

Table 1. Distribution of demographic, pain, opioid use, psychiatric comorbidity and sleep disturbance in patients with and without depression

	Depression		p-value
	No (n=145)	Yes (n=113)	
Age (mean, ((SD))	55.7±11.6	49.3±11.9	<0.0001
female	53.7%	46.3%	
male	61.4%	38.6%	0.42
race			
White	51.2%	48.8%	
African-American	66.2%	33.8%	0.08
Other	61.5%	38.5%	
Low pain severity			
	58.6%	41.4%	0.24
High pain severity	50.6%	49.4%	
Low pain interference	63.2%	36.8%	
			<0.001
High pain interference	38.8%	61.2%	
Daily OAU	52.4%	47.6%	0.16
Non-daily	61.7%	38.3%	
<40 MME	55.3%	44.7%	0.89
>40 MME	56.7%	43.3%	
PODS low	71.8%	28.2%	
PODS med	56.8%	43.2%	<0.0001
PODS high	39.8%	60.2%	
GAD<10	69.4%	30.6%	<0.0001
GAD≥10	14.8%	85.2%	
Sleep latency	1.33	2.07	p<0.001
	(SD 1.11)	(SD 1.10)**	

Sleep duration	1.08 (SD 0.97)	1.64 (SD 1.03)**	p<0.001
Sleep disturbance	9.73 (SD 4.74)	13.2 (SD 5.09)**	p<0.001
Sleeping medication	1.17 (SD 1.39)	1.75 (SD 1.41)**	p<0.001
Sleep related daytime dysfunction	0.62 (SD 0.71)	1.41 (SD 0.93)**	p<0.001

OAU- opioid analgesic use; PODS- prescription opioid difficulties scale

Table 2. Association between pain interference, sleep disturbance and depression (OR=odds of depression)			
	Model 1	Model 2	Model 3
age	0.96 (0.94-0.98)	0.96 (0.94-0.99)	0.97 (0.94-0.99)
Female gender	1.52 (0.84-2.73)	1.24 (0.58-2.17)	1.06 (0.47-2.38)
Race			
White	1.0	1.0	1.0
African-American	0.44 (0.23-0.84)	0.55 (0.26-1.14)	0.48 (0.18-1.25)
Other	0.39 (0.11-1.39)	0.41 (0.10-1.62)	0.51 (0.11-2.36)
High Pain severity	1.19 (0.62-2.27)	0.99 (0.47-2.07)	0.71 (0.29-1.76)
High Pain interference	3.19 (1.66-6.14)	2.11 (0.98-4.51)	1.93 (0.76-4.91)
Sleep latency		1.22 (0.91-1.63)	1.12 (0.79-1.58)
Sleep duration		1.31 (0.96-1.80)	1.18 (0.80-1.72)
Sleep disturbance		1.03 (0.62-1.70)	0.96 (0.54-1.73)
Sleep medication		1.26 (1.01-1.57)	1.34 (1.03-1.74)
Sleep related daytime dysfunction		2.37 (1.58-3.56)	2.20 (1.35-3.58)
Daily OAU			1.66 (0.70-3.98)
>40 MME			0.64 (0.23-1.84)
PODS increasing severity			2.03 (1.28-3.22)
GAD≥10 vs. <10			4.73 (1.56-14.36)