INPLASY PROTOCOL

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

Conflicts of interest:
None.

Psychological impact of high-quality nursing care on patients with esophageal cancer during perioperative period: a protocol of systematic review

Liu, XY[1]; Jiao, CH[2]; Zhao, D[3]; Chen, Y[4]; Zhang, HM[5].

Review question / Objective: **Does high-quality nursing care (HQNC) have psychological impact in patients with esophageal cancer during perioperative period (ECPP)?**
Condition being studied: **High-quality nursing care; and esophageal cancer.**
Information sources: **The following electronic databases will be searched from inception to the August 1, 2020: Cochrane Library, PUBMED, EMBASE, SinoMed, Web of Science, WANGFANG, and China National Knowledge Infrastructure. No language and publication status limitations will be applied to search all literature sources. The detailed search strategy for Cochrane Library is presented. We will also adapt similar search strategies for other electronic databases. In addition, we will search unpublished postgraduate papers in Chinese databases, abstracts of scientific conferences/symposia, and reference lists of included trials.**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 18 August 2020 and was last updated on 18 August 2020 (registration number INPLASY202080071).

INTRODUCTION

Review question / Objective: **Does high-quality nursing care (HQNC) have psychological impact in patients with esophageal cancer during perioperative period (ECPP)?**

Condition being studied: **High-quality nursing care; and esophageal cancer.**

METHODS

Participant or population: **All patients with ECPP who were diagnosed as psychological disorder (such as depression and anxiety) will be included in this study,**

regardless the ethnicity, sex, age, and economic status.

Intervention: In the experimental group, all types of HQNC were utilized for the management of psychological disorder in patients with ECPP.

Comparator: In the control group, any intervention for the management of psychological condition in patients with ECPP will be included. However, we will exclude comparators involved in any forms of HQNC.

Study designs to be included: All randomized controlled trials (RCTs) or case-control studies (CCSs) that appraise the psychological impact of HQNC in the management of ECPP without language and publication status limitations. We will exclude any other studies, such as non-clinical studies, uncontrolled studies.

Eligibility criteria: All RCTs or CCSs that appraise the psychological impact of HQNC in the management of ECPP without language and publication status limitations. We will exclude any other studies, such as non-clinical studies, uncontrolled studies.

Information sources: The following electronic databases will be searched from inception to the August 1, 2020: Cochrane Library, PUBMED, EMBASE, SinoMed, Web of Science, WANGFANG, and China National Knowledge Infrastructure. No language and publication status limitations will be applied to search all literature sources. The detailed search strategy for Cochrane Library is presented. We will also adapt similar search strategies for other electronic databases. In addition, we will search unpublished postgraduate papers in Chinese databases, abstracts of scientific conferences/symposia, and reference lists of included trials.

Main outcome(s): Outcome measurements are depression (as assessed by related scales, such as Major Depression Inventory), anxiety (as appraised by associated scales, such as Generalized Anxiety Disorder 7-item), stress (as measured by relevant tools, such as Acute Stress Disorder Scale), quality of life (as tested by connected scales, such as The Brunnsviken Brief Quality of Life Scale), and any adverse events.

Data management: Data will be extracted according to the previously designed standardized data collection form by our review team, which will be piloted calibration through at least three trials. Two authors will independently extract all essential data from the included trials. Any different opinions will be worked out by discussion with a third author. The extracted data includes study information (such as title, first author, and year of publication), characteristics of population (such as age, gender, and eligibility criteria), study setting, study methods, sample size, details of intervention and control conditions, outcome indicators, adverse events, results, findings, follow-up details, and supported findings.

Quality assessment / Risk of bias analysis: The methodological quality of all eligible RCTs will be assessed based on the guideline of Cochrane Risk of Bias Tool, and that of all CCSs will be appraised using The Newcastle-Ottawa Scale by two independent authors. When disagreements occur, the problems will be solved by discussion or consultation with a third author.

Strategy of data synthesis: RevMan 5.3 Software will be utilized for the data synthesize and data analysis. Continuous data (such as depression, anxiety) will be summarized using standardized mean difference or mean difference and 95% confidence intervals (CIs). Binary data (such as incidence of adverse reactions) will be calculated using risk ratio and 95% CIs. Statistical heterogeneity will be evaluated by I^2 statistic test. When $I^2 \leq 50\%$, reasonable heterogeneity will be considered, and a fixed-effects model will be exerted, while when $I^2 > 50\%$, substantial heterogeneity will be considered, and a random-effects model will be presented. If sufficient homogeneity among included studies is identified, we will undertake a

meta-analysis based on the similar characteristics of study and patient, interventions, comparators, and outcome measurements. On the other hand, we will explore subgroup analysis to detect the possible resources of significant heterogeneity. In addition, we will carry out a descriptive analysis by reporting written commentary to elaborate study findings.

Subgroup analysis: We will carry out subgroup analysis to identify potential sources of heterogeneity according to the characteristics of study and patient, details of interventions and controls, and outcome indicators.

Sensibility analysis: We will undertake sensitivity analysis to check the robustness and stability of study findings by removing trials with high risk of bias.

Country(ies) involved: China.

Keywords: Esophageal cancer; perioperative period; high-quality nursing care; depression; anxiety.

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