What is anxious depression? Overlap and agreement between different definitions

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INTRODUCTION

Anxiety is common in depressed patients. However, a problem with the research on the significance of anxiety in depressed patients is that anxiety has been characterized in different ways. Moreover, little research has examined the concordance and overlap between the various definitions of anxious depression. DSM-5, for the first time, officially acknowledged the importance of anxiety in depressed patients by providing criteria for an anxious distress specifier of major depression. With research on the DSM-5 anxious distress specifier (DADS) just beginning, it will be important to understand how defining anxious depression according to DSM-5 agrees with previously studied definitions. In the present report from the Rhode Island Methods to Improve Diagnostic Assessment and Services (MIDAS) project, we examined the association between the DADS and 6 other approaches towards defining anxious depression.

METHODS

- Participants: 331 partial hospital patients with a principal diagnosis of major depressive disorder.
- 25% male, 71% female, 4% transgender
 - 71% white
 - 47% never married, 22% married, 13% divorced
 - 32% graduated 4-year college
 - Mean age of 37.0 (SD=14.8, range 18-80).

Measures:

- Structured Clinical Interview for DSM-IV (SCID; 4)
- Schedule for Affective Disorders and Schizophrenia (SADS; 5)
- 17-item Hamilton Depression Rating Scale (HAMD; 6)
- Hamilton Anxiety Rating Scale (HAMA; 7)
- DSM-5 Anxious Distress Specifier Interview (DADSI; 8)

Analyses:

- Overall percentage agreement between 7 definitions of anxious depression
- Chance corrected level of agreement (Kappa).
- Pearson correlations between the dimensional scores.

RESULTS

- The mean number of anxious depression definitions met was 4.7 (SD=2.1).
- Only 4.2% (n=14) of the 331 patients did not meet any anxious depression definition, and 28.1% (n=93) met all 7 definitions. For each definition, almost all of the patients met at least one other definition (Table 1).

Table 1: Percentage Classified as Anxious Depression According to Different Definitions

	Frequency		Meets Another Definition		Number of Additional Definitions Met	
	%	n	%	n	Mean	SD
DADS	78.2	259	97.7	253	4.3	1.7
HAMD Anxiety Somatization (A/S) Factor ≥ 7	57.1	188	100.0	188	5.1	1.2
SADS Psychic Anxiety Item ≥ 3	79.2	262	98.5	258	4.3	1.7
HAMD 3-item Anxiety Subscale ≥ 6	41.3	136	100.0	136	5.4	1.0
HAMA ≥ 20	69.2	229	98.7	226	4.6	1.5
DSM-IV Anxiety Disorder Diagnosis	73.1	242	100.0	242	4.5	1.6
DSM-5 Anxiety Disorder Diagnosis	71.0	235	100.0	235	4.6	1.5

The level of agreement between the definitions was significant, albeit modest (median kappa = .28; Table 2).

Correlations between the dimensional scores were higher than the agreement coefficients of dichotomous subtyping (median r = .51; Table 3).

DISCUSSION

The modest association between the different definitions of anxious depression suggests that the results based on one approach towards subtyping may not generalize to the DADS. It therefore cannot be assumed that the DADS is valid just because other definitions of anxious depression have been shown to be valid.

In determining the best approach to identifying anxious depression one should consider clinical utility. Given the ease of assessing the DADS, future studies should examine the incremental validity of the more time-consuming evaluation of each DSM-5 anxiety disorder offers.

Limitations

- Replication in outpatient samples and in samples with different demographic characteristics is warranted.
- The ratings on the clinician scales were not independent of each other.

Table 2. Concordance Among Different Approaches

	DADS		HAMD A/S Factor		SADS Psychic Anxiety		HAMD 3-item Anxiety Subscale		HAMA		DSM-IV Anxiety Disorder	
	kappa	agreement (%)	kappa	agreement	kappa	agreement	kappa	agreement	kappa	agreement	kappa	agreement
DADS	--	--	--	--	--	--	--	--	--	--	--	--
HAMD (A/S) Factor ≥ 7	.23	64.7	--	--	--	--	--	--	--	--	--	--
SADS Psychic Anxiety ≥ 3	.29	76.1	.34	69.9	--	--	--	--	--	--	--	--
HAMD Anxiety Subscale ≥ 6	.16	53.8	.59	78.7	.29	60.8	--	--	--	--	--	--
HAMA ≥ 20	.28	71.6	.52	77.5	.35	74.9	.39	67.2	--	--	--	--
DSM-IV Anxiety Disorder	.21	70.7	.30	67.2	.14	68.6	.17	55.0	.19	66.5	--	--
DSM-5 Anxiety Disorder	.19	69.2	.30	66.9	.16	68.3	.18	55.9	.19	66.2	.95	97.9

Table 3. Correlations Between Dimensional Assessments of Different Approaches Towards Assessing Anxious Depression

	DADS	HAMD A/S Factor	SADS Psychic Anxiety	HAMD Anxiety Subscale	HAMA	DSM-IV Anxiety Disorder
DADS	--	--	--	--	--	--
HAMD (A/S) Factor ≥ 7	.52	--	--	--	--	--
SADS Psychic Anxiety ≥ 3	.51	.58	--	--	--	--
HAMD Anxiety Subscale ≥ 6	.56	.83	.65	--	--	--
HAMA ≥ 20	.56	.75	.52	.73	--	--
DSM-IV Anxiety Disorder	.36	.32	.25	.31	.29	--
DSM-5 Anxiety Disorder	.33	.30	.23	.30	.36	.95

References:

1. First, M.B., Spitzer, R.L., Williams, J.B.W., Gibbon, M., 1997. Structured Clinical Interview for DSM-IV (SCID). American Psychiatric Association,
2. Endicott, J., Spitzer, R.L., 1978. A diagnostic interview: The Schedule for Affective Disorders and Schizophrenia. Arch. Gen. Psychiatry 35.
3. Hamilton, M., 1960. A rating scale for depression. J. Neurol. Neurosurg. Psychiatry 23, 56-62.
4. Hamilton, M., 1959. The assessment of anxiety states by rating. Br. J. Med. Psychol. 23, 50-55.
5. Zimmerman, M., Clark, H., McGonigal, P., Harris, L., 2017a. Reliability and validity of the DSM-5 Anxious Distress Specifier Interview. Compr. Psychiatry 76, 11-17.