

HHS Public Access

Author manuscript Arch Womens Ment Health. Author manuscript; available in PMC 2018 December 01.

Published in final edited form as:

Arch Womens Ment Health. 2017 December ; 20(6): 757-764. doi:10.1007/s00737-017-0769-y.

The Comorbidity of Axis I Disorders in Depressed Pregnant Women

Lilian Dindo¹, Alexis Elmore², Michael O'Hara², and Scott Stuart^{2,3}

¹Department of Psychiatry & Behavioral Sciences, Baylor College of Medicine

²University of Iowa, Department of Psychological and Brain Sciences

³University of Iowa, Department of Psychiatry

Abstract

Purpose—Depression during pregnancy is highly prevalent and is associated with increased risk of a variety of negative psychological and medical outcomes in both mothers and offspring. Antenatal depression often co-occurs with significant anxiety, potentially exacerbating morbidities for women and their children. However, screening during the antenatal period is frequently limited to assessment of depression, so that other significant co-morbid disorders may be missed. Follow-up assessment by clinicians has similarly focused primarily on detection of depressive symptoms. Anxiety, obsessive compulsive disorder, and post-traumatic stress disorder, among others, often go undetected in perinatal care settings, even when depression is identified. Failing to recognize these comorbid diagnoses may lead to inadequate treatment or only partial alleviation of distress. Consequently, screening for and assessment of comorbid disorders is warranted.

Method—In this study, 382 pregnant women (M age = 25.8 [SD = 5.3] years, 85.0% Caucasian) receiving care at a university hospital clinic and Maternal Mental Health Care centers in eastern Iowa and who screened positive for depression on the Beck Depression Inventory completed the *Structured Clinical Interview for DSM-IV* to assess comorbid mental health symptoms and diagnoses.

Results—Overall, findings demonstrate high rates of anxiety disorders among women both with and without current major depression, although depressed women reported higher rates of generalized anxiety disorder and post-traumatic stress disorder. Notably, however, incidence specific symptoms were comparable across groups.

Conclusions—Routine screening of both anxiety and depression during pregnancy should be conducted.

Correspondence: Scott Stuart, 1-293 Medical Education Building, Department of Psychiatry, University of Iowa, Iowa City, IA 52242, USA.

Conflicts of Interest. All authors declare that they have no conflict of interest.

Compliance with Ethical Standards. All procedures involving human participants were in accordance with the ethical standards of the institution and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. This article does not contain any studies with animals performed by any of the authors. Informed consent was obtained from all individuals participants included in the study.

Antenatal Depression; Anxiety; Beck Depression Inventory; Perinatal Mental Health

Introduction

Antenatal depression is highly prevalent, with an estimated 6–13% of women experiencing depression during pregnancy (Bennett et al. 2004; Gavin et al. 2005). Indeed, the prevalence of both depressive and anxiety symptoms may be elevated during pregnancy compared to the postpartum period (Evans et al. 2001; Heron et al. 2004). Although a substantial proportion of women experience mental health difficulties during pregnancy, only a fraction receive mental health treatment (Andersson et al. 2003; Bonari et al. 2004; Goodman & Tyler-Viola 2010), suggesting significant gaps in current screening and assessment procedures.

Recognition of antenatal depression in clinical settings is of particular significance due to implications for functional impairment, both during and after pregnancy. Research has demonstrated an association between mothers' mood difficulties and adverse neonatal and obstetrical outcomes (Bonari et al. 2004), supporting the longer-term benefits and consequences of early identification and intervention for mothers experiencing depression during pregnancy (Siu et al. 2016). Antenatal depression is also a significant predictor of postnatal depression (Heron et al. 2004; Leigh & Milgrom 2008). Mood difficulties during pregnancy, particularly in conjunction with co-occurring psychopathology, are likely to exacerbate potential negative outcomes in the postpartum period.

Screening procedures have been increasingly implemented in clinical settings (Breedlove & Fryzelka 2011), as evidenced by the recent U.S. Preventive Services Task Force recommendation to implement depression screening during and after pregnancy (Siu et al., 2016). These screening tools often include the Edinburgh Postnatal Depression Scale (EPDS) (Cox et al 1987) and the two-item screen developed by Whooley et al (Whooley et al 1997). However, assessment has been limited largely to symptoms of depression. Initial screening typically involves administration of a brief symptom checklist to assess basic depressive symptoms (Breedlove & Fryzelka 2011), or some providers are trained to verbally ask patients two primary questions as a depression screen: "Are you down, depressed, or blue?" and "Have you lost interest or pleasure in things?" reflecting primary symptoms of a major depressive episode (American Psychiatric Association, 2013). Clinical assessment following positive depression screens is unclear; however, unless administered by mental health professionals, follow-up assessment is most likely limited to further evaluation of core depressive symptoms.

While more widespread implementation of depression screening represents a clear improvement in care, more thorough follow-up assessment of women who screen positive for depression during pregnancy may be needed (Breedlove & Fryzelka 2011). Specifically, current screening procedures neglect assessment of comorbid diagnoses likely to influence clinical treatment and outcome. Women who initially screen positive for depression but do not meet the standard for a positive clinical assessment by providing affirmative responses to typical follow-up questions specifically querying primary depressive symptoms (e.g., feeling

down or depressed, anedonia) are unlikely to be assessed further for symptoms of other conditions, such as anxiety disorders. These women are therefore unlikely to be referred for further evaluation or treatment because symptoms of additional diagnoses are not included in basic clinical screening and assessment procedures.

Other diagnoses, such as anxiety disorders, are also likely of significance during pregnancy. Prevalence of anxiety disorders during pregnancy has been estimated at approximately 6.6% (Andersson et al. 2003), while reported estimates of significant anxiety symptoms are higher (e.g., 15.6%; Rubertsson et al. 2014). Symptoms of depression and anxiety are highly correlated during antepartum (e.g., Lancaster et al. 2010; Leigh & Milgrom 2008). However, anxiety frequently goes undetected and untreated in obstetrical settings (Coleman et al. 2008; Goodman & Tyler-Viola 2010), and little is known regarding symptomatic presentation of anxiety in pregnant women who are depressed or screen positive for depression.

Antenatal anxiety predicts offspring psychological difficulties in both infancy and childhood (Van den Bergh et al. 2005), indicating the importance of this issue for both mothers and their children. Antenatal anxiety predicts later development of postpartum depression (Heron et al. 2004; Lee et al. 2007; Robertson et al. 2004), even after accounting for psychosocial vulnerability and antenatal depression (Coelho et al. 2011; Sutter-Dallay et al. 2004). The existing risk presented by antenatal anxiety suggests that clinical screening should include evaluation of both depression and anxiety both during pregnancy and in the postpartum (Andersson et al. 2003; Heron et al. 2004; Lee et al. 2007; Matthey et al. 2003; Stuart et al., 1998).

Because of this increasing emphasis on screening for comorbidity during pregnancy, we reexamined data we had available from a large-scale project in which our original goal was to study only depression screening. This paper reports new analyses of the comorbidity of GAD, OCD, PD, and PTSD and incidence of specific symptoms of each of these disorders in a large sample of pregnant women to provide comparative symptom profiles among women with and without current major depressive episode and to better approximate patient presentations in general care settings.

Method

Participants and Procedure

Women between 6 and 28 weeks of pregnancy presenting to a university hospital OB-GYN clinic or one of six Maternal Health Care Centers in Eastern Iowa completed the Beck Depression Inventory (BDI; N = 5,404; Figure 1) between 2000–2004. Participants recruited from Maternal Health Care Centers were younger, reported lower income and education, were more likely to be unemployed, single or living without a partner, and had more premature births, stillbirths, and miscarriages compared to participants recruited from the university hospital OB-GYN clinic (Koleva et al. 2011). Our previous analyses of this screening data (Koleva et al., 2011; Koleva and Stuart, 2014) examined psychosocial risk factors for depression during pregnancy, but did not examine depression comorbidity. Our clinical experience since the publication of those papers examining risk for depression

suggest that comorbidity is often unassessed and is critical to evaluate since it impacts both treatment planning and prognosis. The study was approved by the University of Iowa Institutional Review Board. Informed consent was obtained from all participants prior to study participation.

The 821 women in our study who screened positive for depression on the BDI were subsequently interviewed using the Structured Clinical Interview for the DSM-IV (SCID; Spitzer et al. 1992). Participant flow through each stage of the study is depicted in Figure 1. Women completing the interviews did not differ from those who did not on mean BDI scores (mean BDI = 21.28 and 22.08, respectively; p = .071) or marital status (59.2% and 57.5% married or living with partner, respectively; p = .637), though non-participants were more likely to be unemployed (62.4% versus 49.7%, respectively; p < .001), less educated (44.6% versus 54.1% with 13 years education or greater; p = .007), and to be from a minority group (24.4% versus 15%, respectively; p = .001).

Measures

Beck Depression Inventory (BDI, Beck et al. 1961)—The BDI is a commonly used 21-item self-report inventory used to measure severity of depression. Each question consists of four statements describing increasing intensities of symptoms of depression. Items are rated on a scale of 0–3, reflecting how participants have felt over the last week. Total scores range from 0–48 with higher scores reflecting more severe depressive symptomatology. Cronbach's alpha in the current sample was satisfactory (N = 382; α = .68).

The Structured Clinical Interview for DSM-IV (The SCID-IV; Spitzer et al. 1992)

—The SCID-IV is a semi-structured diagnostic interview to assess DSM-IV disorders. Good estimates of validity and reliability for the SCID-IV have been reported in youth and adult administrations of this test (Spitzer et al. 1992), and it has demonstrated good clinical utility in controlled outcome studies (e.g., Azrin et al. 2001).

For all diagnoses symptoms are coded as present, subthreshold, or absent. In this study, the current Major Depressive Episode module was completed in full for all women regardless of response to the entry items (sad, depressed mood and/or loss of interest). All other modules were completed in full only if the screener item(s) were endorsed to reduce participant burden.

Statistics

Descriptive statistics were computed to examine the frequency of comorbid anxiety disorders as well as specific anxiety symptoms in the full sample of women with positive screens on the BDI and subsamples of women with and without current MDE. Additionally, Pearson's Chi-square statistics were computed to compare frequency of symptoms across depressed and non-depressed subsamples. All analyses were conducted in SPSS (Version 23).

Results

Descriptive and demographic statistics are presented in Table 1. Participants ranged in age from 18.1 to 43.1 years (M = 25.8, SD = 5.3) and reported an average of 13.4 years of education. A majority of participants self-identified as Caucasian (85.0%), were married or living with a romantic partner (59.2%), employed (50.3%), and reported annual family incomes of \$20,000 or less (57.3%). A significantly higher proportion of currently depressed women also met criteria for GAD (p < .001) and PTSD (p = .026). Differences in presentation of depressive symptoms between women with and without current MDE are presented in Table 2.

Anxiety Disorder Symptoms

General Anxiety Disorder—Frequencies of endorsed GAD symptoms are shown in Table 3. Significantly more women reported symptoms of nervousness or anxiety (p = .002), excessive anxiety or worry (p = .015), being easily fatigued (p = .046), sleep disturbance (p = .001), and distress or impairment on these symptoms (p < .001). Notably, 22.0% of women not meeting full criteria for current MDE also endorsed experiencing nervousness or anxiety; of these, a majority reported experiencing these same symptoms of GAD (range: 50.0% to 66.7%), with the exception of distress or impairment from the symptoms, which was still endorsed by 38.1% of these women.

Panic Disorder—More depressed women reported having experienced a panic attack in the past month compared to non-depressed women (p = .025). Endorsement of PD symptoms was comparable across groups, with two exceptions: a significantly higher proportion of women reported experiencing parathesias (p = .034) and chills or hot flushes (p = .032) in connection with a panic attack in the past month. Although fewer women without current MDE endorsed symptoms of panic, a noteworthy proportion of those who endorsed the entry item reported individual panic symptoms (see Table 3).

Obsessive Compulsive Disorder—Significantly more depressed women reported having experiences obsessions and/or compulsions over the previous month (p < .001). However, rates of endorsement were comparable across groups for all other individual OCD symptoms (all p > .258; see Table 4).

Post-Traumatic Stress Disorder—More depressed women reported experience avoidance behaviors (i.e., avoiding activities and places) in connection with a traumatic experience (p = .043). However, endorsement of all other PTSD symptoms was comparable across groups (all p > .051; see Table 4).

Discussion

Our findings demonstrate high rates of co-occurring anxiety disorders both in women who met full criteria for current MDE and those who did not. More women with current MDE met criteria for anxiety disorders than those without current MDE. However, in general, symptom endorsement was comparable across groups, clearly suggesting that pregnant

women who screen positively for depression even without a formal diagnosis of MDE are experiencing psychological distress and impairment that might be reduced with intervention.

Our data indicate that pregnant women with positive screens for MDE—whether they meet full diagnostic criteria for MDE or not—need to be assessed further for anxiety and PTSD symptoms and diagnoses. Screening items to assess for likely presence of highly comorbid disorders (e.g., anxiety disorders) could be incorporated into existing screening procedures. Future research should evaluate the utility of including additional anxiety-related items in clinical assessments as a supplement to initial screening. For example, O'Hara et al. (2012) recently demonstrated the utility of three items (felt restless, felt panicky, and depressed mood) in identifying women at risk for anxiety and/or depression in the postpartum period. A similarly brief set of screening items could be evaluated for use with women at risk for antenatal depression and/or anxiety to identify those women in need of further clinical assessment.

In addition to screening, clinicians should also be trained to assess both anxiety and depression for all pregnant women. Particularly in settings where regular use of longer measures is not feasible due to time constraints, a two-tier assessment process could be of use both in efficient allocation of available clinical resources and identifying those women at risk for antenatal depression and comorbid disorders (Breedlove & Fryzelka 2011). Providing additional training with regard to anxiety disorders may also improve medical providers' interest in consistently screening for both anxiety and depression during pregnancy (Coleman et al. 2008).

The primary limitation of our study is the lack of data regarding women who were below the positive screen threshold score on the BDI. It is quite likely that, despite the good sensitivity and specificity reported using a BDI score of 16, that many women, particularly those near the threshold, would also meet criteria for anxiety diagnoses. Since we did not interview women who screened negatively on the BDI, we do not have data regarding the sensitivity or specificity of the BDI. The study is also limited by the relatively low rate of minorities and the relatively high education level of the subjects. However, the sample did include a number of women who were served by maternal health clinics, which are publically funded sites designed to provide care during pregnancy and the postpartum to women who have no other means to pay for care. The sample also included women from very low SES groups. Though there is an emphasis on screening for perinatal depression now, we believe that the findings from our data set still reflect contemporary comorbidity and emphasize the need for more comprehensive screening.

In conclusion, our data demonstrate comparable rates of anxiety symptoms among women screening positive for depression, highlighting the need for additional evaluation of anxiety in pregnant women to increase access to treatment and improve outcomes.

Acknowledgments

Funding. This study was supported in part by NIMH research grant MH59688 awarded to Dr. Stuart.

References

- American Psychiatric Association. Diagnostic and statistical manual of mental disorders. 5. Washington, DC: Author; 2013.
- Andersson L, Sundtröm-Poromaa I, Bixo M, Wulff M, Bondestam K, Astrom M. Point prevalence of psychiatric disorders during the second trimester of pregnancy: A population-based study. Am J Obstet Gynecol. 2003; 189:148–154. [PubMed: 12861154]
- Azrin NH, Donohue B, Teichner GA, Crum T, Howell J, DeCato LA. A controlled evaluation and description of individual-cognitive problem solving and family-behavior therapies in duallydiagnosed conduct-disordered and substance-dependent youth. J Child and Adoles Subst. 2001; 11:1–43.
- Beck AT, Steer RA, Carbin MG. Psychometric properties of the Beck Depression Inventory: Twentyfive years of evaluation. Clin Psych Rev. 1988; 8:77–100.
- Beck AT, Ward CH, Mendelson M, Mock J, Erbaugh J. An inventory for measuring depression. Arch Gen Psych. 1961; 4:561–571.
- Bennett HA, Einarson A, Taddio A, Koren G, Einarson T. Prevalence of depression during pregnancy: Systematic review. Obstet Gynecol. 2004; 103:698–709. [PubMed: 15051562]
- Bonari L, Pinto N, Ahn E, Einarson A, Steiner M, Koren G. Perinatal risks of untreated depression during pregnancy. Can J Psychiat. 2004; 49:726–735.
- Breedlove G, Fryzelka D. Depression screening during pregnancy. J Midwifery Wom Heal. 2011; 56:18–25.
- Coelho HF, Murray L, Royal-Lawson M, Cooper PJ. Antenatal anxiety disorder as a predictor of postnatal depression: A longitudinal study. J Affect Disorders. 2011; 129:348–353. [PubMed: 20805004]
- Coleman V, Carter M, Morgan M, Schulkin J. Obstetrician-gynecologists' screening patterns for anxiety during pregnancy. Depress Anxiety. 2008; 25:114–123. [PubMed: 17326098]
- Cox J, Holden J, Sagovsky R. Detection of postnatal depression. Development of the 10-item Edinburgh Postnatal Depression Scale. Br J Psychiatry. 1987; 150:782–786. [PubMed: 3651732]
- Evans J, Heron J, Francomb H, Oke S, Golding J. Cohort study of depressed mood during pregnancy and after childbirth. BMJ. 2001; 323:257–260. [PubMed: 11485953]
- Gavin NI, Gaynes BN, Lohr KN, Meltzer-Brody S, Gartlehner G, Swinson T. Perinatal depression: A systematic review of prevalence and incidence. Obstet Gynecol. 2005; 106:1071–1083. [PubMed: 16260528]
- Goodman J, Tyler-Viola L. Detection, treatment, and referral of perinatal depression and anxiety by obstetrical providers. J Womens Health. 2010; 19:477–490.
- Heron J, O'Connor TG, Evans J, Golding J, Glover V. The course of anxiety and depression through pregnancy and the postpartum in a community sample. J Affect Disorders. 2004; 80:65–73. [PubMed: 15094259]
- Holcomb WL, Stone LS, Lustman PJ, Gavard JA, Mostello DJ. Screening for depression in pregnancy: Characteristics of the Beck Depression Inventory. Obstet Gynecol. 1996; 88:1021–1025. [PubMed: 8942846]
- Koleva H, Stuart S, O'Hara MW, Bowman-Reif J. Risk factors for depressive symptoms during pregnancy. Arch Women Ment Hlth. 2011; 14:99–105.
- Koleva H, Stuart S. Risk factors for depressive symptoms in adolescent pregnancy in a late-teen subsample. Arch Women Ment Hlth. 2014; 17:155–158.
- Lancaster CA, Gold KJ, Flynn HA, Yoo H, Marcus SM, Davis MM. Risk factors for depressive symptoms during pregnancy: A systematic review. Am J Obstet Gynecol. 2010; 202:5–14. [PubMed: 20096252]
- Lee AM, Lam SK, Lau SMSM, Chong CSY, Chui HW, Fong DYT. Prevalence, course, and risk factors for antenatal anxiety and depression. Obstet Gynecol. 2007; 110:1102–1112. [PubMed: 17978126]
- Leigh B, Milgrom J. Risk factors for antenatal depression, postnatal depression, and parenting stress. BMC Psychiatry. 2008; :8.doi: 10.1186/1471-244X-8-24 [PubMed: 18271956]

- Matthey S, Barnett B, Howie P, Kavanagh DJ. Diagnosing postpartum depression in mothers and fathers: Whatever happened to anxiety? J Affect Disorders. 2003; 74:139–147. [PubMed: 12706515]
- O'Hara MW, Stuart S, Watson D, Dietz PM, Farr SL, D'Angelo D. Brief scales to detect postpartum depression and anxiety symptoms. J Womens Health. 2012; 21:1237–1243.
- Robertson E, Grace S, Wallington T, Steward MD. Antenatal risk factors for postpartum depression: A synthesis of recent literature. Gen Hosp Psychiat. 2004; 26:289–295.
- Rubertsson C, Hellström J, Cross M, Sydsjö G. Anxiety in early pregnancy: Prevalence and contributing factors. Arch Women Ment Hlth. 2014; 17:221–228.
- Salamero M, Marcos T, Gutierrez F, Rebull E. Factorial study of the BDI in pregnant women. Psychol Med. 1994; 24:1031–1035. [PubMed: 7892348]
- Siu AL, Bibbins-Domingo K, Grossman DC, Baumann LC, Davidson KW, Ebell M, Krist AH. Screening for depression in adults: US preventive services task force recommendation statement. JAMA- J Am Med Assoc. 2016; 315:380–387.
- Spitzer RL, Williams JB, Gibbon M, First MB. The structured clinical interview for DSM-III-R (SCID): I: History, rationale, and description. Arch Gen Psychiat. 1992; 49:624–629. [PubMed: 1637252]
- Stuart S, Couser G, Schilder K, O'Hara M, Gorman L. Postpartum anxiety and depression: Onset and comorbidity in a community sample. J Nerv Ment Dis. 1998; 186:420–424. [PubMed: 9680043]
- Sutter-Dallay AL, Giaconne-Marcesche V, Glatigny-Dallay E, Verdoux H. Women with anxiety disorders during pregnancy are at increased risk of intense postnatal depressive symptoms: A prospective survey of the MATQUID cohort. Eur Psychiat. 2004; 19:459–463.
- Van den Bergh BRH, Mulder EJH, Mennes M, Glover V. Antenatal maternal anxiety and stress and the neurobehavioral development of the fetus and child: Links and possible mechanisms. A review. Neurosci Biobehav R. 2005; 29:237–258.



Figure 1. Flow Chart

Descriptive and Demographic Statistics

	Full Sample	Subsample with Current MDE	Subsample without Current MDE	
	N = 382	N = 228	N = 154	p
	Mean/% (SD)	Mean/% (SD)	Mean/% (SD)	
Age	25.8 (5.3)	25.9 (5.2)	25.6 (5.4)	.604
Caucasian Ethnicity	85.0	85.9	83.7	.548
Years Education	13.4 (2.2)	13.3 (2.3)	13.5 (2.2)	.473
Income < 20,000	57.3	61.3	50.9	.079
Employed	50.3	44.7	58.6	.008
Married or Living with Partner	59.2	59.6	58.4	.814
Week of Pregnancy at Assessment	14.4 (5.1)	14.5 (5.2)	14.2 (5.0)	.472
Number of Children	1.0 (1.2)	1.16 (1.3)	0.7 (0.9)	<.001
Psychiatric Treatment History				
Psychiatric Medication	1.0	1.3	0.6	
Comorbidities				
Past MDE	56.7	60.8	51.0	.068
GAD	14.2	20.5	4.7	<.001
Panic Disorder	5.1	6.3	3.3	.201
OCD	3.5	4.9	1.3	.127
PTSD	5.1	7.1	2.0	.026

Note. MDE = Major Depressive Episode diagnosed on SCID. GAD = Generalized Anxiety Disorder. OCD = Obsessive Compulsive Disorder. PTSD = Post-Traumatic Distress Disorder.

Frequencies of Endorsed SCID Current Depressive Symptoms among Pregnant Women with and without Current MDE

	Women with	Women Without	
	Current MDE	Current MDE	
	N = 228	N = 154	
	% Ei	р	
Depressed Mood	68.9	7.8	<.001
Anhedonia	82.5	11.2	<.001
Appetite/Weight Loss	77.4	43.7	<.001
Appetite/Weight Gain	19.0	21.9	.502
Insomnia	79.6	57.0	<.001
Hypersomnia	28.1	25.2	.526
Psychomotor Agitation	44.9	26.0	<.001
Psychomotor Retardation	50.4	26.9	<.001
Fatigue	89.5	48.7	<.001
Worthlessness	66.7	23.8	<.001
Guilt	71.4	35.4	<.001
Concentration difficulties	63.6	39.6	<.001
Indecisiveness	54.4	22.1	<.001
Thoughts of Own Death	28.6	6.6	<.001
Suicidal Ideation	8.8	2.0	.007
Suicide Plan	4.8	0.7	.023
Suicide Attempt	0.9	0	.247

Note. MDE = Major Depressive Episode diagnosed on SCID.

Author Manuscript

Frequencies of Endorsed SCID GAD and Panic Disorder Symptoms

	Full Sample	With MDE	Without MDE	
	N = 382	N = 228	N = 154	
		% Endorsed		р
Generalized Anxiety Disorder				
Entry Item: Nervous/Anxious	31.3	37.5	22.0	.002
Excessive Anxiety/Worry	67.7	74.2	51.4	.015
Difficulty Controlling Worry	65.5	69.9	53.3	.102
Restless, Keyed Up, On Edge	64.7	69.2	50.0	.116
Easily Fatigued	77.6	82.8	61.9	.046
Difficulty Concentrating	62.8	66.2	52.4	.256
Irritability	79.1	83.1	66.7	.108
Muscle Tension	62.8	66.2	52.4	.256
Sleep Disturbance	80.0	87.7	55.0	.001
Distress/Impairment	73.3	84.6	38.1	<.001
Panic Disorder				
Entry Item: Past month panic attack	17.4	21.0	12.0	.025
Recurrent unexpected panic	48.6	47.1	52.6	.678
Worry about implications of attack/change in behavior related to attacks	36.2	34.9	40.0	.723
Symptoms develop abruptly, peak within 10 minutes	74.0	75.0	71.4	.796
Heart palpitations	70.2	74.3	58.3	.297
Sweating	34.0	37.1	25.0	.444
Trembling/shaking	43.5	42.9	45.5	.880
Shortness of breath	55.3	60.0	41.7	.270
Feeling of choking	10.9	14.7	0	.159
Chest pain or discomfort	37.0	41.2	25.0	.318
Nausea or abdominal distress	23.9	26.5	16.7	.494
Dizzy, unsteady, lightheaded, faint	50.0	52.9	41.7	.502
Derealization/depersonalization	21.7	23.5	16.7	.620
Fear of losing control or going crazy	30.4	32.4	25.0	.634
Fear of dying	28.3	26.5	33.3	.650
Parathesias	21.7	29.4	0	.034
Chills or hot flushes	66.7	75.8	41.7	.032

Note. MDE = Major Depressive Episode diagnosed on SCID. GAD = Generalized Anxiety Disorder.

Frequencies of Endorsed SCID OCD and PTSD Symptoms

	Full Sample	With MDE	Without MDE	
	N = 382	N = 228	N = 154	
		% Endorsed		р
Obsessive Compulsive Disorder				
Entry Item: Obsessions/compulsions	22.5	28.6	13.4	<.001
Intrusive thoughts, images, impulses	39.7	43.1	29.4	.317
More than worries	31.0	31.0	31.3	.983
Efforts to ignore/suppress/neutralize	31.6	31.7	31.3	.973
Recognized as product of own mind	43.6	43.9	42.9	.946
Compulsions are repetitive behaviors	58.3	62.3	47.4	.258
Compulsions aimed at reducing distress or preventing events	40.0	41.2	36.8	.742
Recognized as excessive or unreasonable	61.2	62.5	57.9	.727
Cause marked distress, time-consuming, significantly interfere	26.5	29.2	20.0	.435
Post-Traumatic Stress Disorder				
Entry Item: Nightmares/flashbacks/intrusive thoughts	16.6	19.6	12.0	.051
Experienced event involving actual/threatened death	56.3	55.6	57.9	.863
Response involved fear/hopelessness/horror	59.6	59.5	60.0	.971
Recurrent intrusive distressing recollections	71.1	74.2	64.3	.497
Recurrent distressing dreams	64.4	67.7	57.1	.492
Acting or feeling as if event was recurring	33.3	41.9	14.3	.069
Intense psychological distress to cues	53.3	61.3	35.7	.111
Physiological reactivity to cues	54.5	60.0	42.9	.287
Efforts to avoid thoughts, feelings, conversations about event	60.0	58.6	63.6	.772
Avoiding activities/places related to event	61.5	71.4	36.4	.043
Inability to recall important aspect of event	25.0	31.0	9.1	.152
Diminished interest/participation in activities	47.5	51.7	36.4	.385
Detachment or estrangement from others	37.5	44.8	18.2	.120
Restricted range of affect	39.5	46.4	20.0	.142
Sense of foreshortened future	39.5	44.8	22.2	.226
Difficulty falling/staying asleep	76.7	76.0	80.0	.847
Irritability/outbursts of anger	60.0	64.0	40.0	.317
Difficulty concentrating	50.0	52.0	40.0	.624
Hypervigilance	63.3	68.0	40.0	.236
Exaggerated startle response	53.3	48.0	80.0	.190

Note. MDE = Major Depressive Episode diagnosed on SCID. OCD = Obsessive Compulsive Disorder. PTSD = Post-Traumatic Distress Disorder.

Author Manuscript