

Prevalence of Sexual Dysfunction among Females with Systemic Lupus Erythematosus: A Systematic Review and Meta-analysis

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ADMINISTRATIVE INFORMATION

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Conflicts of interest - None declared.

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Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 23 July 2025 and was last updated on 23 July 2025.

INTRODUCTION

Review question / Objective The prevalence of female sexual dysfunction (FSD) among females with systemic lupus erythematosus (SLE) is inconsistent, and whether SLE is a risk factor for FSD among females remains controversial. Therefore, this study used systematic review and meta-analysis to estimate the prevalence of FSD among females with SLE and explore the relationship between SLE and FSD.

Condition being studied Female sexual dysfunction (FSD) is a common public health problem that troubles females and affects marital life in the worldwide medical field, which covering various aspects of sexual functioning such as desire, arousal, lubrication, orgasm, satisfaction, and dyspareunia disorders. FSD can be divided into organic, psychological, and mixed types. The occurrence and progression of FSD involves

complex pathophysiologic processes, including anatomic, psychological, neurobiological, and hormonal aspects. FSD might cause a negative impact on females' physical and mental health, marital relationships, and quality of life. However, the etiopathogenesis of FSD have not yet been completely elucidated. In recent years, with the development of society and medicine, female sexual medicine has begun to receive attention.

METHODS

Participant or population Females with SLE.

Intervention Not Applicable.

Comparator Not Applicable.

Study designs to be included No restriction was placed on study type.cross-sectional and case-control studies.

Eligibility criteria We considered studies eligible if they reported the prevalence of FSD among females with SLE. The exclusion criteria consisted of the following: (1) case reports, editorials, reviews, and letters to the editor; (2) studies with insufficient information on FSD definition; (3) duplicates, or surveys investigating the same sample; and (4) articles with no extractable data on the main outcomes.

Information sources PubMed, Cochrane Library, Web of Science, and Embase.

Main outcome(s) Name of first author, year of publication, study region (country), study design, mean or median age, assessment method of FSD (FSD assessment scale), mean age and duration of SLE (or median), sample size, number of females with FSD, FSD prevalence, and risk factors for FSD among females with SLE. For this review, we assessed these risk factors using logistic regression (odds ratio [OR], hazard ratio, or relative risk with 95% CI). Additionally, we attempted to extract the data regarding the number of healthy controls without SLE (if available) and number of controls with FSD (if available).

Quality assessment / Risk of bias analysis The Newcastle-Ottawa Scale (NOS) and Agency for Healthcare Research and Quality (AHRQ).

Strategy of data synthesis Meta-analysis was conducted with Stata 16.0 software (StataCorp). The Q test was used to analyze the heterogeneity among the results of the studies (test level, $\alpha = 0.1$).¹² was utilized to quantitatively assess the magnitude of heterogeneity. Based on I² statistics, heterogeneity was categorized as high (>75%), moderate (25%-75%), and low (50% and/or $P < .05$ indicated high heterogeneity, the random model was used; otherwise, the fixed model was used. Potential sources of heterogeneity were identified through subgroup analyses. If grouped data on subgroup categories were not available, they were excluded. Subgroup analyses and meta-regression were utilized to identify the origins of heterogeneity. In addition, the meta-analysis was subjected to a sensitivity analysis to eliminate each study individually. Publication bias was assessed by visually examining the funnel plot and using Egger's test. $P < .05$ was considered statistically significant.

Subgroup analysis When there was high heterogeneity, potential sources of heterogeneity were discovered via subgroup analyses.

Sensitivity analysis A sensitivity analysis was applied to the meta-analysis to exclude the effect of data from individual studies on survival outcomes.

Language restriction None.

Country(ies) involved China.

Keywords Sexual dysfunction; Systemic lupus erythematosus; Prevalence; Systematic review; Meta-analysis.

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