INPLASY PROTOCOL

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Conflicts of interest:
None declared.

A Meta-Analysis of the Prevalence of Internet Gaming Disorders with Different Addiction Diagnostic Criteria

Zhou, RY[1]; Zhu, CM[2]; Morita, N[3]; Ogawa, M[4].

Review question / Objective: **Subjects who were diagnosed with gaming Internet gaming disorder (IGD) to any valid clinical diagnostic criteria or scale will be included. There is no restriction on age, sex, race, or region of the enrolled participants.**
Study designs to be included: **The selection criteria for the literature were as follows: (1) Cross-sectional survey studies published in peerreviewedjournals, (2) surveys of the general population, (3) studies with clearly reported baseline data orlongitudinal studies, (4) studies using reliable measures, (5) articles providing prevalence data, (6) studiesfrom 2000 (6) Studies conducted in 2000 or later, (7) Studies with a sample size of more than 300, (8)Studies in English, Chinese, or Korean, (9) Studies with a sample size of more than 300 (8) Articlespublished in English, Chinese, or Japanese.**

INPLASY registration number: This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 17 September 2022 and was last updated on 17 September 2022 (registration number INPLASY202290076).

INTRODUCTION

Review question / Objective: **Subjects who were diagnosed with gaming Internet gaming disorder (IGD) to any valid clinical diagnostic criteria or scale will be included. There is no restriction on age, sex, race, or region of the enrolled participants.**

Condition being studied: **Internet addiction, public mental health.**

METHODS

Search strategy: **Internet (digital OR screen OR cyber* OR net OR online OR media OR computer OR mobile OR phone OR smartphoneOR TV OR video OR game**

OR gaming), problematic use (addict* OR dependen* OR overuse OR disorder OR excessive OR effects OR misuse OR pathological OR problem* OR compulsive), and prevalence (prevalence OR survey OR rate OR scale OR situation OR epidemic OR epidemiological OR occurrence).

Participant or population: Subjects whose participants were diagnosed with Internet gaming disorder using scales developed usingDSM-5 criteria or clinical diagnostic criteria from the ICD-11 will be included in the study. There are norestrictions on the age, gender, race or region of enrollees.

Intervention: None.

Comparator: Not applicable.

Study designs to be included: The selection criteria for the literature were as follows: (1) Cross-sectional survey studies published in peerreviewedjournals, (2) surveys of the general population, (3) studies with clearly reported baseline data orlongitudinal studies, (4) studies using reliable measures, (5) articles providing prevalence data, (6) studiesfrom 2000 (6) Studies conducted in 2000 or later, (7) Studies with a sample size of more than 300, (8)Studies in English, Chinese, or Korean, (9) Studies with a sample size of more than 300 (8) Articlespublished in English, Chinese, or Japanese.

Eligibility criteria: We excluded studies with specific samples, reviews, conference abstracts, and articles published before2000 and lacking data, and selected studies with large sample sizes and large subject groups wheneverpossible. We contacted the authors and requested missing or additional data. Two researchers (Zhou andZhu) independently reviewed each included study.

Information sources: PubMed,Web of Science,Google Scholar,J-stage, Cinii, CNKI, Wanfang.

Main outcome(s): The prevalence of online game addiction.

Additional outcome(s): None.

Data management: Prevalence estimates for this study were calculated by dividing the number of people screened for dependence' using a reliability-validated gaming scale by the number of valid respondents.

Quality assessment / Risk of bias analysis: The quality of each study was assessed by a modified version of the Newcastle-Ottawa Scale (NOS) (Stang,2010) in five aspects: sample representativeness, sample size, response rate, identification of gaming dependence and descriptive data reporting, and studies with high quality risk (NOS score 3) were excluded.

Strategy of data synthesis: Data will be analysed using stata 17.0 software. When measurements were dichotomous, 95% confidence interval risk ratios (RR) were used. I^2 was calculated to assess heterogeneity across studies. i²25% was considered homogeneous; 25%?$I^2$50% was considered low heterogeneity; 50%?$I^2$75% was considered moderate heterogeneity; and I^2?75% was considered substantial heterogeneity. If the data were homogeneous or low heterogeneous, a fixed effects model was used for analysis; if the data showed moderate or substantial heterogeneity, a random effects model was used.

Subgroup analysis: We will conduct subgroup analyses of the presence rates calculated by different diagnostic criteria (DSM-5 and ICD-11), different countries and regions (three in East Asia as well as others), sample size, and pre- and post-COVID-19 pandemic.

Sensitivity analysis: If necessary,I will perform sensitivity analysis using standards.

Language restriction: English.

Country(ies) involved: Japan.

Keywords: prevalence; gaming disorder; diagnostic.

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