**Worldwide prevalence and risk factors for premenstrual dysphoric disorder among adolescents: A protocol for a systematic review and meta-analysis**

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**Review question / Objective:** Worldwide prevalence and risk factors for premenstrual dysphoric disorder among adolescents.

**Condition being studied:** It is well known that premenstrual dysphoric disorder (PMDD) is prevalent in women of childbearing age as a common disease. But little noticed that PMDD is becoming prevalent among adolescents than before. To the best of our knowledge, there is a lack of reliable estimates on the prevalence and risk factors among female adolescents.

**Information sources:** Electronic databases (from January 2000 onwards), including PubMed, MEDLINE, WoS (Clarivate Analytics), Embase, Google Scholar, CNKI, Chinese VIP Information, Wanfang Database and CBM will be searched.

**INPLASY registration number:** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 01 May 2021 and was last updated on 01 May 2021 (registration number INPLASY202150004).

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**Support:** NFC.

**Review Stage at time of this submission:** The review has not yet started.

**Conflicts of interest:** None declared.
is a lack of reliable estimates on the prevalence and risk factors among female adolescents.

METHODS

Participant or population: Female adolescents.

Intervention: Not applicable.

Comparator: Not applicable.

Study designs to be included: Observational studies, including cross-sectional, cohort or case-control studies, conducted in female adolescents reporting on the prevalence of PMDD will be included.

Eligibility criteria: Observational studies, including cross-sectional, cohort or case-control studies, conducted in female adolescents reporting on the prevalence of PMDD will be included. Where multiple papers were generated from the same data with same outcome, only the most relevant paper will be included. Studies published in English or Chinese through May 1, 2021 will be included.

Information sources: Electronic databases (from January 2000 onwards), including PubMed, MEDLINE, WoS (Clarivate Analytics), Embase, Google Scholar, CNKI, Chinese VIP Information, Wanfang Database and CBM will be searched.

Main outcome(s): The primary outcome will be the prevalence of PMDD. Secondary outcomes will be the prevalence of any risk factors in association with PMDD.

Quality assessment / Risk of bias analysis: The quality assessment will consider the suitability of the research design to the research objectives, the risk of deviation, the choice of outcome measurement methods, the quality of the report, and the versatility. The methodological quality of the included studies will be evaluated by two independent reviewers.

Strategy of data synthesis: Data synthesis will be performed by using Meta-analysis software version 3.0 (CMA-3.0). A forest plot with random or fixed-effects model will be performed for quantitative synthesis. If there is significant heterogeneity, the random-effects model will be used while the fixed-effects model if not.

Subgroup analysis: We will perform the subgroup analysis according to the sample situation of the included study.

Sensitivity analysis: Sensitivity analyses were performed by using a leave-one-out method by iteratively removing a study from the meta-analysis to assess the changes of overall effects.

Language: English or Chinese.

Country(ies) involved: China.

Keywords: Premenstrual dysphoric disorder, prevalence, risk factors, Systematic review, protocol.

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