



Identifying the Cognitive and Affective Dimensions of PMDD amidst Methodological Heterogeneity: A Scoping Review of DSM-5 Era Cohort Studies

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1 INTRODUCTION

Premenstrual Dysphoric Disorder (PMDD) is a severe, hormonally mediated mood disorder triggered by menstrual cycle fluctuation. Diagnosis of PMDD requires the presence of at least one of four core affective symptoms—**affective lability, anger/irritability, depressed mood, or anxiety**—and a total of five symptoms across all criteria. Symptoms must follow a temporal pattern, emerging in the week before menstruation and resolving or becoming minimal within a few days postmenses. To confirm cyclicity, diagnosis requires prospective daily symptom ratings across at least two symptomatic cycles.³

The Complexity of PMDD Research

PMDD's unique time course, tied to the menstrual cycle, presents methodological challenges that increase heterogeneity across studies:

1. Prospective vs. Retrospective Diagnosis:

Although daily prospective symptoms across two cycles improves validity and recall bias¹⁶, it places a considerable burden on participants. As a result, some studies rigorously confirm cohorts through prospective diagnosis, while others rely on less stringent retrospective methods.

2. Within-person vs. Between-subject Design:

The menstrual cycle is a within-person process; symptoms must be interpreted relative to an individual's other phases.⁵⁰ Between-subject designs risk conflating individual differences with true cyclical effects, making phase-specific, within-subject studies more suitable.⁵⁰

3. Overlapping and Subthreshold Conditions:

Severe PMS and Menstrually Related Mood Disorders (MRMDs) share symptoms, timing, and hormonal triggers with PMDD but differ in diagnostic criteria and severity.^{18, 19, 25} Studies vary in whether they include or separately identify subthreshold cases.

This Scoping Review

Despite the clinical significance of PMDD's symptom expression, few studies have examined the psychological mechanisms underlying the disorder.¹¹ **This scoping review aims to identify the psychological dimensions empirically studied in PMDD cohorts since its inclusion in DSM-5 as a full depressive disorder.** Using a systematic strategy designed for the disorder's unique methodological complexities, we aim to map recent literature investigating cognitive and affective constructs in PMDD.

RESEARCH QUESTION

Which psychological dimensions, conceptualized through cognitive and affective constructs, have been the focus of empirical study of PMDD since the DSM-5?

RESEARCH AIM

Examine and list the cognitive and affective constructs explored in PMDD research since the publication of the DSM-5.

2 METHODS

Databases

PsycINFO, Web of Science & Medline

Inclusion Criteria

- 1) Empirical, quantitative, peer-reviewed
- 2) Published between 2013–2024
- 3) Examined a cognitive and/or affective construct
- 4) Used repeated, phase-specified assessments*
- 5) Included a PMDD cohort*

Exclusion Criteria

- 1) Studies focused on comorbid conditions, interventions, treatments, or psychometric development
- 2) Dissertations

Search Terms

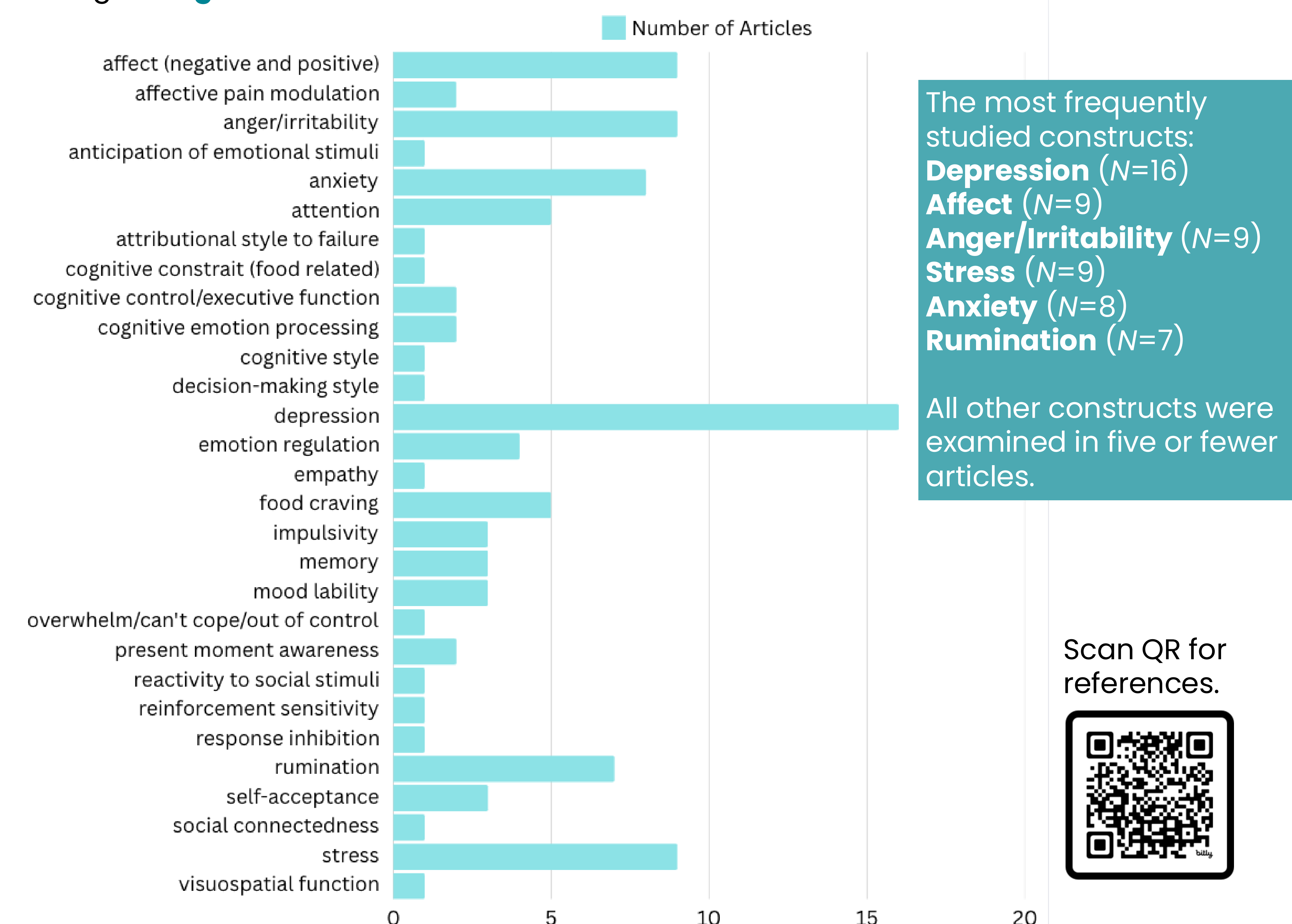
"Premenstrual Dysphoric Disorder" OR "PMDD" AND [a list of cognitive and affective constructs tailored to each database's thesaurus]

*These criteria were selected to address the methodological heterogeneity in PMDD research discussed in the Introduction. To balance breadth with a focused scope, we targeted repeated, phase-level studies without subthreshold cohorts, while allowing inclusion of retrospectively diagnosed samples.

3 RESULTS

A total of 36 articles met criteria, each using repeated, phase-specific assessments to examine the psychological dimensions in PMDD cohorts since the DSM-5. See QR link below for references—the 36 articles included in the review are demarcated with an asterisk (*).

The following **29 cognitive and affective constructs** were identified across these 36 articles.



4 DISCUSSION

Scoping reviews map existing literature, identify themes, and highlight research gaps. This review examined studies that used repeated, phase-specific assessments of cognitive and affective symptoms within PMDD-only cohorts, a strategy that enables comparison across studies in a highly heterogeneous research area.

Among the 36 articles that met criteria, six psychological constructs emerged most frequently: depression, anger/irritability, stress, affect, anxiety, and rumination. Although these studies share cohort and temporal features, they differ in prospective vs. retrospectively diagnosis, a key factor influencing validity.

This review identified psychological constructs commonly studied in PMDD. Future work could examine each study's main findings by construct in the context of its diagnostic methods, a crucial step toward clarifying PMDD's psychological profile and guiding treatment.