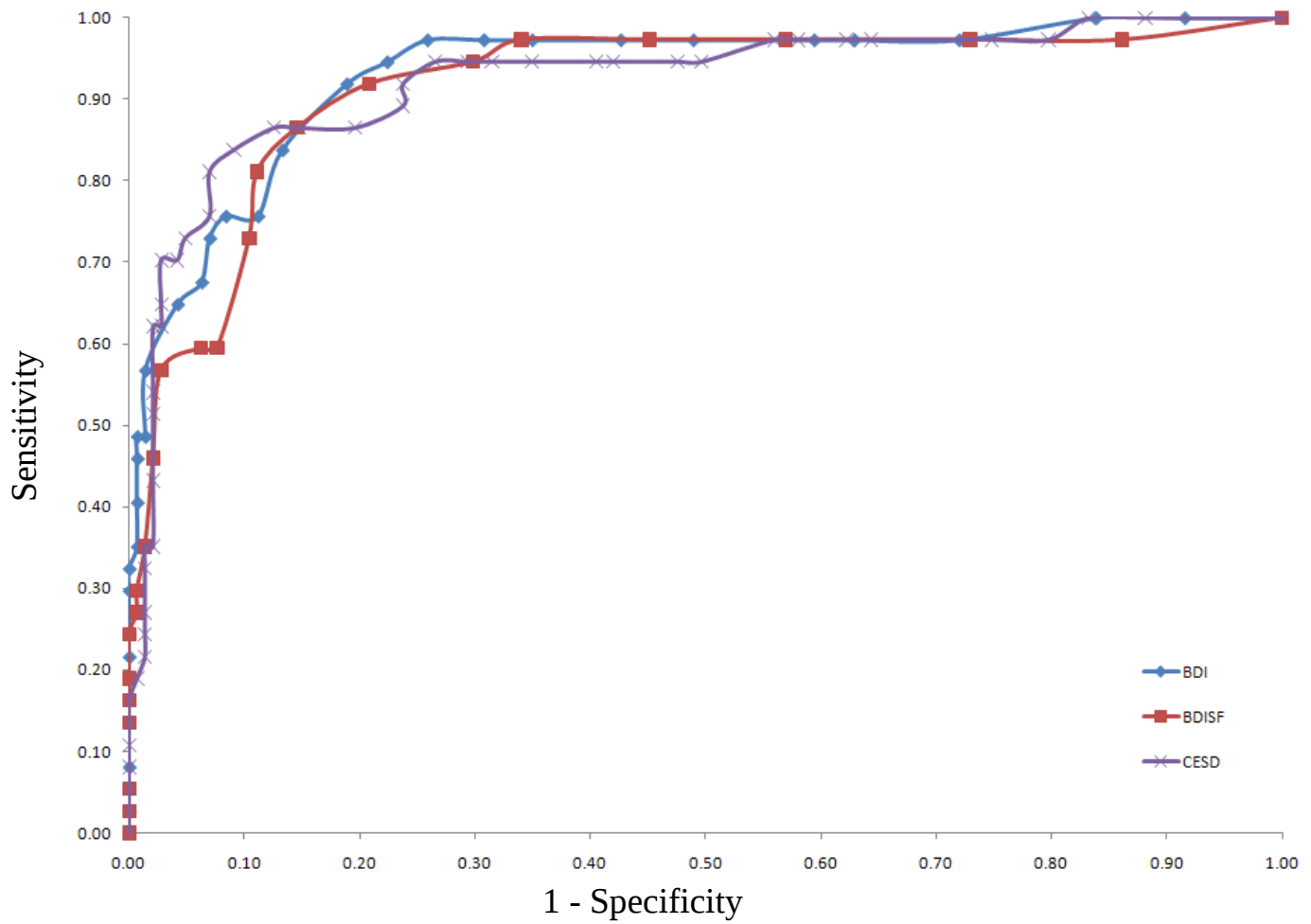


Figure 2. ROC curves for BDI, BDI-SF and CES-D in the Orthopedic Clinic sample (n=185)

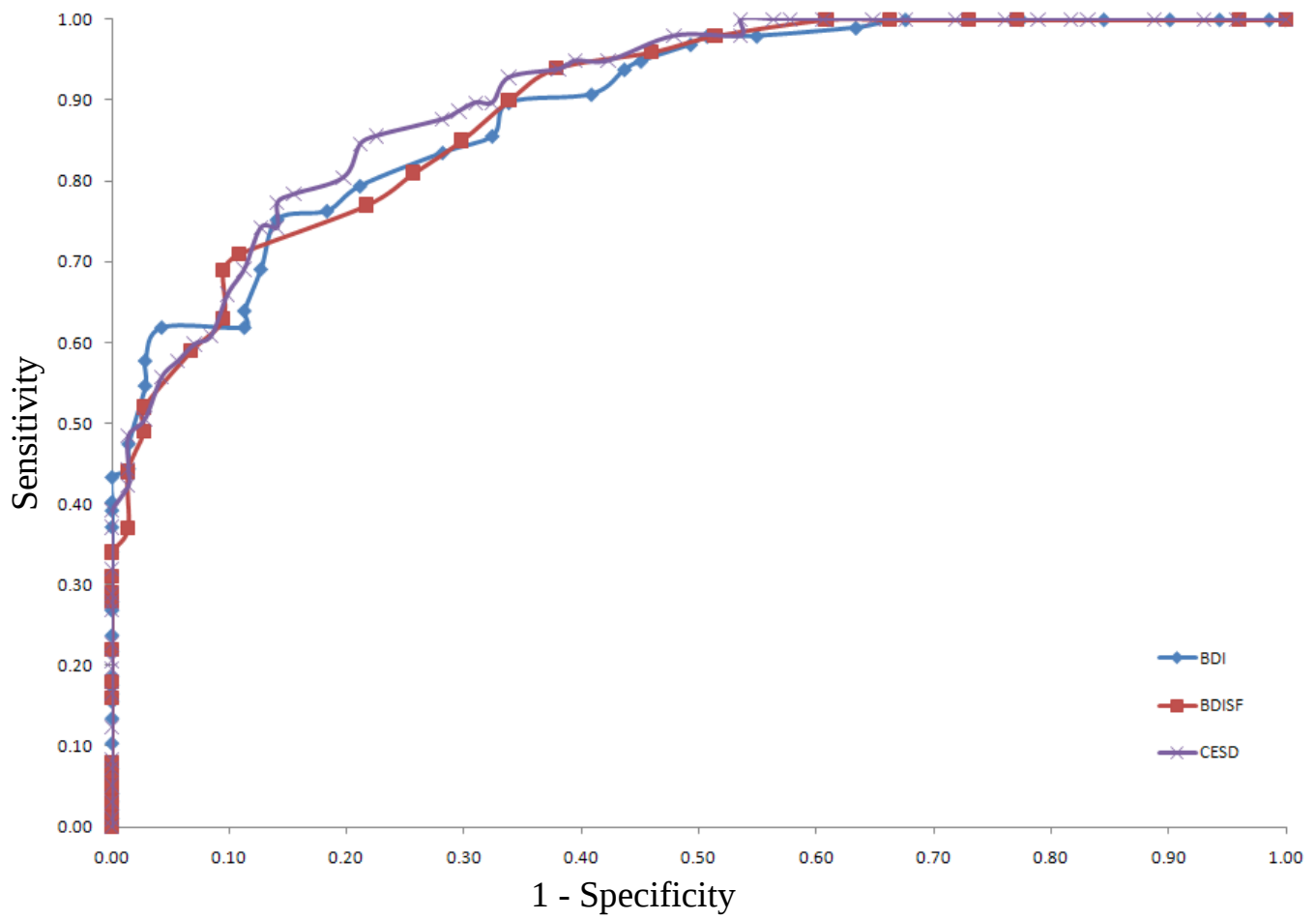


Figure 3. ROC curves for BDI, BDI-SF and CES-D in the Pain Clinic sample (n=181)