

INPLASY

Association between cigarette smoking and the risk of major psychiatric disorders: A systematic review and meta-analysis in depression, schizophrenia, and bipolar disorder

INPLASY202430093

doi: 10.37766/inplasy2024.3.0093

Received: 23 March 2024

Published: 23 March 2024

Hu, ZH.

Corresponding author:

Zhong-Hou Hu

13961983880@139.com

Author Affiliation:

The Fourth People's Hospital of Yancheng City.

ADMINISTRATIVE INFORMATION

Support - Not Applicable.

Review Stage at time of this submission - Completed but not published.

Conflicts of interest - None declared.

INPLASY registration number: INPLASY202430093

Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 23 March 2024 and was last updated on 23 March 2024.

INTRODUCTION

Review question / Objective To elucidate the association between cigarette smoking and the risk of major psychiatric disorders, including depression, schizophrenia, and bipolar disorder.

Rationale The smoking rate among patients with major psychiatric conditions is significantly higher than that among the general population; however, whether there is a causal association between cigarette smoking and major psychiatric disorders remains unclear.

Condition being studied A systematic review and meta-analysis of published cohort studies.

METHODS

Search strategy ("bipolar disorder" OR "bipolar" OR "affective disorder") OR ("major depression" OR "depressive") OR ("psychosis" OR

"schizophrenia" OR "schizophrenic" OR "psychotic") AND ("smoking" OR "cigarettes" OR "tobacco").

Participant or population General population initially without major psychiatric conditions.

Intervention Current or former smoking.

Comparator Nonsmoking.

Study designs to be included Cohort design.

Eligibility criteria (1) participants: general population initially without major psychiatric conditions; (2) exposure: current or former smoking; (3) control: nonsmoking; (4) outcome: effect estimates for the association between cigarette smoking and major psychiatric disorders, including major depression, schizophrenia, and bipolar disorder; and (5) study design: a study with a cohort design.

Information sources PubMed, Embase, and Cochrane Library.

Main outcome(s) Effect estimates for the association between cigarette smoking and major psychiatric disorders, including major depression, schizophrenia, and bipolar disorder.

Quality assessment / Risk of bias analysis Using the Newcastle–Ottawa Scale (NOS) for methodological quality assessment, this scale has been partially validated for quality assessment of observational studies in meta-analyses.

Strategy of data synthesis The combined relative risk (RR) with 95% CI was then calculated using the random-effects model, which considers the variability among the included studies.

Subgroup analysis Subgroup analyses were also performed for major psychiatric disorders, including major depression, schizophrenia, and bipolar disorder, according to study design, sex, smoking intensity, follow-up duration, adjusted levels, and study quality, and the differences between subgroups were compared using the interaction t-test, which assumed that the data were normally distributed.

Sensitivity analysis The robustness of the pooled conclusion was assessed using sensitivity analysis by sequentially excluding a single study from the overall analysis.

Country(ies) involved China.

Keywords cigarette smoking; depression; schizophrenia; bipolar disorder; systematic review; meta-analysis.

Contributions of each author

Author 1 - Zhong-Hou Hu.

Email: 13961983880@139.com