



Supplementary Material

Article Title: Prevalence, Correlates, Comorbidity, and Treatment-Seeking Among Individuals With a Lifetime Major Depressive Episode With and Without Atypical Features: Results From the National Epidemiologic Survey on Alcohol and Related Conditions

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List of Supplementary Material for the article

1. [eTable 1](#) Prevalence and sociodemographic correlates of bipolar and unipolar major depressive episode with atypical features
2. [eTable 2](#) Psychiatric comorbidity in individuals with bipolar and unipolar major depressive episode with atypical features
3. [eTable 3](#) Clinical characteristics associated with a lifetime major depressive episode (MDE) with atypical features and MDE without atypical features
4. [eTable 4](#) Symptoms and health status associated with a lifetime major depressive episode (MDE) with atypical features and MDE without atypical features
5. [eTable 5](#) Treatment-seeking rates in individuals with bipolar and unipolar MDE with atypical features

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eTable 1. Prevalence and sociodemographic correlates of bipolar and unipolar major depressive episode with atypical features

	Bipolar MDE with Atypical Features ^a			Unipolar MDE with Atypical Features ^a			OR 95% CI		
	n=990			n=3,430					
	%	95% CI		%	95% CI		OR	95% CI	
Sex									
Male	36.65	32.83	40.64	28.99	27.11	30.94	1.42	1.18	1.71
Female	63.35	59.36	67.17	71.01	69.06	72.89	1.00	1.00	1.00
Race/Ethnicity									
White	73.54	69.29	77.39	77.89	75.02	80.51	1.00	1.00	1.00
Black	11.15	8.98	13.76	7.68	6.53	9.02	1.54	1.20	1.96
Native Americans	4.21	2.86	6.14	3.25	2.45	4.31	1.37	0.86	2.19
Asian	2.07	1.04	4.07	2.54	1.64	3.91	0.86	0.44	1.67
Hispanic	9.04	6.74	12.02	8.64	6.83	10.88	1.11	0.90	1.37
Nativity									
US-Born	91.11	87.41	93.80	92.17	90.08	93.84	0.87	0.64	1.19
Foreign-born	8.89	6.20	12.59	7.83	6.16	9.92	1.00	1.00	1.00
Age									
18-29	37.28	33.49	41.24	23.36	21.68	25.12	1.00	1.00	1.00
30-44	34.09	30.59	37.76	33.88	32.01	35.80	0.63	0.51	0.78
45-64	25.92	22.67	29.46	35.45	33.49	37.48	0.46	0.36	0.58
65+	2.71	1.78	4.12	7.31	6.37	8.36	0.23	0.15	0.37
Education									
< High School	17.65	15.07	20.57	12.48	11.00	14.13	1.64	1.30	2.08
High School	29.86	26.68	33.24	26.53	24.40	28.77	1.31	1.07	1.59
College	52.49	48.57	56.38	60.99	58.58	63.35	1.00	1.00	1.00
Annual Income									
0-19K	63.85	59.91	67.61	51.70	49.10	54.29	1.00	1.00	1.00
20-34K	19.86	16.99	23.08	22.67	20.66	24.82	0.71	0.56	0.89
35-69K	13.22	10.89	15.96	19.91	17.89	22.11	0.54	0.41	0.70
>70K	3.07	1.86	5.03	5.71	4.67	6.98	0.44	0.27	0.71
Family Income									
0-19K	33.88	30.39	37.54	23.04	21.16	25.03	1.00	1.00	1.00
20-34K	23.25	20.24	26.56	20.99	19.38	22.69	0.75	0.61	0.94
35-69K	29.54	26.18	33.14	32.59	30.53	34.72	0.62	0.49	0.77
>70K	13.33	10.64	16.58	23.38	21.26	25.65	0.39	0.29	0.52
Marital Status									
Married	46.54	42.77	50.35	55.21	53.00	57.40	1.00	1.00	1.00
Widowed	21.02	18.30	24.02	22.68	21.21	24.22	1.10	0.89	1.36
Never Married	32.44	29.00	36.09	22.11	20.33	24.00	1.74	1.41	2.14
Urbanicity									
Urban	80.08	74.99	84.35	79.50	75.91	82.67	1.00	1.00	1.00
Rural	19.92	15.65	25.01	20.50	17.33	24.09	0.96	0.76	1.22
Region									
Northeast	18.92	13.09	26.55	18.86	13.50	25.72	0.94	0.69	1.28
Midwest	24.13	18.18	31.29	24.84	19.23	31.44	0.91	0.71	1.17
South	31.66	25.40	38.66	32.60	26.88	38.88	0.91	0.71	1.17
West	25.29	18.80	33.10	23.71	17.48	31.30	1.00	1.00	1.00
Insurance									
Private	56.26	52.46	59.99	68.83	66.64	70.93	1.00	1.00	1.00
Public	17.77	15.14	20.75	12.62	11.27	14.11	1.72	1.40	2.12
No insurance	25.97	22.54	29.72	18.55	16.90	20.32	1.71	1.38	2.13

^a MDE with Atypical Features defined as presence of *one or both* reversed vegetative symptoms (hyperphagia or hypersomnia), regardless of presence of at least one typical vegetative symptom during the MDE.

eTable 2. Psychiatric comorbidity in individuals with bipolar and unipolar major depressive episode with atypical features

	Bipolar MDE with			Unipolar MDE			AOR ^c		
	Atypical Features ^a			with Atypical Features ^a			95 % CI		
	n=990			n=3,430					
	%	95% CI		%	95% CI		AOR**	95% CI	
Any Psychiatric Disorder	93.22	91.24	94.78	81.34	79.77	82.82	2.98	2.19	4.04
Any Axis I Disorder	88.32	85.75	90.48	77.35	75.59	79.03	2.19	1.73	2.77
Any Substance Use Disorder^b	70.59	66.95	73.99	55.42	53.33	57.49	1.83	1.51	2.23
Alcohol Use Disorder	57.66	53.63	61.59	41.81	39.75	43.91	1.90	1.57	2.29
Alcohol Abuse	19.55	16.32	23.25	20.40	18.67	22.24	1.04	0.82	1.33
Alcohol Dependence	38.10	34.04	42.34	21.41	19.64	23.30	2.02	1.63	2.51
Drug Use Disorder	36.19	32.33	40.23	18.51	16.78	20.38	2.11	1.73	2.57
Drug Abuse	18.37	15.35	21.84	12.19	10.75	13.80	1.37	1.06	1.77
Drug Dependence	17.81	14.73	21.37	6.32	5.33	7.48	2.65	1.97	3.57
Nicotine Dependence	45.13	40.76	49.57	30.58	28.59	32.64	1.73	1.43	2.09
Dysthymia	0.00			21.06	19.43	22.79	N/A	N/A	N/A
Any Anxiety Disorder	61.75	57.96	65.41	42.67	40.35	45.03	2.29	1.89	2.77
Panic Disorder	28.67	25.34	32.25	15.32	13.77	17.01	2.31	1.85	2.88
Social Anxiety Disorder	25.82	22.36	29.61	14.38	12.92	15.98	2.09	1.68	2.61
Specific Phobia	31.71	28.27	35.35	22.07	20.26	24.00	1.61	1.33	1.95
Generalized Anxiety Disorder	29.50	25.79	33.49	15.02	13.51	16.66	2.75	2.17	3.48
Pathological Gambling	2.23	1.35	3.66	0.43	0.28	0.67	5.11	2.48	10.50
Psychotic Disorder	3.52	2.21	5.56	0.88	0.57	1.35	3.28	1.77	6.09
Any Personality Disorder	65.18	61.71	68.50	32.91	31.00	34.87	3.40	2.85	4.05
Avoidant Personality Disorder	21.69	18.81	24.88	7.35	6.42	8.40	3.09	2.45	3.90
Dependant Personality Disorder	6.29	4.60	8.53	1.62	1.17	2.23	3.26	2.09	5.10
Obsessive-Compulsive Disorder	35.50	32.16	38.98	17.53	15.78	19.43	2.56	2.11	3.10
Paranoia Personality Disorder	33.99	30.38	37.79	10.88	9.65	12.24	3.69	2.99	4.56
Schizoid Personality Disorder	18.29	15.43	21.54	8.41	7.33	9.64	2.18	1.72	2.77
Histrionic Personality Disorder	15.72	13.18	18.64	4.36	3.46	5.48	3.39	2.40	4.78
Antisocial Personality Disorder	20.05	17.06	23.41	6.35	5.41	7.45	2.99	2.29	3.92

^a MDE with Atypical Features defined as presence of *one or both* reversed vegetative symptoms (hyperphagia or hypersomnia), regardless of presence of at least one typical vegetative symptom during the MDE.

^b Any Substance Use Disorder: including alcohol use disorder, drug use disorder, and nicotine dependence.

^c Adjusted for sex, race, US-born, age, annual income, marital status, urbanicity, and total number of criteria.

eTable 3. Clinical characteristics associated with a lifetime major depressive episode (MDE) with atypical features and MDE without atypical features

	Bipolar MDE with Atypical Features ^a			Unipolar MDE with Atypical Features ^a			AOR ^b 95% CI		
	n=990			n=3,430					
	Mean	95% CI		Mean	95% CI		Wald F** p-value		
Age of Onset	22.82	22.01	23.63	28.79	28.27	29.32	66.93 <0.0001		
Number of Episodes	8.38	7.26	9.50	5.35	4.72	5.98	26.79 <0.0001		
Total number of criteria	8.36	8.27	8.44	8.06	8.01	8.11	43.58 <0.0001		
	%	95% CI		%	95% CI		AOR** 95% CI		
Use of alcohol to help relieve symptoms	31.98	28.37	35.82	17.95	16.37	19.65	2.03	1.64	2.51
Self-medication to help relieve symptoms	16.64	13.56	20.27	6.29	5.34	7.40	2.50	1.89	3.31
Family History of depression (only 1st degree relatives)	75.58	72.23	78.65	64.29	62.03	66.49	1.90	1.56	2.32
Disturbed Family Environment	95.35	93.75	96.55	95.79	94.92	96.51	1.03	0.71	1.51
Childhood parental loss	9.68	7.79	11.97	8.29	7.27	9.43	1.22	0.92	1.61
Conduct Disorder	2.10	1.29	3.40	1.98	1.43	2.73	0.87	0.48	1.56
Early onset anxiety(before 18 yr-old) ^c	52.48	47.71	57.20	44.61	41.64	47.61	1.69	1.39	2.05
History of Divorce/loss of spouse	32.76	29.03	36.72	37.94	35.82	40.10	1.10	0.83	1.45
Lifetime rejection sensitivity ^d	25.97	22.69	29.55	10.44	9.31	11.69	2.52	2.01	3.16
Bipolar I	62.60	58.94	66.12	N/A					
Bipolar II	29.34	25.95	32.98	N/A					

^a MDE with Atypical Features defined as presence of *one or both* reversed vegetative symptoms (hyperphagia or hypersomnia), regardless of presence of at least one typical vegetative symptom during the MDE.

^b Adjusted for sex, race, US-born, age, annual income, marital status, urbanicity, and total number of criteria

^c Early onset anxiety defined as onset of any anxiety disorder before age 18.

^d Lifetime rejection sensitivity defined as avoiding getting involved with people unless the respondent was certain of being liked.

eTable 4. Symptoms and health status associated with a lifetime major depressive episode (MDE) with atypical features and MDE without atypical features

	Bipolar MDE with Atypical Features ^a			Unipolar MDE with Atypical Features ^a			AOR ^b 95% CI		
	n=990			n=3,430			AOR**	95% CI	
	%	95% CI		%	95% CI				
Clinical Symptoms									
Lack of interest or pleasure	93.34	91.30	94.93	88.89	87.48	90.17	1.72	1.24	2.39
Fatigue	92.14	90.00	93.85	90.18	88.92	91.32	1.44	1.08	1.93
Motor retardation	66.45	62.88	69.84	45.08	42.84	47.34	2.34	1.94	2.82
Motor agitation	51.14	47.28	55.00	39.87	37.62	42.17	1.57	1.31	1.90
Worthlessness	76.41	72.90	79.59	64.06	61.93	66.14	1.78	1.45	2.18
Guilt	72.53	68.81	75.96	59.23	57.28	61.16	1.83	1.50	2.24
Trouble concentrating	91.14	88.64	93.13	84.15	82.43	85.72	1.98	1.47	2.66
Trouble making decisions	84.55	81.83	86.93	76.33	74.51	78.06	1.88	1.52	2.34
Irritability	72.57	68.55	76.25	51.88	50.05	53.70	2.22	1.79	2.75
Attempt suicide	24.74	21.68	28.07	9.99	8.89	11.20	2.61	2.09	3.26
Thoughts of suicide	55.63	51.38	59.80	38.90	37.08	40.75	1.87	1.56	2.24
Thoughts of own death	70.37	66.39	74.06	55.20	53.29	57.10	1.85	1.51	2.25
Overall Health excellent to good	62.86	57.92	67.55	70.07	67.67	72.36	0.69	0.55	0.86
Overall health fair to poor	37.14	32.45	42.08	29.93	27.64	32.33	1.00	1.00	1.00
	Mean	95% CI		Mean	95% CI		Wald F**	p-value	
Physical component summary ^c	49.87	48.98	50.77	49.57	49.01	50.13	0.80	0.3743	
Mental component summary ^c	41.55	40.56	42.55	46.42	46.00	46.84	66.30	<0.0001	
Social Functioning Scale Score ^c	43.76	42.61	44.92	47.59	47.08	48.11	31.29	<0.0001	
Role of Emotional Functioning Scale Score ^c	42.57	41.48	43.65	47.09	46.61	47.58	60.77	<0.0001	
Mental Health Scale Score ^c	41.94	40.99	42.89	45.82	45.36	46.28	48.78	<0.0001	

^a MDE with Atypical Features defined as presence of *one or both* reversed vegetative symptoms (hyperphagia or hypersomnia), regardless of presence of at least one typical vegetative symptom during the MDE.

^b Adjusted for sex, race, US-born, age, annual income, marital status, urbanicity, and total number of criteria.

^c SF-12 V2 Scores.

eTable 5. Treatment-seeking rates in individuals with bipolar and unipolar MDE with atypical features

	Bipolar MDE with Atypical Features ^a			Unipolar MDE with Atypical Features ^a			AOR ^b		
	n=990			n=3,430			95 % CI		
	%	95% CI		%	95% CI		AOR	95% CI	
Any Lifetime Treatment	68.74	64.67	72.54	63.66	61.60	65.68	1.49	1.21	1.83
Lifetime Outpatient treatment seeking	63.28	59.22	67.15	57.41	55.30	59.50	1.43	1.18	1.75
Lifetime Emergency Room/Hospital	18.96	16.10	22.21	8.65	7.49	9.98	2.22	1.7	2.9
Lifetime use of medication	54.45	49.98	58.85	48.36	46.05	50.68	1.56	1.29	1.89
Treatment seeking in the past 12 months	38.21	34.14	42.44	25.90	23.97	27.94	1.77	1.36	2.30
	Mean	95% CI		Mean	95% CI		Wald F*	p-value	
Age when first sought treatment (Mean)	27.88	26.66	29.09	32.03	31.33	32.73	4.34	0.0411	
Time to Treatment Seeking (Mean)(year)	4.91	4.16	5.67	3.30	2.98	3.62	26.71	<0.0001	

^a MDE with Atypical Features defined as presence of *one or both* reversed vegetative symptoms (hyperphagia or hypersomnia), regardless of presence of at least one typical vegetative symptom during the MDE.

^b Adjusted for sex, race, US-born, age, annual income, marital status, urbanicity, and total number of criteria.