INPLASY

Detection Rate of Insomnia and Its Influencing Factors in Chinese Tumour Patients: a Meta-analysis

INPLASY2024110127
doi: 10.37766/inplasy2024.11.0127
Received: 30 November 2024
Published: 30 November 2024

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ADMINISTRATIVE INFORMATION

Support - None.

Review Stage at time of this submission - Preliminary searches.

Conflicts of interest - None declared.

INPLASY registration number: INPLASY2024110127

Amendments - This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 30 November 2024 and was last updated on 30 November 2024.

INTRODUCTION

Review question / Objective To explore the insomnia detection rate and its influencing factors in Chinese tumour patients, provide reference for reducing the incidence of insomnia in Chinese tumour patients. The study types are observational studies such as cohort study, case-control study and cross-sectional study.

Condition being studied Insomnia is a common health problem among cancer patients, which is not only a physical problem but also a psychological problem. Insomnia is one of the most prominent complaints among patients with cancer.It is defined as difficulty falling asleep, trouble staying asleep, early awakening, or nonrestorative sleep. The prevalence of insomnia in patients with cancer varies from 30 to 60%, which is considerably higher than that in the general population . In addition, many cancer patients do not appear to report symptoms of insomnia, assuming them to be a minor problem compared to a cancer diagnosis or treatment despite its prevalence and clinical significance, which results in insomnia remaining untreated. Insomnia and subsequent sleep disturbances can lead to fatigue, psychological disorders, and immunosuppression, which can significantly impair the quality of life and even affect the course of the disease.

METHODS

Participant or population The study population was Chinese tumour patients (≥18 years of age).

Intervention Exposures are Risk Factors for insomnia.

Comparator There will be no comparator as this is descriptive study.

Study designs to be included The included study designs are observational studies such as cohort study, case-control study and cross-sectional study.

Eligibility criteria Inclusion criteria: (1) The study population was Chinese tumour patients (≥18 years of age); (2) The exposure factors were risk factors for insomnia; (3) The outcome indicator was the incidence of insomnia, and the corresponding effect value (OR or β) and 95% CI could be extracted; (4) The included study designs are observational studies such as cohort study, case-control study,cross-sectional study, and so on; Exclusion criteria: (1) studies in languages other than Chinese and English; (2) studies with duplicate publications or where the original data are not available; (3) studies unrelated to the purpose of the study (4) animal experiments, reviews, commentaries, and reportage type studies; and (4) studies with poor quality literature.

Information sources PubMed,EmBase,Web of Science,Sinomed,Cochrane Library,CNKI,Wanfang Date and VIP.

Main outcome(s) Detection of insomnia in Chinese tumour patients.

Quality assessment / Risk of bias analysis The data were extracted and the literature quality was evaluated according to the cross-sectional study quality assessment criteria of Agency for Healthcare Research and Quality(AHRQ).
2 researchers used AHRQ to evaluate the included studies. In case of disagreement, a third researcher assisted in the judgement.The AHRQ has a total of 11 entries, and based on the total score the Studies were classified as low quality studies (0-3 points), medium quality studies (4-7 points) and high quality studies (8-11 points).

Strategy of data synthesis Statistical analysis was performed using Stata version 12.0 for Windows. Effect sizes were assessed using ORs of factors influencing insomnia in oncology patients and their 95% CIs to assess the correlation between specific factors and the occurrence of insomnia in oncology patients. Heterogeneity between studies was estimated using Cochrane's Q-test and $I^2$for heterogeneity test, $P \geq 0.1$, $I^2 < 50\%$ suggests that there is no significant statistical heterogeneity, and a fixed-effects model was used; $P < 0.1$, $I^2 \geq 50\%$ suggests that there is statistical heterogeneity a random-effects model was chosen for the combined analysis. Sensitivity analyses were performed by comparing the differences between the fixed-effects model and the random-effects model combined. We evaluated the potential publication bias by funnel plots supplemented by the Egger regression asymmetry test. $p < 0.05$ was considered statistically significant.

Subgroup analysis None.

Sensitivity analysis Sensitivity analyses were performed by comparing the differences between the fixed-effects model and the random-effects model combined.

Country(ies) involved China.

Keywords Insomnia; Tumour patients; Relevance ratio; Root cause analysis; Meta-analysis.

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