

# INPLASY PROTOCOL

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None declared.

## Effectiveness of Internet intervention for employees with depression: a systematic review and meta-analysis

Xiong, J<sup>1</sup>; Wen, J<sup>2</sup>; Pei, G<sup>3</sup>; He, D<sup>4</sup>.

**Review question / Objective:** We aimed to systematically investigate the available evidence for Internet interventions in reducing depressive symptoms for employees.

**Condition being studied:** The effectiveness of Internet intervention for employees with depression remains unclear.

**Information sources:** In this systematic review and meta-analysis, we searched MEDLINE (Ovid), EMBASE (Elsevier), PsycINFO (EbscoHost), the Cochrane Library (Wiley), and Web of Science for articles published in English from database inception to May, 2021.

**INPLASY registration number:** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 22 June 2021 and was last updated on 22 June 2021 (registration number INPLASY202160082).

### INTRODUCTION

**Review question / Objective:** We aimed to systematically investigate the available evidence for Internet interventions in reducing depressive symptoms for employees.

**Condition being studied:** The effectiveness of Internet intervention for employees with depression remains unclear.

### METHODS

**Search strategy:** (Employees\* OR staff\* OR clerk\*) and (Randomized Controlled Trial\* or RCT\*) and (Depression\* or Depressive\*) and (Digital intervention\* or Computerized\* or Computerized intervention\* Internet-delivered\* or Internet intervention\* or Smartphone intervention\* or Game-based internet\* or Web-based intervention\*).

**Participant or population:** The Employees.

**Intervention:** The Internet interventions.

**Comparator:** Control group(eg, active control, treatment as usual, wait-list control).

**Study designs to be included:** We identified 21 eligible studies that were included in the meta-analysis. The included studies involved a total of 5898 participants (2813 who received Internet intervention and 3085 who were in the control group).

**Eligibility criteria:** 1) Outcome measures included the frequently used scales of measuring depression [eg, the Center for Epidemiological Studies Depression scale (CES-D), the Hospital Anxiety and Depression Scale (HADS), the Maslach Burnout Inventory-General Scale (MBI), Patient Health Questionnaire-9 (PHQ-9), the Beck Depression Inventory II (BDI-II).et.al]; 2) Participants had to be employees, in order to maximise methodological quality participants in the original literature allocation had to be randomized controlled trial; 3) At least one control condition in the study had to be an inactive intervention (for example, waitlist, no intervention, placebo, monitoring, an attention control group) or another treatment (psychological or pharmacological); 4)The original article about employees needed to be available in English and published in a peer-reviewed journal and not be further analysis of data from a randomized controlled trial.

**Information sources:** In this systematic review and meta-analysis, we searched MEDLINE (Ovid), EMBASE (Elsevier), PsycINFO (EbscoHost), the Cochrane Library (Wiley), and Web of Science for articles published in English from database inception to May, 2021.

**Main outcome(s):** Depression

**Additional outcome(s):** The mental health problems.

**Data management:** The majority of interventions (20/21, 95%) were delivered via the Internet, and the most common intervention was internet-based cognitive behavioral therapy (4/21, 19%).

**Quality assessment / Risk of bias analysis:** Data were synthesized using a systematic narrative synthesis framework, and formal quality assessments were conducted to address the risk of bias.

**Strategy of data synthesis:** Heterogeneity between studies was substantial ( $I^2=83%$  ). There was no evidence of publication bias, and the quality of evidence according to the GRADE criteria was generally high.

**Subgroup analysis:** country (America; Australia; Germany; Japan; Netherlands; Sweden; UK); outcome measure (BDI-II;CES-D;DASS HADS;OTHER;PHQ-9) control group (Active control;Treatment as usual; Waitlist control); Duration (< 3 months;  $\geq$  3 months).

**Sensitivity analysis:** To avoid the consequent potential for inflation of the treatment effect, we did a post-hoc sensitivity analysis by removing these studies from the meta-analysis.

**Language:** English.

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

**Other relevant information:** None.

**Keywords:** Depression; Employees; Internet intervention; Meta-analysis.

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