INPLASY PROTOCOL

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Corresponding author:
Federica Pallavicini

federica.pallavicini@unimib.it

Author Affiliation:
Università degli Studi di Milano-Bicocca.

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Conflicts of interest:
None declared.

The Effects of Playing Video Games on Mental Health During the COVID-19 Pandemic: PRISMA Systematic Review

Pallavicini, F[1]; Pepe, A[2]; Mantovani, F[3].

Review question / Objective: **This systematic review aimed to describe the literature on the effects of video games during the COVID-19 crisis on mental health, examining the study characteristics and outcomes.**
Condition being studied: **The World Health Organization (WHO) stress that mental health is "more than just the absence of mental disorders or disabilities. It is a state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively, and is able to make a contribution to his or her community.**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 13 August 2021 and was last updated on 24 August 2021 (registration number INPLASY202180053).

INTRODUCTION

Review question / Objective: **This systematic review aimed to describe the literature on the effects of video games during the COVID-19 crisis on mental health, examining the study characteristics and outcomes.**

Rationale: **During the COVID-19 pandemic playing video games has been much more than just a pastime. Studies suggested that video games for many individuals have been represented an instrument for supporting their mental health. However, other research indicate that video games**

may have had harmful effects. Therefore, scholarly debate persists on the beneficial versus detrimental consequences on mental health of playing video games during the OCIVD-19 crisis.

Condition being studied: The World Health Organization (WHO) stress that mental health is "more than just the absence of mental disorders or disabilities. It is a state of well-being in which an individual realizes his or her own abilities, can cope with the normal stresses of life, can work productively, and is able to make a contribution to his or her community." Physical health is defined as a dynamic state, the process of preserving and developing its biological, physiological, and optimal work capacity and social activity with the maximum life expectancy.

METHODS

Search strategy: The search string will be: [("video game*") OR ("computer game*") OR ("gaming")] AND [("COVID-19")].

Participant or population: All human participants (clinical and non-clinical population).

Intervention: Video games, or none.

Comparator: Usual care intervention, non-video game group, or none.

Study designs to be included: Quantitative (i.e., randomized controlled trial, quasi-experimental, or cross-sectional correlational design), or mixed-methods studies.

Eligibility criteria: Only studies meeting the following criteria will be considered eligible for inclusion: (1) human participants (clinical and non-clinical populations); (2) the outcome measures were the effects of video games on mental health during the COVID-19 pandemic; (3) the study design was a randomized controlled trial (RCT) (i.e., a study design that randomly assigns participants into an experimental group or a control group), quasi-experimental (i.e., non-equivalent groups, pretest-posttest, and interrupted time series), cross-sectional/correlational (i.e., employing questionnaires and large samples), or mixed-methods (i.e., combines qualitative and quantitative methods). Papers published in English in peer-reviewed journals will be selected and subjected to the inclusion criteria as outlined above. Studies published after December 2019 will be selected. Studies will be excluded if they: (1) did not focus on the effects of video games on mental health during the COVID-19 pandemic; (2) did not include specific outcome measures on mental health; (3) were letters to editors, commentaries, preprint papers or studies describing protocols.

Information sources: Databases used in the search will be PsycINFO, Web of Science, and Medline. Additional articles will be identified via hand-searching and reviewing the reference lists of relevant papers.

Main outcome(s): The selected papers will be divided into five domain-specific categories related to mental health emerged from the review, specifically: (1) stress; (2) anxiety; (3) depression; (4) gaming addiction; and (5) loneliness.

Quality assessment / Risk of bias analysis: The Mixed Methods Appraisal Tool (MMAT) will be used to assess the methodological quality of studies included in this systematic review. It has high reliability and efficiency as a quality assessment protocol and can concomitantly appraise methodological quality across various empirical research. Two of the authors independently will assess study quality.

Strategy of data synthesis: Papers meeting inclusion criteria will be identified through database searches. Papers published in languages other than English, and duplicate instances of papers will be removed. Remaining papers will be assessed using the inclusion and exclusion criteria outlined above. Initially, abstracts will be searched to assess a paper's eligibility for inclusion. If abstract information alone will not be sufficient to determine whether a paper met the criteria,

the entire paper will be studied. The following data will be extracted: 1) the populations included in the study (sample size, gender; mean age or age range; nationality); (2) the study design used (i.e., RCT, quasi-experimental, cross-sectional/ correlational, mixed-methods study); (3) the measures used for the assessment of outcomes (e.g., self-report questionnaires); (4) the study outcomes (i.e., stress, anxiety, depression, gaming addiction, and loneliness).

Subgroup analysis: None.

Sensitivity analysis: None.

Language: English.

Country(ies) involved: Italy.

Keywords: video games; COVID-19 pandemic; mental health; anxiety; depression; gaming addiction.

Contributions of each author:

Author 1 - Federica Pallavicini.
Email: federica.pallavicini@unimib.it
Author 2 - Alessandro Pepe.
Email: alessandro.pepe1@unimib.it
Author 3 - Fabrizia Mantovani.
Email: fabrizia.mantovani@unimib.it