

((((((((((("Depression"[Mesh] OR "Depressive Disorder"[Mesh] OR "Depressive Disorder, Major"[Mesh] OR "Depressive Disorder, Treatment-Resistant"[Mesh] OR "Depression, Postpartum"[Mesh] OR "Bipolar Disorder"[Mesh] OR "Adjustment Disorders"[Mesh] OR "Affective Disorders, Psychotic"[Mesh] OR "Dysthymic Disorder"[Mesh]) OR ("Mood Disorders"[Mesh])) OR ("Antidepressive Agents"[Mesh])) OR ("Mental Health"[Mesh])) OR ("Psychological Distress"[Mesh])) OR ("Mental Disorders"[Mesh])) OR ("Stress, Psychological"[Mesh])) OR ("Burnout, Psychological"[Mesh])) OR (((Depressive Symptoms[Title/Abstract] OR (Depressive Symptom[Title/Abstract])) OR (Symptom, Depressive[Title/Abstract])) OR (Emotional Depression[Title/Abstract])) OR (Depression, Emotional[Title/Abstract])) OR (Depressive Disorders[Title/Abstract])) OR (Disorder, Depressive[Title/Abstract])) OR (Disorders, Depressive[Title/Abstract])) OR (Neurosis, Depressive[Title/Abstract])) OR (Depressive Neuroses[Title/Abstract])) OR (Depressive Neurosis[Title/Abstract])) OR (Neuroses, Depressive[Title/Abstract])) OR (Depression, Endogenous[Title/Abstract])) OR (Depressions, Endogenous[Title/Abstract])) OR (Endogenous Depression[Title/Abstract])) OR (Endogenous Depressions[Title/Abstract])) OR (Depressive Syndrome[Title/Abstract])) OR (Depressive Syndromes[Title/Abstract])) OR (Syndrome, Depressive[Title/Abstract])) OR (Syndromes, Depressive[Title/Abstract])) OR (Depression, Neurotic[Title/Abstract])) OR (Depressions, Neurotic[Title/Abstract])) OR (Neurotic Depression[Title/Abstract])) OR (Neurotic Depressions[Title/Abstract])) OR (Melancholia[Title/Abstract])) OR (Melancholias[Title/Abstract])) OR (Unipolar Depression[Title/Abstract])) OR (Depression, Unipolar[Title/Abstract])) OR (Depressions, Unipolar[Title/Abstract])) OR (Unipolar Depressions[Title/Abstract])) OR (Depressive Disorders, Major[Title/Abstract])) OR (Major Depressive Disorders[Title/Abstract])) OR (Major Depressive Disorder[Title/Abstract])) OR (Paraphrenia, Involutional[Title/Abstract])) OR (Involutional Paraphrenia[Title/Abstract])) OR (Involutional Paraphrenias[Title/Abstract])) OR (Paraphrenias, Involutional[Title/Abstract])) OR (Psychosis, Involutional[Title/Abstract])) OR (Involutional Psychoses[Title/Abstract])) OR (Involutional Psychosis[Title/Abstract])) OR (Psychoses, Involutional[Title/Abstract])) OR (Depression, Involutional[Title/Abstract])) OR (Involutional Depression[Title/Abstract])) OR (Melancholia, Involutional[Title/Abstract])) OR (Involutional Melancholia[Title/Abstract]))) OR (((("Anxiety"[Mesh] OR "Performance Anxiety"[Mesh] OR "Anxiety Disorders"[Mesh] OR "Anti-Anxiety Agents"[Mesh] OR "Anxiety, Separation"[Mesh] OR "Phobia, Social"[Mesh]) OR ("Neurotic Disorders"[Mesh])) OR (((Angst[Title/Abstract] OR (Social Anxiety[Title/Abstract])) OR (Anxieties,

Social[Title/Abstract])) OR (Anxiety, Social[Title/Abstract])) OR (Social Anxieties[Title/Abstract])) OR (Hypervigilance[Title/Abstract])) OR (Nervousness[Title/Abstract])) OR (Anxiousness[Title/Abstract])) OR (Anxieties, Performance[Title/Abstract])) OR (Anxiety, Performance[Title/Abstract])) OR (Performance Anxieties[Title/Abstract])) OR (Anxiety Disorder[Title/Abstract])) OR (Disorder, Anxiety[Title/Abstract])) OR (Disorders, Anxiety[Title/Abstract])) OR (Neuroses, Anxiety[Title/Abstract])) OR (Anxiety Neuroses[Title/Abstract])) OR (Anxiety States, Neurotic[Title/Abstract])) OR (Anxiety State, Neurotic[Title/Abstract])) OR (Neurotic Anxiety State[Title/Abstract])) OR (Neurotic Anxiety States[Title/Abstract])) OR (State, Neurotic Anxiety[Title/Abstract])) OR (States, Neurotic Anxiety[Title/Abstract])) OR (((((((((((((((Depression[Title/Abstract]) OR (Depressive Disorder[Title/Abstract])) OR (Depressive Disorder, Major[Title/Abstract])) OR (Depressive Disorder, Treatment-Resistant[Title/Abstract])) OR (Depression, Postpartum[Title/Abstract])) OR (Bipolar Disorder[Title/Abstract])) OR (Adjustment Disorders[Title/Abstract])) OR (Affective Disorders, Psychotic[Title/Abstract])) OR (Dysthymic Disorder[Title/Abstract])) OR (Antidepressive Agents[Title/Abstract])) OR (Mood Disorders[Title/Abstract])) OR (Mental Health[Title/Abstract])) OR (Psychological Distress[Title/Abstract])) OR (Mental Disorders[Title/Abstract])) OR (Stress, Psychological[Title/Abstract])) OR (Burnout, Psychological[Title/Abstract])) OR (((((((Anxiety[Title/Abstract]) OR (Performance Anxiety[Title/Abstract])) OR (Anxiety Disorders[Title/Abstract])) OR (Anti-Anxiety Agents[Title/Abstract])) OR (Anxiety, Separation[Title/Abstract])) OR (Phobia, Social[Title/Abstract])) OR (Neurotic Disorders[Title/Abstract])) AND (("Melanosis"[Mesh]) OR (((((((Melanoses[Title/Abstract]) OR (Melanism[Title/Abstract])) OR (Freckles[Title/Abstract])) OR (Freckle[Title/Abstract])) OR (Chloasma[Title/Abstract])) OR (Chloasmas[Title/Abstract])) OR (Melasma[Title/Abstract])) OR (Melasmas[Title/Abstract]))

2 Supplementary Figures and Tables

2.1 Supplementary Figures

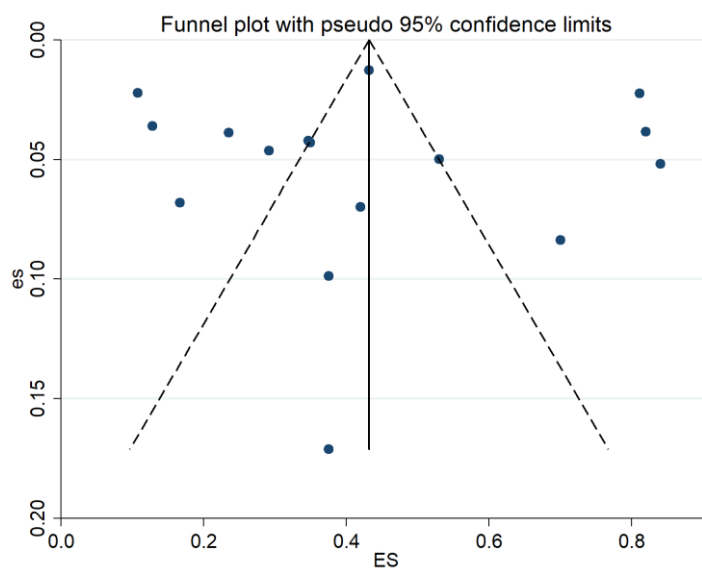


Figure 1 Funnel plot for the prevalence of depression in melasma.

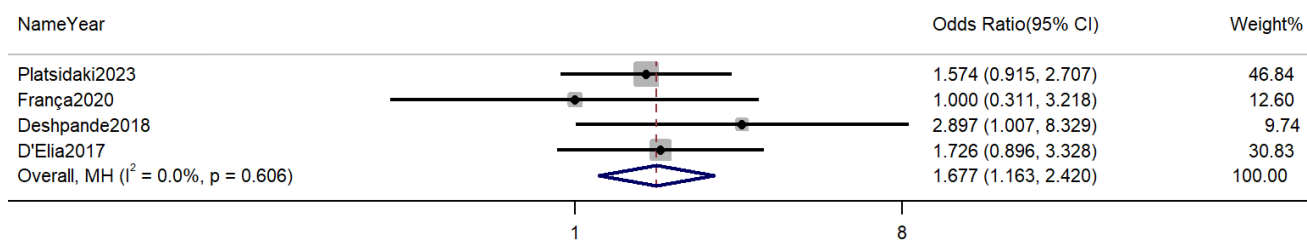


Figure 2 OR of depression between patients with melasma and health controls.

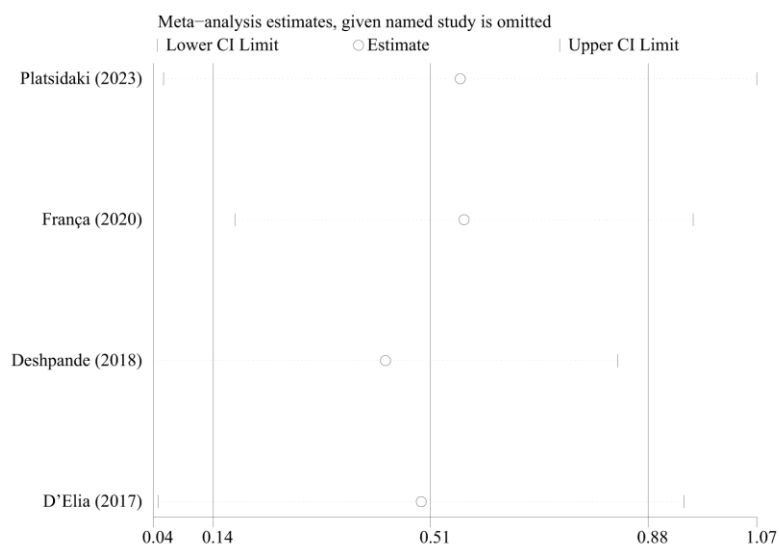


Figure 3 Sensitivity analysis for the OR.

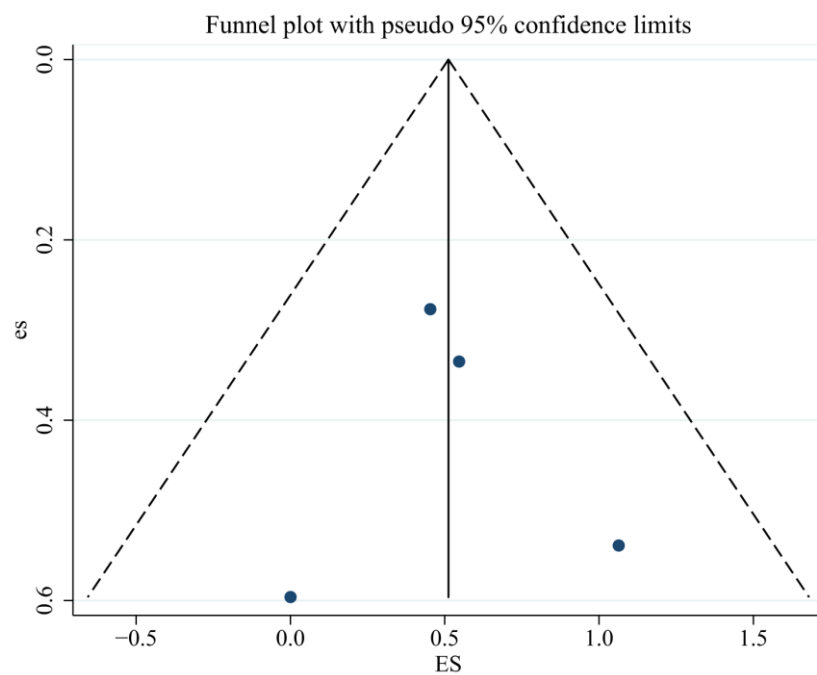


Figure 4 Funnel plot for OR.

2.2 Supplementary Table

Table 1 Quality assessment of included studies.

Author, year	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Total ^a	Quality ^b
Platsidaki 2023	Y	U	N	Y	Y	Y	U	Y	Y	6	High
Kumar 2023	Y	U	N	Y	U	Y	U	N	U	3	Low
Naheed 2021	Y	U	N	Y	Y	Y	U	Y	Y	6	High
Espósito 2021	U	U	Y	Y	U	Y	U	Y	U	4	Median
Dabas 2020	Y	U	N	N	Y	Y	U	Y	U	4	Median
Jawaid 2020	Y	N	N	Y	Y	Y	U	Y	Y	6	High
França 2020	Y	U	N	Y	Y	Y	U	Y	Y	6	High
Shi 2019	N	U	N	Y	Y	Y	Y	Y	Y	6	High
Deshpande 2018	Y	U	N	Y	Y	Y	Y	Y	Y	7	High
Kanish 2017	Y	U	N	Y	U	Y	Y	Y	U	5	Median
D'Elia 2017	Y	N	N	Y	Y	U	U	Y	Y	5	Median
Fatma 2016	U	U	N	Y	Y	Y	U	U	Y	4	Median
Jaiswal 2016	Y	N	N	Y	Y	Y	U	Y	Y	6	High
Rodriguez-Arambula 2014	U	U	N	Y	U	Y	U	U	U	2	Low
Bashir 2010	N	U	N	N	U	Y	Y	N	U	2	Low
Zhang 2010	Y	U	N	Y	Y	Y	U	U	Y	5	Median

Note. Y, yes; N, no; U, unclear; Q, question; ^aQuality score based on the Joanna Briggs Institute (JBI) Critical Joanna Briggs Institute's critical appraisal checklist for studies reporting prevalence data; Scoring 1 = yes, 0 = no/unclear; ^b Classification as follow: High-quality if total score > 5, medium-quality if total score 4-5, low-quality if total score < 4.

- Q1 Was the sample frame appropriate to address the target population?
- Q2 Were study participants sampled in an appropriate way?
- Q3 Was the sample size adequate?
- Q4 Were the study subjects and the setting described in detail?
- Q5 Was the data analysis conducted with sufficient coverage of the identified sample?
- Q6 Were valid methods used for the identification of the condition?
- Q7 Was the condition measured in a standard, reliable way for all participants?
- Q8 Was there appropriate statistical analysis?
- Q9 Was the response rate adequate, and if not, was the low response rate managed appropriately?