INPLASY

Relationship between Ostracism and Digital Addiction: A Systematic Review and Meta Analysis

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ADMINISTRATIVE INFORMATION

INTRODUCTION

Review question / Objective Is there a relationship between social exclusion (ostracism) and digital addiction in the general population? What are the potential mediating and moderating factors underlying the relationship between social exclusion (ostracism) and digital addiction?

Rationale Humans are social beings and need social relations to survive. Sadly, not all social encounters are interactive and responsive as expected. There are situations in the physical and online environment where the individual feels ignored, overlooked, and neglected by other individuals and groups, which is commonly termed ostracism. Ostracism that occurs in the physical space is called in-person ostracism or social ostracism. Ostracism that occurs in cyber space is called virtual ostracism or online ostracism.

The current digital age is witnessing an increased use of the internet, social media, and technological gadgets in daily activities which also brings with it problematic internet behaviours. Digital addiction, a form of behavioural addiction denotes an obsessive and excessive use of digital devices, digital technologies, and digital platforms. Consequently, this leads to negative effects on the physical and psychological health of the individual. One of the negative emotional experiences is to feel ostracised.

The question arises as to whether the ostracised individuals seek solace in the virtual world and thereby become digitally addicted, or whether being addicted acts as a determinant of ostracism. Based on the available evidence, the primary aim is to systematically review studies examining the relationship between ostracism (exclusion) and the different forms of digital addiction, and to quantify the strength and direction of this relationship through meta-analysis. The secondary aim is to explore potential mediators and moderators of this relationship. An understanding of the relationship between ostracism and digital addiction will be of great significance to the Cyberpsychology literature.

Condition being studied As digital addiction is an umbrella term that covers multiple types of digital technologies, the definition operationalized in the context of this review will include digital device addictions (computer, smartphone, digital gadgets), digital platform addictions (social media platforms), and digital medium addictions (internet, video games).

Ostracism is the experience of being ignored, overlooked, and neglected in face-to-face or online interactions.

METHODS

Search strategy A systematic search of the literature will follow the Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) guidelines in databases: PubMed, SCOPUS, PsycINFO, and ProQuest. A preliminary limited search will be conducted followed by a comprehensive search strategy using Boolean operators OR/AND. Key search terms will include: "digital addiction" OR "digital media addiction" OR "internet addiction" OR "virtual addiction" OR "technology addiction" OR "gadget addiction" OR "social media addiction" OR "social media disorder" OR "facebook addiction" OR "instagram addiction" OR "smartphone addiction" OR "mobile phone addiction" OR "selfie addiction" OR "gaming addiction" OR "gaming disorder" OR "problematic use" AND "ostracism" OR "exclusion" OR "rejection" OR "virtual exclusion" OR "online exclusion".

Participant or population Subjects from the general population including children, adolescents, adults, and special groups.

Intervention Not applicable.

Comparator Not applicable.

Study designs to be included Studies must be empirical research that includes quantitative nonrandomized (e.g., non-RCTs, case-control study), quantitative descriptive (e.g., cross-sectional study, longitudinal study), or mixed methods (i.e., combines qualitative and quantitative methods).

Eligibility criteria Inclusion criteria: (i) articles published in English and non-English language from inception until 30 June 2024 (ii) apart from journal papers, conference full texts and dissertations will be included (iii) no additional age limits on population studied (iv) studies that measure both ostracism and one of the forms of digital addiction using a validated scale (v)

Product-moment correlation coefficient (r) reported. Exclusion criteria: Pure theoretical, review articles, conference abstracts, book chapters or republished works will be excluded.

Information sources Electronic searches will be conducted on PubMed, SCOPUS, PsycINFO, and ProQuest. Articles will also be searched on grey literature internet sources like Google Scholar and Semantic Scholar. Furthermore, the reference list of the screened articles will be reviewed to find extra relevant studies.

Main outcome(s) There is a certain degree of positive correlation between ostracism and internet addiction.

Additional outcome(s) There is a certain degree of correlation between ostracism and other forms of digital addiction studied and reported.

Data management All retrieved records from the searches from each database will be collected, de-duplicated, and managed using the Mendeley reference manager prior to screening. The title and abstract will be screened to remove studies not related to the topic. The full text of eligible studies will be screened in accordance with the inclusion and exclusion criteria.

Pre-designed forms will be created to extract data from related studies which will be piloted first on five papers. A unique identification number will be assigned to each study. Following information will be collected: author's information, publication year, data collection period, country of the study, gender composition, study objective, study design, study population, sampling method, sample size, mean age, age range, outcome variables, study tool, mean score, correlation coefficient, mediating variable (if any), moderating variable (if any), and the overall result.

Two independent reviewers (IS and MBAS) will search for the studies, do a quality assessment, and extract the data. Any controversy will be resolved in discussion with the fourth author (KK). The percentage agreement rate between raters will be reported. The third author (SC) will help with data analysis.

Quality assessment / Risk of bias analysis The Newcastle-Ottawa Scale will be used to assess the methodological quality of the included studies based on three categories (selection, comparability, and outcome). Studies with more than five points will be considered to have a low risk of bias, studies with less than five points will be considered to have a medium risk of bias, and

studies with less than three points will be considered to have a high risk of bias.

Strategy of data synthesis The 'metacor' package in R software version 4.3.3 will be used to perform statistical analyses on all data. The meta-correlation, also known as meta-analysis of correlation coefficient (r) is a statistical method to analyze the relationship between two continuous variables over numerous studies. A random effect model will be chosen to combine the correlation coefficients. Statistical significance will be set at p-value <0.05. The heterogeneity will be assessed using the Q test, and I-squared (I2) statistics. Publication bias will be evaluated using the Egger's test, the trim-and-fill method, and the funnel plot asymmetry test. The analyzed values and approximated value of the Fisher r-to-z transformed correlation coefficient for the individual studies and for the model respectively will be reported with 95% confidence intervals.

Subgroup analysis If there is heterogeneity, a subgroup analysis will be conducted according to the characteristics of the participants such as age group, study location, and gender.

Sensitivity analysis If applicable, sensitivity analysis will be conducted using the leave-one-out method.

Language restriction There will be no language restriction.

Country(ies) involved India.

Keywords Systematic review, Meta-analysis, Ostracism, Exclusion, Rejection, Digital Addiction, Internet Addiction, Smartphone addiction, Social Media Addiction.

Dissemination plans The findings of this study will be published in a peer-reviewed journal.

Contributions of each author
Author 1 - Irene Sambath - conceptualisation, literature retrieval, search databases, screen articles, quality assessment, draft manuscript.
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