

# INPLASY PROTOCOL

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**Review Stage at time of this  
submission:** Completed but not  
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**Conflicts of interest:**  
None declared.

## Demoralization in cancer survivors – An updated systematic review and meta-analysis for quantitative studies

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**Review question / Objective:** The mean demoralization level among cancer survivors.

**Rationale:** Demoralization often results in functional impairments across all stages of cancer patients. Cancer patients are not only vulnerable during hospice but also vulnerable during their survivorship. The purpose of this review is to examine the risk of demoralization and associated risk factors among cancer survivors.

**Condition being studied:** Demoralization in cancer survivors.

**INPLASY registration number:** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 12 December 2022 and was last updated on 12 December 2022 (registration number INPLASY2022120048).

### INTRODUCTION

**Review question / Objective:** The mean demoralization level among cancer survivors.

**Rationale:** Demoralization often results in functional impairments across all stages of cancer patients. Cancer patients are not only vulnerable during hospice but also vulnerable during their survivorship. The purpose of this review is to examine the

risk of demoralization and associated risk factors among cancer survivors.

**Condition being studied:** Demoralization in cancer survivors.

### METHODS

**Search strategy:** Keywords were set. Five electronic databases (Pubmed, Cochrane, Embase, PsycINFO, ClinicalTrial.gov) were searched by the authors. We also did

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additional searching using Google search engine.

**Participant or population:** Cancer survivors who have completed the primary treatment, who are not undergoing active treatment, or who are in the cancer stage 0-2.

**Intervention:** The current review does not evaluate any effectiveness or efficacy of interventions among cancer survivors.

**Comparator:** Not applicable.

**Study designs to be included:** We included both observational and interventional studies in the current review. Once the article mentioned about the demoralization score of cancer survivors, we could include the article.

**Eligibility criteria:** There is no other additional inclusion or exclusion criteria not defined in the PICOS sections.

**Information sources:** We searched the five electronic databases, including Pubmed, Cochrane, Embase, PsycINFO, ClinicalTrial.gov. Additional search was done via Google search engine. After data extraction, the corresponding author contacted with the corresponding authors of all the included articles by e-mails for data further needed.

**Main outcome(s):** Our primary study aim was to investigate the demoralization level of cancer survivors.

**Additional outcome(s):** The authors also examined the demographic factors associated with demoralization among cancer survivors.

**Data management:** The authors used comprehensive meta-analysis software for data analysis.

**Quality assessment / Risk of bias analysis:** We utilized Newcastle-Ottawa scale, adjusted for cross-sectional studies for observational, cross-sectional studies' quality assessment. As for interventional

studies, we used Version 2 of the Cochrane risk-of-bias tool for randomized trials (RoB2) for risk of bias analysis.

**Strategy of data synthesis:** Firstly, the authors will analyze the mean score of demoralization level of all the included studies. Secondly, we will use regression analysis to evaluate the relationships between the demoralization score and demographic factors. Thirdly, we will do subgroup analysis by different cancer types. Lastly, publication bias will be examined by Egger's regression analysis.

**Subgroup analysis:** We will divide the participants into different groups by their cancer types. Subgroup analysis will be done to see if the mean demoralization score is different between subgroups.

**Sensitivity analysis:** We will use the one-study-removed method to do the sensitivity analysis in order to see if the results will be changed after removing one study.

**Language restriction:** Yes, we will clearly describe the language limits in the manuscript.

**Country(ies) involved:** Taiwan.

**Keywords:** demoralization; cancer survivors.

**Contributions of each author:**

Author 1 - Cian-Cian Lin - Author 1 designed the review, collected and analyzed the data, wrote the first draft and revised the final manuscript.

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Author 2 - Yu-Ning Her - Author 2 collected and analyzed the data, and helped writing the first draft.

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