

INPLASY PROTOCOL

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None declared.

INTRODUCTION

Review question / Objective: The aim of this systematic review is to investigate the efficacy of mindfulness interventions on physiologic and psychological outcomes in heart disease.

Condition being studied: Heart disease is one of the most important life-threatening conditions and various psychological and

Efficacy of online mindfulness in heart disease: A systematic review protocol

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Review question / Objective: The aim of this systematic review is to investigate the efficacy of mindfulness interventions on physiologic and psychological outcomes in heart disease.

Condition being studied: Heart disease is one of the most important life-threatening conditions and various psychological and physical treatments are considered for them. one of the psychological interventions which is used widely in a chronic disease context, is mindfulness-based interventions that could be delivered online.

Information sources: Web OF Science Core Collection; EMBASE; Scopus; Psych Info.

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 16 October 2021 and was last updated on 16 October 2021 (registration number INPLASY2021100055).

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METHODS

Search strategy: (Web OR cyber* OR app-delivered OR "Virtual Reality*" OR

"extended reality*" OR "mixed reality*" OR "augmented reality" OR "head mounted display" OR "computer-generated simulation" OR "virtual environment" OR VR OR ER OR "smart watch*" OR Wearable* OR PDA OR "personal digital assistant*" OR app OR apps OR "cloud app*" OR smartphone* OR "smart phone*" OR "smartphone-based" OR mobile* OR phone* OR cellphone* OR "cell phone*" OR "cellular phone*" OR mhealth OR "mobile health" OR "digital health" OR ehealth OR "e-health" OR telemedicine OR "telehealth" OR Telephone* OR tablet* OR "computer tablet*" OR "tablet computer*" OR "Pocket PC*" OR "palm pilot*" OR ipad OR "i-pad" OR iphone OR "hand held device*" OR "handheld device*" OR app-based OR Android OR ios OR Blog OR ipad OR ipod OR mobilephone OR SMS OR "social media*" OR Facebook OR Skyp* OR Whatsapp OR twitt* OR messag* OR texting OR online OR digital OR computer* OR virtual OR e-therapy OR "e therapy" OR internet* OR web-based OR internet-delivered OR "internet delivered" OR online-intervention OR "digital intervention*" OR "assistive technology" OR "digital game*" OR "computerized assessment" OR handheld computer OR "electronic portable" OR "video game technology" OR "Real-time simulator" OR "digital assistants" OR digitization OR "automated test" OR "camera-based" OR "Electronic Application" OR "ios" OR "mHealth" OR "Mobile" OR "Mobile App" OR "Mobile Appl*" OR "Mobile Apps" OR "social Media" OR "smart devic*" OR "phone-assist*" OR "web application" OR "mobile learning" OR "mobile device*" OR "smart mobile" OR "App Store" OR "itunes" OR "twitter" OR "weChat" OR "instagram" OR "youtube" OR "tiktok" OR "apple watch" OR "i-watch" OR "i watch" OR "Android" OR "care-app" OR "Android-based" OR mRehab* OR "tablet-based" OR "m-health" OR "m health" OR phone* OR cell* OR portabl* OR "Short Message Service*" OR AI OR "artificial intell*" OR "deep learning" OR "machine learning" OR ML OR digital* OR computer* OR "smart glasses" OR simulated reality OR telehealth OR tele* OR Blog OR CD-ROM OR DVD OR Chat OR e-health OR "electronic health*"

OR e-Portal OR ePortal OR eTherap* OR "Real time simulator" OR forum OR game* OR gamification* OR "information technolog*" OR "instant messag*" OR interapy OR website* OR e-mail* OR email* OR m-health OR multi-media OR multimedia OR online* OR on-line OR software OR telecomm* OR telehealth* OR telemonitor* OR "tele psych*" OR teletherap* OR "text messag*" OR tape OR taped OR video* OR YouTube OR podcast* OR remote OR distance OR "Computer Communication Networks" OR "artificial intelligence" OR "deep learning" OR Computer-Assisted OR "Computer Assisted" OR "Information and communication technology" OR "Information and communication technologies" OR Emedicine OR I-phone OR "e medicine" OR e-medicine OR etherap* OR "e therap*" OR e-therap*) AND (mindfulness OR mindful* OR "body mind" OR "mindfulness based stress reduction" OR Meditat* OR MBSR OR MBCT OR meditations OR vipassana OR yoga OR "mind body therapy" OR IBMT OR "insight meditation" OR "mindful movement" OR "guided imagery") AND (heart OR cardiac OR coronary OR cardio-vascular OR cardi* OR CAD OR CHD OR myocardial OR heart-failure OR cardiopathy OR "coronary illness" OR angina* OR "cardiac infarction" OR "coronary artery disease" OR "ischemic heart disease" OR angi* OR "congestive heart failure").

Participant or population: Participants had to have heart disease, which for the purposes of this review included coronary heart disease, angina, myocardial infarction, heart failure, cardiorespiratory failure. People at a high risk of developing heart disease including those with hypertension were also included.

Intervention: Online Mindfulness-Based Interventions

Comparator: All other interventions will be included.

Study designs to be included: The study designs were RCT.

Eligibility criteria: RCTs comparing MBIs (Mindfulness-Based Interventions) via internet, phone or smartphone, video, tape or social media with inactive (e.g., placebo, no intervention, or waitlist control) or any other active interventions. excluded studies if they met one of the following criteria: (1) the article that is a review or meta-analysis, (2) data from abstracts, (3) studies in which the mindfulness practice combined with other psychological interventions such as Psychiatric medication or CBT, Etc. **PARTICIPANT:** For inclusion, participants have to have heart disease, which for the purposes of this review included coronary heart disease, angina, myocardial infarction, heart failure, cardiorespiratory failure. People at a high risk of developing heart disease including those with hypertension were also included. There is no age and sex limitation. **Study design:** The study designs could be RCT. **Data analysis type:** The statistical results of the study should be available and presented quantitatively and qualitatively **Follow up:** The duration of the follow up does not matter. **Other:** Data were from letters excluded.

Information sources: Web OF Science Core Collection; EMBASE; Scopus; Psych Info.

Main outcome(s): Various quantitative outcomes from RCTs were considered. Quantitative outcomes of interest were: psychological outcomes (e.g., anxiety, depression), physical outcomes (e.g., blood pressure, markers of disease status). To be eligible for inclusion, studies had to report at least one psychological or physical outcome.

Data management: The retrieved results were exported into endnote and then the Rayyan platform. The screening process and data extraction were performed by two independent reviewers. Any disagreement in screening or data extraction was solved by consensus or third reviewer opinion. Data extraction will be done via a predesigned data extraction form (Excel worksheet) extracting the following data: country, year...

Quality assessment / Risk of bias analysis: The risk of bias will be used by Jadad scale.

Strategy of data synthesis: We will not have any meta-analysis in this systematic review, so we only will perform a qualitative synthesis according to the different levels of extracted data.

Subgroup analysis: None.

Sensitivity analysis: None.

Country(ies) involved: Iran.

Keywords: Online mindfulness, Heart disease patients.

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