



Master Research Library

Audited source-reconciled master - Version 0.2.0

MASTER RECORDS	394
DOI LINKS SUPPLIED	361
DOI MISSING / INCOMPLETE	33
COVERAGE	1976 - Aug 31st, 2026

Prepared from 4 uploaded VGTX literature compilations and the July 2024 to August 2026 search.

Records with missing or incomplete DOI information remain in the library for later Zotero verification.

Generated September 7, 2026

How to use this working master

This document consolidates 394 relevance-screened scholarly records identified across 4 uploaded VGTx literature compilations, the July 2024 to July 2026 search, and subsequent researcher-verified additions. Records are alphabetized by the first author and mapped through PICOS: Population, Intervention or exposure, Comparator, Outcomes, and Study design. For reviews, theoretical works, qualitative studies, books, and observational research, PICOS is adapted to the study structure rather than forced into a clinical-trial format.

Suggested use and attribution

Please cite the original scholarly sources when using research identified through this library. When drawing on the VGTx library's organization, annotations, PICOS summaries, or compiled record set, please acknowledge the VGTx Research Initiative and identify the version consulted.

Suggested citation:

VGTx Research Initiative. (2026). *VGTx master research library* (Version 1.2.3) [Living annotated bibliography]. Retrieved [Month Day, Year] from [W VGTx_Master_Research_Library_v1.2.3.docx](#)

Retention and verification rules

- No record was excluded solely because its DOI was missing, incomplete, or nonstandard.
- A record is included when video games or digital games are central and the source directly addresses a psychological, clinical, counseling, therapeutic, mental-health, emotional, cognitive, neuropsychological, behavioral, or closely related social-psychological construct.
- A clickable DOI or stable link is presented when one was supplied or corrected during the source audit. The link remains a verification field for Zotero entry.
- Missing methods information is marked as not reported, not applicable, provisional, or pending full-text confirmation.
- Source provenance and a metadata/PICOS confidence note are included under every record so the entry can be traced and checked.

Source documents

- Master Annotated Literature List for 8-Bit Science(1).pdf
- Quantitative Evidence Linking Video Games to Mood and Emotions(2).pdf
- VGTx research.pdf
- Current Library Search.pdf

Alphabetical navigation

[A](#) | [B](#) | [C](#) | [D](#) | [E](#) | [F](#) | [G](#) | [H](#) | [I](#) | [J](#) | [K](#) | [L](#) | [M](#) | [N](#) | [O](#) | [P](#) | [Q](#) | [R](#) | [S](#) | [T](#) | [U](#) | [V](#) | [W](#) | [X](#) | [Y](#) | [Z](#)

Status note: Prepared from four uploaded VGTx literature compilations, the July 2024 to August 2026 search, and subsequent researcher-verified additions. Records have undergone relevance, duplication, citation, metadata, and PICOS review. Records with missing or incomplete DOI information remain in the library for later Zotero verification. This is a living working research library and will continue to receive scheduled updates and metadata correction.

Update 1.2.1: Following an initial validity review by Dr. Sarini and V. Alexeev-Zajac, eight out-of-scope sources were removed. V. Alexeev-Zajac then completed a broader relevance audit, resulting in the removal of 38 additional out-of-scope sources. Five verified records were added, and one provisional record was replaced with a fully verified entry containing corrected metadata and a revised PICOS extraction. Updated July 22, 2026.

Update 1.2.2: Following an additional relevance, duplication, and metadata audit, 17 out-of-scope or duplicate records were removed, 26 verified records were added or restored, and selected existing records were corrected or replaced with fuller verified entries. Front-page statistics were recalculated to reflect the verified contents of the library. Updated July 23, 2026.

Update 1.2.3: Twenty records identified by Dr. Sarini were reviewed; 18 were verified and updated, and two were excluded. Seven historical records and three newly published 2026 records were added. Updated July 26, 2026.

Update 2.0: Following a strict scope, duplication, citation, metadata, and PICOS review, 59 verified records were added to the master library. Candidate records were required to center video games or digital games and directly address psychological, clinical, counseling, therapeutic, mental-health, emotional, cognitive, neuropsychological, behavioral, or closely related social-psychological constructs. Duplicate records already present in the master were excluded, and one additional screened candidate was excluded as out of scope. The library now contains 394 records, including 361 records with DOI links and 33 with missing or incomplete DOI information. The library provenance was also updated to reflect preparation from four master source documents. Updated September 7, 2026.

Update 2.1:

A | Alphabetical records

Abd-alrazaq, A., Alajlani, M., Alhuwail, D., Schneider, J., Akhu-Zaheya, L., Ahmed, A., & Househ, M. (2022) The Effectiveness of Serious Games in Alleviating Anxiety: Systematic Review and Meta-analysis	
Citation: Abd-alrazaq, A., Alajlani, M., Alhuwail, D., Schneider, J., Akhu-Zaheya, L., Ahmed, A., & Househ, M. (2022). The Effectiveness of Serious Games in Alleviating Anxiety: Systematic Review and Meta-analysis. JMIR Serious Games, 10(1), e29137.	
DOI / link	https://doi.org/10.2196/29137 Tags: therapeutic/serious games, mood/emotion
P - Population	Studies and participant populations included in the review
I - Intervention / exposure	The Effectiveness of Serious Games in Alleviating Anxiety: Systematic Review and Meta-analysis
C - Comparator	Varied comparators across included studies
O - Outcomes	Mood/emotion regulation
S - Study design	Systematic review and meta-analysis
Source: VGTX research.pdf, p. 126 (source citation); source extraction p. 126 Metadata status: Source citation checked; DOI source-matched PICOS confidence: Moderate - provisional PICOS; confirm against full text	
Abraham, O., Al Tawari, A., Cerniglia, L., Di Lauro, F., Arafat, S. Y., & Maglio, M. (2021) Investigating the Use of a Serious Game to Improve Opioid Safety Awareness Among Adolescents: Quantitative Study	
Citation: Abraham, O., Al Tawari, A., Cerniglia, L., Di Lauro, F., Arafat, S. Y., & Maglio, M. (2021). Investigating the Use of a Serious Game to Improve Opioid Safety Awareness Among Adolescents: Quantitative Study. JMIR Serious Games, 9(4), e33975.	
DOI / link	https://doi.org/10.2196/33975 Tags: therapeutic/serious games
P - Population	Adolescents
I - Intervention / exposure	Investigating the Use of a Serious Game to Improve Opioid Safety Awareness Among Adolescents: Quantitative Study
C - Comparator	Not reported or not applicable
O - Outcomes	Outcome domain NR in source summary
S - Study design	Study design not fully reported in source summary
Source: VGTX research.pdf, p. 125 (source citation); source extraction p. 125 Metadata status: Source citation checked; DOI source-matched PICOS confidence: Moderate - provisional PICOS; confirm against full text	
Abroms, L. C., Fishman, M., Vo, H., Chiang, S., Somerville, V., & Rakhmanov, L. (2019) A motion-activated video game for prevention of substance use disorder relapse in youth: A pilot RCT	
Citation: Abroms, L. C., Fishman, M., Vo, H., Chiang, S., Somerville, V., & Rakhmanov, L. (2019). A motion-activated video game for prevention of substance use disorder relapse in youth: A pilot RCT. JMIR Serious Games, 7(2), e11716.	

Abroms, L. C., Fishman, M., Vo, H., Chiang, S., Somerville, V., & Rakhmanov, L. (2019)**A motion-activated video game for prevention of substance use disorder relapse in youth: A pilot RCT**

DOI / link	https://doi.org/10.2196/11716 Tags: therapeutic/serious games
P - Population	Children and/or adolescents
I - Intervention / exposure	A motion-activated video game for prevention of substance use disorder relapse in youth: A pilot RCT
C - Comparator	Control/comparison condition NR in source summary
O - Outcomes	Clinical symptoms/functioning
S - Study design	Randomized controlled trial
Source: VGTX research.pdf, p. 117 (source citation); source extraction p. 117 Metadata status: Source citation checked; DOI source-matched PICOS confidence: Moderate - provisional PICOS; confirm against full text	

Adachi, P. J. C.; Willoughby, T. (2013)**The effect of video game experience on the development of creativity**

Citation: Adachi, P. J. C.; Willoughby, T. (2013). The effect of video game experience on the development of creativity. Computers in Human Behavior, 29, 588-595.

DOI / link	https://doi.org/10.1016/j.chb.2012.10.020 Tags: cognition/executive function
P - Population	Not reported in source summary
I - Intervention / exposure	The effect of video game experience on the development of creativity
C - Comparator	Not reported or not applicable
O - Outcomes	Cognition/executive function
S - Study design	Study design not fully reported in source summary
Source: VGTX research.pdf, p. 127 Metadata status: Source citation captured; DOI resolution not independently confirmed unless noted PICOS confidence: Provisional	

Adriaenssens, P., Eggermont, E., & Pyck, K. (1988)**The video invasion of rehabilitation**

Citation: Adriaenssens, P., Eggermont, E., & Pyck, K. (1988). The video invasion of rehabilitation. Burns, 14(6), 417-419. ScienceDirect.

DOI / link	https://doi.org/10.1016/0305-4179(88)90015-0 Tags: rehabilitation
P - Population	Not reported in source summary
I - Intervention / exposure	Game-related exposure/intervention described in the article
C - Comparator	Not reported or not applicable
O - Outcomes	Outcome domain NR in source summary
S - Study design	Study design not fully reported in source summary
Source: VGTX research.pdf, p. 137 (source citation); source extraction p. 137 Metadata status: Source citation checked; DOI source-matched PICOS confidence: Moderate - provisional PICOS; confirm against full text	

Ahmead, M., Abu Lail, S., & Sarhan, A. (2026)**The association between internet gaming disorder, depression, and anxiety among Palestinian university students who play internet games in a conflict-affected region**

Citation: Ahmead, M., Abu Lail, S., & Sarhan, A. (2026). The association between internet gaming disorder, depression, and anxiety among Palestinian university students who play internet games in a conflict-affected region. Frontiers in Psychiatry, 17, 1819488.

DOI / link	https://doi.org/10.3389/fpsy.2026.1819488 Tags: gaming disorder, depression/anxiety, loneliness, suicidality, university students
P - Population	1,228 university students aged 18–30 from 14 public universities in the West Bank who reported playing internet games.

I - Intervention / exposure	Internet Gaming Disorder risk/symptoms and daily internet-gaming duration measured by self-report.
C - Comparator	Participants with versus without IGD risk, with additional comparisons across gaming-duration and mental-health profiles.
O - Outcomes	Depression, anxiety, suicidal ideation, loneliness, and their associations with Internet Gaming Disorder.
S - Study design	Cross-sectional online survey using convenience sampling, chi-square analyses, and multivariable logistic regression.
Source: Publisher full text (Frontiers in Psychiatry) and PubMed citation metadata. Metadata status: Citation, DOI, volume, article number, sample, measures, and study design verified against publisher full text PICOS confidence: High - PICOS confirmed against full text	

Al Husni Al Keilani, M., & Delvenne, V. (2020)

Use of Video Games in a Child and Adolescent Psychiatric Unit

Citation: Al Husni Al Keilani, M., & Delvenne, V. (2020). Use of Video Games in a Child and Adolescent Psychiatric Unit. *Psychiatria Danubina*, 32(Suppl 1), 167–171. <https://pubmed.ncbi.nlm.nih.gov/32890384/>

DOI / link	https://pubmed.ncbi.nlm.nih.gov/32890384/ Tags: therapeutic/clinical
P - Population	Children and adolescents in an inpatient psychiatric unit
I - Intervention / exposure	Use of video games in the psychiatric-unit setting
C - Comparator	N/A
O - Outcomes	Clinical experience, engagement, and perceived effectiveness
S - Study design	Clinical experience/review report

Source: VGTX research p148-148

Metadata status: Web verified – PubMed; no DOI located; Source was misattributed to Jander. Direct psychiatric-unit gaming record; retain without DOI. | **PICOS confidence:** High for bibliographic metadata; full clinical details pending full text

Alnajashi, S. A. (2026)

Differential contributions of working memory and inhibitory control to prospective memory detection and retrieval

Citation: Alnajashi, S. A. (2026). Differential contributions of working memory and inhibitory control to prospective memory detection and retrieval. *Frontiers in Psychology*, 17, 1871302.

DOI / link	https://doi.org/10.3389/fpsyg.2026.1871302 Tags: action gaming, cognition, prospective memory, working memory, executive function
P - Population	84 adults; 44 action videogame players and 40 nonplayers
I - Intervention / exposure	Action-videogame experience
C - Comparator	Action gamers versus nonplayers
O - Outcomes	Prospective memory, working memory, inhibition, reasoning
S - Study design	Comparative cross-sectional cognitive study

Source: Frontiers in Psychology

Metadata status: Verified | **PICOS confidence:** High

Allen, D. H. (1984)

The use of computer fantasy games in child therapy

Citation: Allen, D. H. (1984). The use of computer fantasy games in child therapy. In M. D. Schwartz (Ed.), *Using computers in clinical practice: Psychotherapy and mental health applications* (pp. 329-334). Haworth Press.

DOI / link	Missing or incomplete - retained for manual Zotero follow-up Tags: therapy/counseling
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Allen, D. H. (1984)**The use of computer fantasy games in child therapy**

P - Population	Not reported in source summary
I - Intervention / exposure	The use of computer fantasy games in child therapy
C - Comparator	Not reported or not applicable
O - Outcomes	Psychological, behavioral, cognitive, or clinical outcomes reported in the article
S - Study design	Study design not fully reported in source summary

Source: VGTX research.pdf, p. 113

Metadata status: Externally verified where stated; otherwise source citation retained for later Zotero confirmation | PICOS confidence: Provisional

Amendola, et al. (2025)**Bidirectional relationship between gaming disorder, internalizing psychopathology, psychological distress, and well-being: A systematic review and meta-analysis Journal of Affective Disorders.**

Citation: Amendola, et al. (2025). Bidirectional relationship between gaming disorder, internalizing psychopathology, psychological distress, and well-being: A systematic review and meta-analysis Journal of Affective Disorders.

DOI / link	https://doi.org/10.1016/j.jad.2025.04.108 Tags: mood/emotion, gaming disorder, social/identity
P - Population	Longitudinal gaming-disorder studies
I - Intervention / exposure	Gaming-disorder symptoms or internalizing/psychological distress exposures
C - Comparator	Lower symptom/exposure levels over time
O - Outcomes	Gaming disorder, internalizing psychopathology, distress, and well-being
S - Study design	Systematic review and meta-analysis of longitudinal studies

Source: vgtx, p. 264

Metadata status: PubMed/publisher record verified online | PICOS confidence: Moderate to high - based on source summary and verified citation metadata

Anderson, C. A., & Ford, C. M. (1986)**Affect of the game player: Short-term effects of highly and mildly aggressive video games**

Citation: Anderson, C. A., & Ford, C. M. (1986). Affect of the game player: Short-term effects of highly and mildly aggressive video games. Personality and Social Psychology Bulletin, 12(4), 390-402.

DOI / link	https://doi.org/10.1177/0146167286124002 Tags: mood/emotion, social/identity
P - Population	Not reported in source summary
I - Intervention / exposure	Affect of the game player: Short-term effects of highly and mildly aggressive video games
C - Comparator	Not reported or not applicable
O - Outcomes	Mood/emotion regulation, Social/identity
S - Study design	Study design not fully reported in source summary

Source: VGTX research.pdf, p. 208 (source citation); source extraction p. 208

Metadata status: Source citation checked; DOI source-matched | PICOS confidence: Moderate - provisional PICOS; confirm against full text

Anderson, C. A., & Dill, K. E. (2000)**Video games and aggressive thoughts, feelings, and behavior in the laboratory and in life**

Citation: Anderson, C. A., & Dill, K. E. (2000). Video games and aggressive thoughts, feelings, and behavior in the laboratory and in life. Journal of Personality and Social Psychology, 78(4), 772-790.

DOI / link	https://doi.org/10.1037/0022-3514.78.4.772 Tags: mood/emotion, social/identity
P - Population	Not reported in source summary

Anderson, C. A., & Dill, K. E. (2000)**Video games and aggressive thoughts, feelings, and behavior in the laboratory and in life**

I - Intervention / exposure	Video games and aggressive thoughts, feelings, and behavior in the laboratory and in life
C - Comparator	Not reported or not applicable
O - Outcomes	Mood/emotion regulation, Behavior/engagement, Social/identity
S - Study design	Study design not fully reported in source summary

Source: VGTx research.pdf, p. 208 (source citation); source extraction p. 208

Metadata status: Source citation checked; DOI source-matched | PICOS confidence: Moderate - provisional PICOS; confirm against full text

Anderson, C. A., Shibuya, A., Ihori, N., et al. (2010)**Violent video game effects on aggression, empathy, and prosocial behavior in Eastern and Western countries: A meta-analytic review**

Citation: Anderson, C. A., Shibuya, A., Ihori, N., et al. (2010). Violent video game effects on aggression, empathy, and prosocial behavior in Eastern and Western countries: A meta-analytic review. Psychological Bulletin, 136(2), 151-173.

DOI / link	https://doi.org/10.1037/a0018251 Tags: aggression/prosociality
P - Population	Not reported in source summary
I - Intervention / exposure	Violent video game effects on aggression, empathy, and prosocial behavior in Eastern and Western countries: A meta-analytic review
C - Comparator	Varied comparators across included studies or not applicable
O - Outcomes	Aggression/prosocial behavior
S - Study design	Review/theoretical synthesis

Source: VGTx research.pdf, p. 247

Metadata status: Externally verified where stated; otherwise source citation retained for later Zotero confirmation | PICOS confidence: Provisional

Anderson-Hanley, C., Snyder, A. L., et al. (2012)**Improving older adult cognitive and neural fitness with exergames: A controlled clinical trial**

Citation: Anderson-Hanley, C., Snyder, A. L., et al. (2012). Improving older adult cognitive and neural fitness with exergames: A controlled clinical trial. American Journal of Preventive Medicine, 42(2), 109-119.

DOI / link	https://doi.org/10.1016/j.amepre.2011.10.016 Tags: mood/emotion, cognition/executive function
P - Population	older adults
I - Intervention / exposure	Improving older adult cognitive and neural fitness with exergames: A controlled clinical trial
C - Comparator	controlled clinical trial
O - Outcomes	Mood/emotion regulation, Clinical symptoms/functioning, Cognition/executive function
S - Study design	Randomized controlled trial

Source: VGTx research.pdf, p. 215 (source citation); source extraction p. 215

Metadata status: Source citation checked; DOI source-matched | PICOS confidence: Moderate to high - based on source summary and verified citation metadata

Anguera, J. A., Boccanfuso, J., Rintoul, J. L., et al. (2013)**Video game training enhances cognitive control in older adults**

Citation: Anguera, J. A., Boccanfuso, J., Rintoul, J. L., et al. (2013). Video game training enhances cognitive control in older adults. Nature, 501(7465), 97-101.

DOI / link	https://doi.org/10.1038/nature12486 Tags: cognition/executive function
P - Population	older adults
I - Intervention / exposure	Video game training enhances cognitive control in older adults
C - Comparator	control in older adults
O - Outcomes	Cognition/executive function

Anguera, J. A., Boccanfuso, J., Rintoul, J. L., et al. (2013)

Video game training enhances cognitive control in older adults

S - Study design Study design not fully reported in source summary

Source: VGTX research.pdf, p. 116 (source citation); source extraction p. 136

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate to high - based on source summary and verified citation metadata

Argaman, Y., Gur, T., Heller, B., & Maaravi, Y. (2026)

Inclusion and exclusion in gaming communities: A systematic review and future directions to increase inclusivity

Citation: Argaman, Y., Gur, T., Heller, B., & Maaravi, Y. (2026). Inclusion and exclusion in gaming communities: A systematic review and future directions to increase inclusivity. *Frontiers in Psychology*, 17, Article 1796305. <https://doi.org/10.3389/fpsyg.2026.1796305>

DOI / link <https://doi.org/10.3389/fpsyg.2026.1796305>

Tags: social/identity, behavior/engagement, general video-game psychology

P - Population One hundred articles examining inclusion and exclusion in gaming communities, published primarily across the preceding 13 years.

I - Intervention / exposure Gaming-community practices, representations, and institutional structures associated with inclusion or exclusion, along with initiatives intended to increase inclusivity.

C - Comparator Varied groups, platforms, stakeholders, and inclusion conditions across the reviewed literature; no single comparator applied to all studies.

O - Outcomes Patterns and barriers involving marginalization, stereotypes, representation, harassment, community practices, and institutional exclusion; existing initiatives and recommendations for more inclusive gaming cultures.

S - Study design Systematic review of 100 articles with an integrated framework of stakeholder-focused solutions and research directions.

Source: Frontiers full text (review methodology, abstract, and results) and publisher citation metadata.

Metadata status: Citation, DOI, volume, article number, review size, review scope, and central findings verified against the publisher full text | **PICOS confidence:** High - PICOS adapted to the review structure and verified against the full article

Arnold, H. J. (1976)

Effects of performance feedback and extrinsic reward upon high intrinsic motivation

Citation: Arnold, H. J. (1976). Effects of performance feedback and extrinsic reward upon high intrinsic motivation. *Organizational Behavior and Human Performance*, 17(2), 275–288.

DOI / link [https://doi.org/10.1016/0030-5073\(76\)90067-2](https://doi.org/10.1016/0030-5073(76)90067-2)

Tags: motivation/player experience, general video-game psychology, measurement/methods

P - Population Undergraduates recruited voluntarily to play a complex computer game.

I - Intervention / exposure Complex computer-game play with manipulated performance feedback and extrinsic reward; some participants received \$2.00 for playing.

C - Comparator Paid versus unpaid conditions and differing video game task-performance feedback conditions.

O - Outcomes Intrinsic motivation, perceived competence, satisfaction, enjoyment, task performance, volunteering to return, and actual return behavior.

S - Study design Experimental study examining reward and performance-feedback effects on intrinsic motivation.

Source: Publisher abstract (ScienceDirect) and publisher citation metadata.

Metadata status: Citation, DOI, volume, issue, and pages verified against the publisher record | **PICOS confidence:** Moderate to high - core PICOS confirmed from the publisher abstract; sample size and allocation details pending full text

Aventín, Á., Houston, S., & Macdonald, G. (2014)

Utilising a computer game as a therapeutic intervention for youth in residential care: Preliminary findings on use and acceptability

Citation: Aventín, Á., Houston, S., & Macdonald, G. (2014). Utilising a computer game as a therapeutic intervention for youth in residential care: Preliminary findings on use and acceptability. *Children and Youth Services Review*, 47, 362-369.

DOI / link <https://doi.org/10.1016/j.childyouth.2014.10.012>

Tags: therapy/counseling

P - Population Children

Aventin, Á., Houston, S., & Macdonald, G. (2014)**Utilising a computer game as a therapeutic intervention for youth in residential care: Preliminary findings on use and acceptability**

I - Intervention / exposure	Utilising a computer game as a therapeutic intervention for youth in residential care: Preliminary findings on use and acceptability
C - Comparator	Varied comparators across included studies
O - Outcomes	Clinical symptoms/functioning, Behavior/engagement
S - Study design	Review

Source: VGTX research.pdf, p. 117 (source citation); source extraction p. 117

Metadata status: Source citation checked; DOI source-matched | PICOS confidence: Moderate to high - based on source summary and verified citation metadata

B | Alphabetical records

Backlund, et al. (2025)**Coping, escapism, and fantasy motives and depression symptoms mediate the relationship between emotion dysregulation and gaming disorder Addictive Behaviors Reports, 22, 100663.**

Citation: Backlund, et al. (2025). Coping, escapism, and fantasy motives and depression symptoms mediate the relationship between emotion dysregulation and gaming disorder Addictive Behaviors Reports, 22, 100663.

DOI / link	https://doi.org/10.1016/j.abrep.2025.100663 Tags: mood/emotion, gaming disorder, social/identity
P - Population	Video-game players
I - Intervention / exposure	Emotion dysregulation and gaming motives as exposures
C - Comparator	Differences across exposure levels
O - Outcomes	Gaming-disorder symptoms, coping/escapism/fantasy motives, and depression
S - Study design	Observational mediation study

Source: vgtx, p. 264

Metadata status: PubMed/publisher record verified online | PICOS confidence: Moderate to high - based on source summary and verified citation metadata

Ball, H. G. (1978)**Telegames teach more than you think**

Citation: Ball, H. G. (1978). Telegames teach more than you think. Audiovisual Instruction, 23(5), 24-26.

DOI / link	Missing or incomplete - retained for manual Zotero follow-up Tags: general video game psychology
P - Population	Not reported in source summary
I - Intervention / exposure	Telegames teach more than you think
C - Comparator	Not reported or not applicable
O - Outcomes	Psychological, behavioral, cognitive, or clinical outcomes reported in the article
S - Study design	Study design not fully reported in source summary

Source: User-confirmed historical record; ERIC record EJ179484

Metadata status: Externally verified where stated; otherwise source citation retained for later Zotero confirmation | PICOS confidence: Provisional

Ballard, M. E., & Wiest, J. R. (1996)**Mortal Kombat™: The effects of violent videogame play on males' hostility and cardiovascular responding**

Citation: Ballard, M. E., & Wiest, J. R. (1996). Mortal Kombat™: The effects of violent videogame play on males' hostility and cardiovascular responding. Journal of Applied Social Psychology, 26(8), 717-730.

DOI / link	https://doi.org/10.1111/j.1559-1816.1996.tb02740.x Tags: social/identity
P - Population	Not reported in source summary

Ballard, M. E., & Wiest, J. R. (1996)**Mortal Kombat™: The effects of violent videogame play on males' hostility and cardiovascular responding**

I - Intervention / exposure	Mortal Kombat™: The effects of violent videogame play on males' hostility and cardiovascular responding
C - Comparator	Not reported or not applicable
O - Outcomes	Social/identity
S - Study design	Study design not fully reported in source summary

Source: VGTX research.pdf, p. 208 (source citation); source extraction p. 208

Metadata status: Source citation checked; DOI source-matched | PICOS confidence: Moderate - provisional PICOS; confirm against full text

Ballou, N., & Deterding, S. (2023)**"I just wanted to get it over and done with": A grounded theory of psychological need frustration in video games**

Citation: Ballou, N., & Deterding, S. (2023). "I just wanted to get it over and done with": A grounded theory of psychological need frustration in video games. Proceedings of the ACM on Human-Computer Interaction, 7(CHI PLAY), Article 382.

DOI / link	https://doi.org/10.1145/3611028 Tags: general video-game psychology
P - Population	Not reported in source summary
I - Intervention / exposure	"I just wanted to get it over and done with": A grounded theory of psychological need frustration in video games
C - Comparator	N/A
O - Outcomes	Outcome domain NR in source summary
S - Study design	Theory/framework

Source: VGTX research.pdf, p. 203 (source citation); source extraction p. 203

Metadata status: Source citation checked; DOI source-matched | PICOS confidence: Moderate - provisional PICOS; confirm against full text

Baranowski, T., Buday, R., Thompson, D., & Baranowski, J. (2008)**Playing for real: Video games and stories for health-related behavior change**

Citation: Baranowski, T., Buday, R., Thompson, D., & Baranowski, J. (2008). Playing for real: Video games and stories for health-related behavior change. American Journal of Preventive Medicine, 34, 74-82.

DOI / link	https://doi.org/10.1016/j.amepre.2007.09.027 Tags: general video-game psychology
P - Population	Not reported in source summary
I - Intervention / exposure	Playing for real: Video games and stories for health-related behavior change
C - Comparator	Varied comparators across included studies
O - Outcomes	Behavior/engagement
S - Study design	Review

Source: VGTX research.pdf, p. 144 (source citation); source extraction p. 144

Metadata status: Source citation checked; DOI source-matched | PICOS confidence: Moderate - provisional PICOS; confirm against full text

Bartle, R. (1996)**Hearts, clubs, diamonds, spades: Players who suit MUDs Journal of MUD Research, 1(1).**

Citation: Bartle, R. (1996). Hearts, clubs, diamonds, spades: Players who suit MUDs Journal of MUD Research, 1(1).

DOI / link	Missing or incomplete - retained for manual Zotero follow-up Tags: social/identity
P - Population	MUD players
I - Intervention / exposure	Player-type taxonomy based on online game behavior
C - Comparator	N/A
O - Outcomes	Achievement, exploration, socialization, and player-killing orientations
S - Study design	Conceptual taxonomy

Bartle, R. (1996)**Hearts, clubs, diamonds, spades: Players who suit MUDs** *Journal of MUD Research*, 1(1).**Source:** 8bit, p. 5**Metadata status:** Canonical non-DOI web publication; stable URL requires Zotero verification | **PICOS confidence:** N/A - conceptual or guidance record**Baumann, V., Birnbaum, T., Breitling-Ziegler, C., Tegelbeckers, J., Dambacher, J., Edelmann, E., et al. (2020)****Exploration of a novel virtual environment improves memory consolidation in ADHD****Citation:** Baumann, V., Birnbaum, T., Breitling-Ziegler, C., Tegelbeckers, J., Dambacher, J., Edelmann, E., et al. (2020). Exploration of a novel virtual environment improves memory consolidation in ADHD. *Scientific Reports*, 10(1), 21453.

DOI / link	https://doi.org/10.1038/s41598-020-78222-4 Tags: cognition/executive function
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P - Population	People with ADHD
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I - Intervention / exposure	Game-related exposure/intervention described in the article
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C - Comparator	Not reported or not applicable
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O - Outcomes	Cognition/executive function
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S - Study design	Study design not fully reported in source summary
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Source: VGTX research.pdf, p. 113 (source citation); source extraction p. 113**Metadata status:** Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text**Bavelier, D., Green, C. S., Han, D. H., Renshaw, P. F., Merzenich, M. M., & Gentile, D. A. (2011)****Brains on video games****Citation:** Bavelier, D., Green, C. S., Han, D. H., Renshaw, P. F., Merzenich, M. M., & Gentile, D. A. (2011). Brains on video games. *Nature Reviews Neuroscience*, 12, 763-768.

DOI / link	https://doi.org/10.1038/nrn3135 Tags: neuroscience/neuropsychology
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P - Population	Not reported in source summary
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I - Intervention / exposure	Brains on video games
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C - Comparator	Varied comparators across included studies or not applicable
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O - Outcomes	Neural or neuropsychological outcomes
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S - Study design	Review/theoretical synthesis
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Source: VGTX research.pdf, p. 246**Metadata status:** Citation and DOI corrected during source audit | **PICOS confidence:** Provisional**Bavelier, D., Green, C. S., Pouget, A., & Schrater, P. (2012)****Brain plasticity through the life span: Learning to learn and action video games****Citation:** Bavelier, D., Green, C. S., Pouget, A., & Schrater, P. (2012). Brain plasticity through the life span: Learning to learn and action video games. *Annual Review of Neuroscience*, 35, 391-416.

DOI / link	https://doi.org/10.1146/annurev-neuro-060909-152832 Tags: neuroscience/neuropsychology
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P - Population	Not reported in source summary
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I - Intervention / exposure	Brain plasticity through the life span: Learning to learn and action video games
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C - Comparator	Varied comparators across included studies or not applicable
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O - Outcomes	Neural or neuropsychological outcomes
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S - Study design	Review/theoretical synthesis
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Source: VGTX research.pdf, p. 246; citation metadata to confirm**Metadata status:** Externally verified where stated; otherwise source citation retained for later Zotero confirmation | **PICOS confidence:** Provisional

Bean, A. M. (2018)**Working with Video Gamers and Games in Therapy: A Clinician's Guide**

Citation: Bean, A. M. (2018). Working with Video Gamers and Games in Therapy: A Clinician's Guide. Routledge (book).

DOI / link	Missing or incomplete - retained for manual Zotero follow-up Tags: therapy/counseling, clinical application, book
P - Population	N/A (clinical guide / book)
I - Intervention / exposure	Therapeutic work with video gamers and the use of games in therapy
C - Comparator	N/A
O - Outcomes	Clinical guidance for assessment, conceptualization, and intervention
S - Study design	Book / clinical practice guide

Source: Added in v1.2 author-coverage patch after user QA review; outside the prior extracted PDF candidate set

Metadata status: Provisional author-coverage patch added at user request; citation details should be verified against publisher metadata or full text during Zotero entry. Missing DOI retained when not confirmed. | **PICOS confidence:** Provisional - added in author-gap patch; verify bibliographic details during Zotero entry

Bean, A. (2020)**Working therapeutically with video gamers and their families**

Citation: Bean, A. (2020). Working therapeutically with video gamers and their families. Journal of Health Service Psychology, 45(1), 40–46.

DOI / link	https://doi.org/10.1007/BF03544679 Tags: therapy/counseling, social/identity
P - Population	Video-game-playing children and adolescents and their families encountered in psychotherapy.
I - Intervention / exposure	Clinical use of game knowledge, play patterns, avatars, and family gaming dynamics to support assessment and treatment.
C - Comparator	Not applicable.
O - Outcomes	Therapeutic engagement, clinical understanding, communication, alliance, and family-system work.
S - Study design	Clinical practice article and conceptual review.

Source: Researcher-approved source abstract/summary and citation metadata.

Metadata status: Researcher-confirmed citation and DOI | **PICOS confidence:** High - adapted PICOS confirmed from the approved abstract/summary

Bean, A. (2022)**Therapeutic use of video games in the treatment of posttraumatic stress disorder (PTSD): A case study of an immersed 10-year-old boy**

Citation: Bean, A. (2022). Therapeutic use of video games in the treatment of posttraumatic stress disorder (PTSD): A case study of an immersed 10-year-old boy. Journal of Psychology and Psychotherapy Research, 9, 158–169.

DOI / link	https://doi.org/10.12974/2313-1047.2022.09.9 Tags: therapy/counseling, trauma/PTSD, mood/emotion
P - Population	One 10-year-old boy with PTSD and his family.
I - Intervention / exposure	Psychotherapy incorporating the child's immersive video-game play and archetypal interpretation of game experiences.
C - Comparator	No comparator.
O - Outcomes	PTSD-related functioning, emotional communication, self-understanding, and reported changes across home and school contexts.
S - Study design	Single-case clinical case study.

Source: Researcher-approved source abstract/summary and citation metadata.

Metadata status: Researcher-confirmed citation and DOI | **PICOS confidence:** High - PICOS confirmed from the approved case summary

Becker, D., et al. (2024)**Videogame training increases clinical well-being, attention and hippocampal-prefrontal functional connectivity in patients with schizophrenia Translational Psychiatry, 14.**

Citation: Becker, D., et al. (2024). Videogame training increases clinical well-being, attention and hippocampal-prefrontal functional connectivity in patients with schizophrenia Translational Psychiatry, 14.

DOI / link	https://doi.org/10.1038/s41398-024-02945-5 Tags: mood/emotion, cognition/executive function, neuroscience/neuropsychology
P - Population	Patients with schizophrenia
I - Intervention / exposure	Eight weeks of 3D or 2D platform-game training
C - Comparator	E-book reading control
O - Outcomes	Sustained attention, negative symptoms, perceived recovery, hippocampal-prefrontal connectivity
S - Study design	Randomized controlled training study

Source: vgtx, p. 262

Metadata status: Publisher/PubMed record verified online | **PICOS confidence:** Moderate to high - based on source summary and verified citation metadata

Bekir, S., Yayla, İ. E., Makas, S., Mancı, E., & Yildirim, M. (2026)**Life satisfaction and problematic online gaming among young adults: The mediating roles of depression, anxiety, and stress**

Citation: Bekir, S., Yayla, İ. E., Makas, S., Mancı, E., & Yildirim, M. (2026). Life satisfaction and problematic online gaming among young adults: The mediating roles of depression, anxiety, and stress. Entertainment Computing, 58, 101206.

DOI / link	https://doi.org/10.1016/j.entcom.2026.101206 Tags: problematic gaming, depression, anxiety, stress, life satisfaction
P - Population	336 young adults/students
I - Intervention / exposure	Life satisfaction and psychological distress variables
C - Comparator	Variation in predictor/mediator levels
O - Outcomes	Problematic online gaming
S - Study design	Cross-sectional mediation study

Source: Entertainment Computing

Metadata status: Verified | **PICOS confidence:** High

Blanco-Herrera, J. A., Gentile, D. A., & Rökkum, J. N. (2019)**Video Games Can Increase Creativity, but with Caveats**

Citation: Blanco-Herrera, J. A., Gentile, D. A., & Rökkum, J. N. (2019). Video Games Can Increase Creativity, but with Caveats. Creativity Research Journal, 31(2), 119–131. <https://doi.org/10.1080/10400419.2019.1594524>

DOI / link	https://doi.org/10.1080/10400419.2019.1594524 Tags: cognition/neuroscience
P - Population	Participants assigned to video-game play conditions; exact sample pending full-text confirmation
I - Intervention / exposure	Video-game play and game instruction/manipulation
C - Comparator	Alternative game or instruction conditions
O - Outcomes	Creativity/divergent thinking performance
S - Study design	Experimental study

Source: VGTX research p128-128

Metadata status: Web verified – publisher/DOI; Direct experimental video-game/creativity study; missing from current draft. | **PICOS confidence:** Moderate - core study topic verified; exact sample/design pending full text

Blank, I. B., Klucharev, V., & Shestakova, A. (2026)**Video games as stimuli in neuroimaging studies: A minireview *Frontiers in Human Neuroscience*, 20, 1687121.**

Citation: Blank, I. B., Klucharev, V., & Shestakova, A. (2026). Video games as stimuli in neuroimaging studies: A minireview *Frontiers in Human Neuroscience*, 20, 1687121.

DOI / link	https://doi.org/10.3389/fnhum.2026.1687121 Tags: therapy/counseling, mood/emotion, cognition/executive function, neuroscience/neuropsychology, social/identity
P - Population	Neuroimaging studies using video-game stimuli
I - Intervention / exposure	Video games and game-like tasks during neuroimaging
C - Comparator	Varied task and condition contrasts
O - Outcomes	Reward, cognition, emotional responses, cooperation, goal pursuit, and flow-related neural activity
S - Study design	Minireview

Source: vgtx, p. 266

Metadata status: PubMed/publisher record verified online | PICOS confidence: Moderate to high - based on source summary and verified citation metadata

Bocci, F., Ferrari, A., & Sarini, M. (2023)**Putting the gaming experience at the center of the therapy-The Video Game Therapy® approach**

Citation: Bocci, F., Ferrari, A., & Sarini, M. (2023). Putting the gaming experience at the center of the therapy-The Video Game Therapy® approach. *Healthcare (Basel)*, 11(12), 1767.

DOI / link	https://doi.org/10.3390/healthcare11121767 Tags: therapy/counseling, mood/emotion, social/identity
P - Population	Not reported in source summary
I - Intervention / exposure	Putting the gaming experience at the center of therapy-The Video Game Therapy approach
C - Comparator	Not reported or not applicable
O - Outcomes	Mood/emotion regulation, Clinical symptoms/functioning, Social/identity
S - Study design	Study design not fully reported in source summary

Source: VGTx research.pdf, p. 110 (source citation); source extraction p. 150

Metadata status: Source citation checked; DOI source-matched | PICOS confidence: Moderate - provisional PICOS; confirm against full text

Boccia, M., et al (2022)**Video game interventions for autism spectrum disorder: A systematic review *Clinical Psychology Review*, 95, 102173.**

Citation: Boccia, M., et al (2022). Video game interventions for autism spectrum disorder: A systematic review *Clinical Psychology Review*, 95, 102173.

DOI / link	https://doi.org/10.1016/j.cpr.2022.102173 Tags: cognition/executive function, social/identity
P - Population	Studies and participant populations included in the review
I - Intervention / exposure	Video game interventions for autism spectrum disorder: A systematic review
C - Comparator	Varied comparators across included studies
O - Outcomes	Clinical symptoms/functioning, Cognition/executive function, Social/identity
S - Study design	Systematic review

Source: vgtx, p. 150

Metadata status: Source citation checked; DOI source-matched | PICOS confidence: Moderate - provisional PICOS; confirm against full text

Boendermaker, W. J., Maceiras, S. S., Boffo, M., & Wiers, R. W. (2016)**Attentional bias modification with serious game elements: Evaluating the “Shots” game**

Citation: Boendermaker, W. J., Maceiras, S. S., Boffo, M., & Wiers, R. W. (2016). Attentional bias modification with serious game elements: Evaluating the “Shots” game. *JMIR Serious Games*, 4(2), e20.

DOI / link	https://doi.org/10.2196/games.6464 Tags: therapeutic/serious games, cognition/executive function
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Boendermaker, W. J., Maceiras, S. S., Boffo, M., & Wiers, R. W. (2016)
Attentional bias modification with serious game elements: Evaluating the “Shots” game

P - Population	Not reported in source summary
I - Intervention / exposure	Attentional bias modification with serious game elements: Evaluating the "Shots" game
C - Comparator	Not reported or not applicable
O - Outcomes	Cognition/executive function
S - Study design	Study design not fully reported in source summary

Source: VGTX research.pdf, p. 116 (source citation); source extraction p. 116

Metadata status: Source citation checked; DOI source-matched | PICOS confidence: Moderate - provisional PICOS; confirm against full text

Bonnechère, B., Jansen, B., Omelina, L., & Van Sint Jan, S. (2016)
The Use of Commercial Video Games in Rehabilitation: A Systematic Review

Citation: Bonnechère, B., Jansen, B., Omelina, L., & Van Sint Jan, S. (2016). The Use of Commercial Video Games in Rehabilitation: A Systematic Review. International Journal of Rehabilitation Research, 39(4), 277-290.

DOI / link	https://doi.org/10.1097/mrr.000000000000190 Tags: cognition/executive function, rehabilitation
P - Population	Rehabilitation populations represented in included studies
I - Intervention / exposure	Commercial video games and exergames
C - Comparator	Usual rehabilitation or alternative interventions, where available
O - Outcomes	Primarily physical rehabilitation outcomes; cognitive/psychological outcomes when reported
S - Study design	Systematic review

Source: VGTX research.pdf, p. 124 (source citation); source extraction p. 125

Metadata status: PubMed/publisher record verified | PICOS confidence: Moderate to high - based on source summary and verified citation metadata

Boot, W. R., Kramer, A. F., Simons, D. J., Fabiani, M., & Gratton, G. (2008)
The effects of video game playing on attention, memory, and executive control

Citation: Boot, W. R., Kramer, A. F., Simons, D. J., Fabiani, M., & Gratton, G. (2008). The effects of video game playing on attention, memory, and executive control. Acta Psychologica, 129(3), 387-398.

DOI / link	https://doi.org/10.1016/j.actpsy.2008.09.005 Tags: cognition/executive function
P - Population	Not reported in source summary
I - Intervention / exposure	The effects of video game playing on attention, memory, and executive control
C - Comparator	Not reported or not applicable
O - Outcomes	Cognition/executive function
S - Study design	Study design not fully reported in source summary

Source: VGTX research.pdf, p. 246

Metadata status: Citation and DOI corrected during source audit | PICOS confidence: Provisional

Bossenbroek, R., et al. (2020)
Efficacy of a virtual reality biofeedback game (DEEP) to reduce anxiety and disruptive classroom behavior: Single-case study JMIR Mental Health, 7(3), e16066.

Citation: Bossenbroek, R., et al. (2020). Efficacy of a virtual reality biofeedback game (DEEP) to reduce anxiety and disruptive classroom behavior: Single-case study JMIR Mental Health, 7(3), e16066.

DOI / link	https://doi.org/10.2196/16066 Tags: therapy/counseling, mood/emotion, measurement/methods
P - Population	8 adolescents in a special-school setting
I - Intervention / exposure	DEEP virtual-reality biofeedback game
C - Comparator	Non-game baseline phases
O - Outcomes	State anxiety and disruptive classroom behavior

Bossenbroek, R., et al. (2020)

Efficacy of a virtual reality biofeedback game (DEEP) to reduce anxiety and disruptive classroom behavior: Single-case study *JMIR Mental Health*, 7(3), e16066.

S - Study design ABAB single-case experimental study

Source: mood, p. 10

Metadata status: Source summary checked; DOI source-matched | **PICOS confidence:** Moderate to high - based on source summary and verified citation metadata

Botella, C., Breton-López, J., Quero, S., Baños, R. M., García-Palacios, A., & Zaragoza, I. (2011)

Treating cockroach phobia with augmented reality and gaming: A single case study

Citation: Botella, C., Breton-López, J., Quero, S., Baños, R. M., García-Palacios, A., & Zaragoza, I. (2011). Treating cockroach phobia with augmented reality and gaming: A single case study. *Computers in Human Behavior*, 27(1), 217-227.

DOI / link <https://doi.org/10.1016/j.chb.2010.07.043>

Tags: general video-game psychology

P - Population Not reported in source summary

I - Intervention / exposure Treating cockroach phobia with augmented reality and gaming: A single case study

C - Comparator N/A

O - Outcomes Behavior/engagement

S - Study design Case study/report

Source: VGTX research.pdf, p. 116 (source citation); source extraction p. 116

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Bouchard, S., Imbeault, F., Bouzouane, A., & Tremblay, C. (2012)

Biofeedback video games for treating anxiety

Citation: Bouchard, S., Imbeault, F., Bouzouane, A., & Tremblay, C. (2012). Biofeedback video games for treating anxiety. *Cyberpsychology, Behavior, and Social Networking*, 15(3), 123-128.

DOI / link <https://doi.org/10.1089/cyber.2011.0098>

Tags: therapy/counseling, mood/emotion, social/identity

P - Population Patients with subclinical anxiety who played the biofeedback game at home for two we

I - Intervention / exposure Biofeedback video games for treating anxiety

C - Comparator control gameplay - the game rewarded calm breathing by making obstacles easier

O - Outcomes Mood/emotion regulation, Clinical symptoms/functioning, Neural/physiological measures, Behavior/engagement

S - Study design Pilot/feasibility study

Source: VGTX research.pdf, p. 214 (source citation); source extraction p. 214

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate to high - based on source summary and verified citation metadata

Bouchard, S., et al (2023)

Three-dimensional video-game intervention for major depressive disorder: Effects on symptoms, motivation and visuospatial memory *Frontiers in Psychiatry*, 14, 1173652.

Citation: Bouchard, S., et al (2023). Three-dimensional video-game intervention for major depressive disorder: Effects on symptoms, motivation and visuospatial memory *Frontiers in Psychiatry*, 14, 1173652.

DOI / link <https://doi.org/10.3389/fpsy.2023.1173652>

Tags: mood/emotion, cognition/executive function

P - Population People with depression/depressive symptoms or included depression studies

I - Intervention / exposure Game-related exposure/intervention described in the article

C - Comparator Not reported or not applicable

O - Outcomes Mood/emotion regulation, Clinical symptoms/functioning, Cognition/executive function, Behavior/engagement

S - Study design Study design not fully reported in source summary

Bouchard, S., et al (2023)**Three-dimensional video-game intervention for major depressive disorder: Effects on symptoms, motivation and visuospatial memory** *Frontiers in Psychiatry*, 14, 1173652.

Source: vgtx, p. 150

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text**Bowman, N. D., & Tamborini, R. (2012)****Task demand and mood repair: The intervention potential of computer games**Citation: Bowman, N. D., & Tamborini, R. (2012). Task demand and mood repair: The intervention potential of computer games. *New Media & Society*, 14(8), 1339-1357.

DOI / link	https://doi.org/10.1177/1461444812450426 Tags: mood/emotion, cognition/executive function
P - Population	, participants who played a moderately challenging game experienced greater reduction in bad mood compar
I - Intervention / exposure	Task demand and mood repair: The intervention potential of computer games
C - Comparator	Not reported or not applicable
O - Outcomes	Mood/emotion regulation, Cognition/executive function
S - Study design	Study design not fully reported in source summary

Source: VGTx research.pdf, p. 210 (source citation); source extraction p. 210

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate to high - based on source summary and verified citation metadata**Bradt, L., Vansteenkiste, M., Van de Castele, M., Zaman, B., Grosemans, E., De Cock, R., & Soenens, B. (2026)****Psychological need experiences inside and outside gaming as predictors of adolescent problematic gaming and well-being: A longitudinal test of the Need Density Hypothesis**Citation: Bradt, L., Vansteenkiste, M., Van de Castele, M., Zaman, B., Grosemans, E., De Cock, R., & Soenens, B. (2026). Psychological need experiences inside and outside gaming as predictors of adolescent problematic gaming and well-being: A longitudinal test of the Need Density Hypothesis. *Computers in Human Behavior*. Advance online publication.

DOI / link	https://doi.org/10.1016/j.chb.2026.109140 Tags: self-determination theory, psychological needs, problematic gaming, wellbeing
P - Population	661 adolescent gamers
I - Intervention / exposure	Need satisfaction inside versus outside gaming
C - Comparator	Need-density/discrepancy patterns
O - Outcomes	Problematic gaming and mental-health/wellbeing outcomes
S - Study design	Two-wave longitudinal study

Source: Computers in Human Behavior

Metadata status: Verified | **PICOS confidence:** High**Braun, C. M., & Giroux, J. (1989)****Arcade video games: Proxemic, cognitive and content analyses**Citation: Braun, C. M., & Giroux, J. (1989). Arcade video games: Proxemic, cognitive and content analyses. *Journal of Leisure Research*, 21(2), 92-105.

DOI / link	Missing or incomplete - retained for manual Zotero follow-up Tags: mood/emotion, cognition/executive function
P - Population	Not reported in source summary
I - Intervention / exposure	Arcade video games: Proxemic, cognitive and content analyses
C - Comparator	Not reported or not applicable
O - Outcomes	Mood, affect, or emotion regulation, Cognition/executive function

Braun, C. M., & Giroux, J. (1989)**Arcade video games: Proxemic, cognitive and content analyses**

S - Study design	Study design not fully reported in source summary
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Source: VGTx research.pdf, p. 217

Metadata status: Source citation captured; DOI resolution not independently confirmed unless noted | PICOS confidence: Provisional

Brezinka, V. (2008)**Treasure Hunt - a serious game to support psychotherapeutic treatment of children**

Citation: Brezinka, V. (2008). Treasure Hunt - a serious game to support psychotherapeutic treatment of children. Studies in Health Technology and Informatics, 136, 71-76. No DOI available.

DOI / link	Missing or incomplete - retained for manual Zotero follow-up Tags: therapy/counseling, therapeutic/serious games
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P - Population	Not reported in source summary
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I - Intervention / exposure	Treasure Hunt - a serious game to support psychotherapeutic treatment of children
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C - Comparator	Not reported or not applicable
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O - Outcomes	Psychological, behavioral, cognitive, or clinical outcomes reported in the article
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S - Study design	Study design not fully reported in source summary
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Source: VGTx research.pdf, p. 108

Metadata status: Source citation captured; DOI resolution not independently confirmed unless noted | PICOS confidence: Provisional

Brezinka, V. (2014)**Computer games supporting cognitive behavior therapy in children - A clinical observation**

Citation: Brezinka, V. (2014). Computer games supporting cognitive behavior therapy in children - A clinical observation. Clinical Child Psychology and Psychiatry, 19(1), 100-110. SAGE Journals.

DOI / link	https://doi.org/10.1177/1359104512468288 Tags: therapy/counseling, cognition/executive function
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P - Population	children
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I - Intervention / exposure	Computer games supporting cognitive behavior therapy in children - A clinical observation
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C - Comparator	Not reported or not applicable
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O - Outcomes	Clinical symptoms/functioning, Cognition/executive function, Behavior/engagement
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S - Study design	Study design not fully reported in source summary
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Source: VGTx research.pdf, p. 136 (source citation); source extraction p. 136

Metadata status: Source citation checked; DOI source-matched | PICOS confidence: Moderate to high - based on source summary and verified citation metadata

Brezinka, V (2021)**Video games in psychotherapy: A review of the last decade Journal of Contemporary Psychotherapy, 51, 181-189.**

Citation: Brezinka, V (2021). Video games in psychotherapy: A review of the last decade Journal of Contemporary Psychotherapy, 51, 181-189.

DOI / link	https://doi.org/10.1007/s10879-020-09477-0 Tags: therapy/counseling
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P - Population	Not reported in source summary
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I - Intervention / exposure	Video games in psychotherapy: A review of the last decade
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C - Comparator	Varied comparators across included studies
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O - Outcomes	Clinical symptoms/functioning
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S - Study design	Review
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Source: vgtx, p. 149 C

Metadata status: Source citation checked; DOI source-matched | PICOS confidence: Moderate - provisional PICOS; confirm against full text

Brockmyer, J. H., Fox, C. M., Curtiss, K. A., McBroom, E., Burkhart, K. M., & Pidruzny, J. N. (2009)
The development of the Game Engagement Questionnaire: A measure of engagement in video game-playing

Citation: Brockmyer, J. H., Fox, C. M., Curtiss, K. A., McBroom, E., Burkhart, K. M., & Pidruzny, J. N. (2009). The development of the Game Engagement Questionnaire: A measure of engagement in video game-playing. *Journal of Experimental Social Psychology*, 45(4), 624-634.

DOI / link <https://doi.org/10.1016/j.jesp.2009.02.016>
Tags: motivation/player experience

P - Population	Not reported in source summary
I - Intervention / exposure	Development of the Game Engagement Questionnaire (GEQ).
C - Comparator	Not reported or not applicable
O - Outcomes	Motivation, engagement, flow, or psychological needs
S - Study design	Psychometric development/validation

Source: VGTx research.pdf, p. 247

Metadata status: Citation and DOI corrected during source audit | **PICOS confidence:** Provisional

Butler, O., Herr, K., Willmund, G., Gallinat, J., Kühn, S., & Zimmermann, P. (2020)
Trauma, treatment and Tetris: Video gaming increases hippocampal volume in male patients with combat-related posttraumatic stress disorder

Citation: Butler, O., Herr, K., Willmund, G., Gallinat, J., Kühn, S., & Zimmermann, P. (2020). Trauma, treatment and Tetris: Video gaming increases hippocampal volume in male patients with combat-related posttraumatic stress disorder. *Journal of Psychiatry & Neuroscience*, 45(4), 279-287.

DOI / link <https://doi.org/10.1503/jpn.190027>
Tags: therapy/counseling, mood/emotion, neuroscience/neuropsychology

P - Population	People with PTSD or trauma exposure
I - Intervention / exposure	Trauma, treatment and Tetris: Video gaming increases hippocampal volume in male patients with combat-related posttraumatic stress disorder
C - Comparator	Not reported or not applicable
O - Outcomes	Neural or neuropsychological outcomes, Stress or psychophysiological arousal
S - Study design	Study design not fully reported in source summary

Source: VGTx research.pdf, p. 109

Metadata status: Source citation captured; DOI resolution not independently confirmed unless noted | **PICOS confidence:** Provisional

C | Alphabetical records

Calvert, S. L., & Tan, S. L. (1994)
Impact of virtual reality on young adults' physiological arousal and aggressive thoughts: Interaction versus observation

Citation: Calvert, S. L., & Tan, S. L. (1994). Impact of virtual reality on young adults' physiological arousal and aggressive thoughts: Interaction versus observation. *Journal/venue not fully reported in source excerpt.*

DOI / link	Missing or incomplete - retained for manual Zotero follow-up Tags: aggression/prosociality
P - Population	Adults
I - Intervention / exposure	Impact of virtual reality on young adults' physiological arousal and aggressive thoughts: Interaction versus observation
C - Comparator	Control, treatment-as-usual, active comparison, or alternate condition as reported
O - Outcomes	Aggression/prosocial behavior, Stress or psychophysiological arousal
S - Study design	Study design not fully reported in source summary

Source: VGTx research.pdf, p. 208

Metadata status: Externally verified where stated; otherwise source citation retained for later Zotero confirmation | **PICOS confidence:** Provisional

Cangas, A. J., Navarro, N., Parra, J. M., Ojeda, J. J., Cangas, D., Piedra, J. A., et al. (2017)
Stigma-Stop: A serious game against the stigma toward mental health in educational settings

Citation: Cangas, A. J., Navarro, N., Parra, J. M., Ojeda, J. J., Cangas, D., Piedra, J. A., et al. (2017). Stigma-Stop: A serious game against the stigma toward mental health in educational settings. *Frontiers in Psychology*, 8, 1385.

DOI / link	https://doi.org/10.3389/fpsyg.2017.01385 Tags: therapeutic/serious games, social/identity
P - Population	Not reported in source summary
I - Intervention / exposure	Stigma-Stop: A serious game against the stigma toward mental health in educational settings
C - Comparator	Not reported or not applicable
O - Outcomes	Social/identity
S - Study design	Study design not fully reported in source summary

Source: VGTX research.pdf, p. 120 (source citation); source extraction p. 120

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Caputo, A., Vercelli, G., & Cortese, C. G. (2026)
Psychological training in esports: Performance enhancement in professional esports athletes

Citation: Caputo, A., Vercelli, G., & Cortese, C. G. (2026). Psychological training in esports: Performance enhancement in professional esports athletes. *International Journal of Sports Science & Coaching*, 21(3), 1621–1629.

DOI / link	https://doi.org/10.1177/17479541251407498 Tags: esports, psychological training, emotion regulation, self-regulation, affect
P - Population	97 professional esports players
I - Intervention / exposure	e-S.F.E.R.A. psychological training, n = 59
C - Comparator	Control group, n = 38
O - Outcomes	Self-regulation, perceived performance, satisfaction, affect, engagement
S - Study design	Quasi-experimental repeated-measures controlled study

Source: International Journal of Sports Science & Coaching

Metadata status: Verified | **PICOS confidence:** High

Carrasco, A. E. (2016)
Acceptability of an adventure video game in the treatment of female adolescents with symptoms of depression

Citation: Carrasco, A. E. (2016). Acceptability of an adventure video game in the treatment of female adolescents with symptoms of depression. *Research in Psychotherapy: Psychopathology, Process and Outcome*, 19(1), 10-18.

DOI / link	https://doi.org/10.4081/ripppo.2016.182 Tags: therapy/counseling, mood/emotion
P - Population	adolescents
I - Intervention / exposure	Acceptability of an adventure video game in the treatment of female adolescents with symptoms of depression
C - Comparator	Not reported or not applicable
O - Outcomes	Mood/emotion regulation, Clinical symptoms/functioning, Behavior/engagement
S - Study design	Study design not fully reported in source summary

Source: VGTX research.pdf, p. 117 (source citation); source extraction p. 117

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate to high - based on source summary and verified citation metadata

Castro, et al. (2026)**Longitudinal changes in gamers profiles and gaming disorder risk Computers in Human Behavior, 109064.**

Citation: Castro, et al. (2026). Longitudinal changes in gamers profiles and gaming disorder risk Computers in Human Behavior, 109064.

DOI / link	https://doi.org/10.1016/j.chb.2026.109064 Tags: mood/emotion, gaming disorder
P - Population	Video-game players
I - Intervention / exposure	Psychological distress, emotion regulation, relational functioning, and gaming behavior as exposures
C - Comparator	Gamer-profile groups across waves
O - Outcomes	Gaming-disorder risk and profile transitions
S - Study design	Three-wave longitudinal latent-profile study

Source: vgtx, p. 265

Metadata status: Publisher/index record verified online | PICOS confidence: Moderate to high - based on source summary and verified citation metadata

Cejudo, J., Losada, L., & Feltrero, R. (2020)**Promoting social and emotional learning and subjective well-being: Impact of the “Aislados” video game program in adolescents**

Citation: Cejudo, J., Losada, L., & Feltrero, R. (2020). Promoting social and emotional learning and subjective well-being: Impact of the “Aislados” video game program in adolescents. International Journal of Environmental Research and Public Health, 17(2), 609.

DOI / link	https://doi.org/10.3390/ijerph17020609 Tags: therapy/counseling, therapeutic/serious games, mood/emotion, cognition/executive function, neuroscience/neuropsychology
P - Population	Adolescents
I - Intervention / exposure	Aislados serious-game intervention program
C - Comparator	Comparison condition as reported in article
O - Outcomes	Social-emotional learning and subjective well-being
S - Study design	School-based intervention study

Source: VGTx research.pdf, p. 118 (source citation); source extraction p. 118

Metadata status: PubMed/publisher record verified | PICOS confidence: Moderate to high - based on source summary and verified citation metadata

Ceranoglu, T. A. (2000)**Therapeutic considerations for video-game use in psychiatry**

Citation: Ceranoglu, T. A. (2000). Therapeutic considerations for video-game use in psychiatry. Harvard Review of Psychiatry, 8, 124-131.

DOI / link	https://doi.org/10.1080/hrp.8.3.124 Tags: therapy/counseling
P - Population	Not reported in source summary
I - Intervention / exposure	Game-related exposure/intervention described in the article
C - Comparator	Varied comparators across included studies
O - Outcomes	Clinical symptoms/functioning
S - Study design	Review

Source: VGTx research.pdf, p. 144 (source citation); source extraction p. 144

Metadata status: Source citation checked; DOI source-matched | PICOS confidence: Moderate - provisional PICOS; confirm against full text

Ceranoglu, T. A. (2010)**Star Wars in psychotherapy: Video games in the office**

Citation: Ceranoglu, T. A. (2010). Star Wars in psychotherapy: Video games in the office. Academic Psychiatry, 34(3), 233-236.

DOI / link	https://doi.org/10.1176/appi.ap.34.3.233 Tags: therapy/counseling
P - Population	Not reported in source summary
I - Intervention / exposure	Star Wars in psychotherapy: Video games in the office

Ceranoglu, T. A. (2010)**Star Wars in psychotherapy: Video games in the office**

C - Comparator	N/A
O - Outcomes	Clinical symptoms/functioning, Behavior/engagement
S - Study design	Theory/framework

Source: VGTx research.pdf, p. 108 (source citation); source extraction p. 145

Metadata status: Source citation checked; DOI source-matched | PICOS confidence: Moderate - provisional PICOS; confirm against full text

Ceranoglu, T. A. (2010)**Video Games in Psychotherapy**

Citation: Ceranoglu, T. A. (2010). Video Games in Psychotherapy. Review of General Psychology, 14(2), 141–146.
<https://doi.org/10.1037/a0019439>

DOI / link	https://doi.org/10.1037/a0019439 Tags: therapeutic/clinical
P - Population	Psychotherapy clients and clinical cases discussed in the review
I - Intervention / exposure	Use of video games within psychotherapy
C - Comparator	N/A
O - Outcomes	Clinical engagement, assessment, therapeutic alliance, and treatment applications
S - Study design	Clinical/narrative review

Source: VGTx research p121-121

Metadata status: Web verified – publisher/DOI; Direct psychotherapy-and-video-games review; missing from current draft. | PICOS confidence: High for study type and topic; review details should be checked in full text

Cervantes, J. A., López, S., Cervantes, S., & Hernández, A. (2023)**Social robots and brain-computer interface video games for dealing with ADHD: A systematic review**

Citation: Cervantes, J. A., López, S., Cervantes, S., & Hernández, A. (2023). Social robots and brain-computer interface video games for dealing with ADHD: A systematic review. Brain Sciences, 13(8), 1172.

DOI / link	https://doi.org/10.3390/brainsci13081172 Tags: neuroscience/neuropsychology, social/identity
P - Population	Studies and participant populations included in the review
I - Intervention / exposure	Social robots and brain-computer interface video games for dealing with ADHD: A systematic review
C - Comparator	Varied comparators across included studies
O - Outcomes	Neural/physiological measures, Social/identity
S - Study design	Systematic review

Source: VGTx research.pdf, p. 119 (source citation); source extraction p. 119

Metadata status: Source citation checked; DOI source-matched | PICOS confidence: Moderate - provisional PICOS; confirm against full text

Chanel, G., Rebetez, C., Bétrancourt, M., & Pun, T. (2011)**Boredom, engagement and anxiety as indicators for adaptive video games**

Citation: Chanel, G., Rebetez, C., Bétrancourt, M., & Pun, T. (2011). Boredom, engagement and anxiety as indicators for adaptive video games. Entertainment Computing, 2(3), 138-146.

DOI / link	https://doi.org/10.1016/j.entcom.2011.03.002 Tags: mood/emotion
P - Population	Not reported in source summary
I - Intervention / exposure	Boredom, engagement and anxiety as indicators for adaptive video games
C - Comparator	vs. engagement, suggesting practical sensors for adaptive difficulty adjustment
O - Outcomes	Mood/emotion regulation, Neural/physiological measures, Behavior/engagement
S - Study design	Study design not fully reported in source summary

Chanel, G., Rebetez, C., Bétrancourt, M., & Pun, T. (2011)**Boredom, engagement and anxiety as indicators for adaptive video games**

Source: VGTX research.pdf, p. 214 (source citation); source extraction p. 214

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Chauchard, E., Dupau, M., Khazaal, Y., & Moreau, A. (2025)**Tilt in video gaming: Development and validation of the Video Gaming Tilt Scale (VGTS)**

Citation: Chauchard, E., Dupau, M., Khazaal, Y., & Moreau, A. (2025). Tilt in video gaming: Development and validation of the Video Gaming Tilt Scale (VGTS). *European Review of Applied Psychology*, 75(6), Article 101100.

DOI / link	https://doi.org/10.1016/j.erap.2025.101100 Tags: mood/emotion, measurement/methods
P - Population	Not reported in source summary
I - Intervention / exposure	Tilt in video gaming: Development and validation of the Video Gaming Tilt Scale (VGTS)
C - Comparator	Varied comparators across included studies
O - Outcomes	Mood/emotion regulation
S - Study design	Review

Source: VGTX research.pdf, p. 260 (source citation); source extraction p. 198

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Cheek, C., Fleming, T., Lucassen, M., Bridgman, H., Stasiak, K., Shepherd, M., & Orpin, P. (2015)**Integrating health behavior theory and design elements in serious games**

Citation: Cheek, C., Fleming, T., Lucassen, M., Bridgman, H., Stasiak, K., Shepherd, M., & Orpin, P. (2015). Integrating health behavior theory and design elements in serious games. *JMIR Mental Health*, 2(2), e11.

DOI / link	https://doi.org/10.2196/mental.4133 Tags: therapeutic/serious games
P - Population	Not reported in source summary
I - Intervention / exposure	Integrating health behavior theory and design elements in serious games
C - Comparator	N/A
O - Outcomes	Behavior/engagement
S - Study design	Theory/framework

Source: VGTX research.pdf, p. 120 (source citation); source extraction p. 120

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Chen, L.-X., & Sun, C.-T. (2016)**Self-regulation influence on game play flow state**

Citation: Chen, L.-X., & Sun, C.-T. (2016). Self-regulation influence on game play flow state. *Computers in Human Behavior*, 54, 341-350.

DOI / link	https://doi.org/10.1016/j.chb.2015.08.020 Tags: mood/emotion
P - Population	Not reported in source summary
I - Intervention / exposure	Game-related exposure/intervention described in the article
C - Comparator	Not reported or not applicable
O - Outcomes	Mood/emotion regulation, Behavior/engagement
S - Study design	Study design not fully reported in source summary

Source: VGTX research.pdf, p. 260 (source citation); source extraction p. 198

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Cheng, Y.-H. (2019)**The Mediating Effects of Motivation for Playing Pokémon Go on Internet Gaming Disorder and Well-Being**

Citation: Cheng, Y.-H. (2019). The Mediating Effects of Motivation for Playing Pokémon Go on Internet Gaming Disorder and Well-Being. The American Journal of Family Therapy, 47, 19–36. <https://doi.org/10.1080/01926187.2019.1583614>

DOI / link	https://doi.org/10.1080/01926187.2019.1583614 Tags: mood/emotion/mental health, gaming disorder/problematic play, motivation/engagement
P - Population	Pokémon Go players
I - Intervention / exposure	Motivations for playing Pokémon Go
C - Comparator	N/A; mediation paths among measured constructs
O - Outcomes	Internet gaming disorder symptoms and well-being
S - Study design	Cross-sectional mediation study

Source: VGTx research p128-128

Metadata status: Web verified – publisher/DOI; Direct gaming-disorder and well-being study; missing from current draft. | **PICOS confidence:** Moderate - title/venue/DOI verified; verify sample and measures in full text

Cheng, Y.-H. (2021)**Effects of Playing Internet Games on Imagination**

Citation: Cheng, Y.-H. (2021). Effects of Playing Internet Games on Imagination. Thinking Skills and Creativity, 41, 100924. <https://doi.org/10.1016/j.tsc.2021.100924>

DOI / link	https://doi.org/10.1016/j.tsc.2021.100924 Tags: cognition/neuroscience
P - Population	24 volunteers
I - Intervention / exposure	Four weeks of Internet-game play
C - Comparator	Solomon five-group experimental conditions
O - Outcomes	Imaginative capacity and EEG change
S - Study design	Randomized Solomon five-group experiment

Source: VGTx research p128-128

Metadata status: Web verified – publisher metadata; Source said “online games”; verified title uses “internet games.” Missing from current draft. | **PICOS confidence:** High for core design/sample from article abstract

Cheng, Y.-H. (2025)**The impact of online games on creativity and the role of imagination**

Citation: Cheng, Y.-H. (2025). The impact of online games on creativity and the role of imagination. Frontiers in Behavioral Neuroscience.

DOI / link	https://doi.org/10.3389/fnbeh.2025.1561548 Tags: cognition/executive function, neuroscience/neuropsychology
P - Population	Not reported in source summary
I - Intervention / exposure	The impact of online games on creativity and the role of imagination
C - Comparator	Not reported or not applicable
O - Outcomes	Cognition/executive function, Neural or neuropsychological outcomes
S - Study design	Study design not fully reported in source summary

Source: VGTx research.pdf, p. 127

Metadata status: Externally verified where stated; otherwise source citation retained for later Zotero confirmation | **PICOS confidence:** Provisional

Cho, M., Kwon, H., Lee, J., & Lee, G. (2020)**The effect of neurofeedback-based stress management game on emotional regulation in patients with anxiety**

Citation: Cho, M., Kwon, H., Lee, J., & Lee, G. (2020). The effect of neurofeedback-based stress management game on emotional regulation in patients with anxiety. Journal of Medical Internet Research, 22(6), e15715.

DOI / link	https://doi.org/10.2196/15715 Tags: therapeutic/serious games, mood/emotion, neuroscience/neuropsychology
P - Population	Patients with anxiety.
I - Intervention / exposure	Neurofeedback-based stress-management game training.
C - Comparator	Preintervention or comparison condition described in the source; exact comparator not reported in the approved summary.
O - Outcomes	Emotional regulation, anxiety and stress responses, and neurofeedback-related self-regulation.
S - Study design	Clinical intervention study; exact allocation details require full-text confirmation.
Source: Researcher-approved source abstract/summary and citation metadata. Metadata status: Researcher-confirmed citation and DOI PICOS confidence: Moderate - core PICOS confirmed from the approved summary; design details remain provisional	

Choi, E., Shin, S.-H., Ryu, J.-K., Jung, K.-I., Kim, S.-Y., & Park, M.-H. (2020)**Commercial video games and cognitive functions: Video game genres and modulating factors of cognitive enhancement**

Citation: Choi, E., Shin, S.-H., Ryu, J.-K., Jung, K.-I., Kim, S.-Y., & Park, M.-H. (2020). Commercial video games and cognitive functions: Video game genres and modulating factors of cognitive enhancement. *Behavioral and Brain Functions*, 16(1), Article 2.

DOI / link	https://doi.org/10.1186/s12993-020-0165-z Tags: cognition/executive function, neuroscience/neuropsychology
P - Population	Not reported in source summary
I - Intervention / exposure	Commercial video games and cognitive functions: Video game genres and modulating factors of cognitive enhancement
C - Comparator	Not reported or not applicable
O - Outcomes	Cognition/executive function, Neural or neuropsychological outcomes
S - Study design	Study design not fully reported in source summary
Source: VGTX research.pdf, p. 260 Metadata status: Source citation captured; DOI resolution not independently confirmed unless noted PICOS confidence: Provisional	

Chopik, W. J., & Markey, P. M. (2018)**Playing video games is associated with positive youth outcomes: A longitudinal study**

Citation: Chopik, W. J., & Markey, P. M. (2018). Playing video games is associated with positive youth outcomes: A longitudinal study. *Psychology of Popular Media Culture*, 7(4), 432-447.

DOI / link	https://doi.org/10.1037/ppm0000142 Tags: mood/emotion, social/identity
P - Population	adolescents
I - Intervention / exposure	Playing video games is associated with positive youth outcomes: A longitudinal study
C - Comparator	Lower/no gaming exposure, alternate player groups, or modeled comparison
O - Outcomes	Mood/emotion regulation, Clinical symptoms/functioning, Social/identity
S - Study design	Longitudinal observational study
Source: VGTX research.pdf, p. 210 (source citation); source extraction p. 210 Metadata status: Source citation checked; DOI source-matched PICOS confidence: Moderate to high - based on source summary and verified citation metadata	

Christou, E., et al (2022)**Serious video games for eating disorders: A systematic review *Journal of Eating Disorders*, 10, 156.**

Citation: Christou, E., et al (2022). Serious video games for eating disorders: A systematic review *Journal of Eating Disorders*, 10, 156.

DOI / link	https://doi.org/10.1186/s40337-022-00615-3 Tags: general video-game psychology
P - Population	Studies and participant populations included in the review

Christou, E., et al (2022)**Serious video games for eating disorders: A systematic review** *Journal of Eating Disorders*, 10, 156.

I - Intervention / exposure	Serious video games for eating disorders: A systematic review
C - Comparator	Varied comparators across included studies
O - Outcomes	Clinical symptoms/functioning
S - Study design	Systematic review

Source: vgtx, p. 149

Metadata status: Source citation checked; DOI source-matched | PICOS confidence: Moderate - provisional PICOS; confirm against full text

Ciążyńska, J., Rudowicz, A. K., Worska, A., & Maciaszek, J. (2026)**Structured virtual reality exergame intervention in adolescents with mild intellectual disabilities: Pre-post pilot study on motor proficiency and reaction time**Citation: Ciążyńska, J., Rudowicz, A. K., Worska, A., & Maciaszek, J. (2026). Structured virtual reality exergame intervention in adolescents with mild intellectual disabilities: Pre-post pilot study on motor proficiency and reaction time. *JMIR Serious Games*, 14, e95572.

DOI / link	https://doi.org/10.2196/95572 Tags: VR, exergame, intellectual disability, reaction time, cognition
P - Population	8 adolescents/young adults with mild intellectual disability
I - Intervention / exposure	16 structured OhShape! sessions
C - Comparator	Pre-intervention performance
O - Outcomes	Reaction time and motor proficiency
S - Study design	Single-group pre-post pilot

Source: JMIR Serious Games

Metadata status: Verified | PICOS confidence: High

Coelho, & Abreu (2026)**Mental healing through immersive play: An umbrella review** *Virtual Reality*.Citation: Coelho, & Abreu (2026). Mental healing through immersive play: An umbrella review *Virtual Reality*.

DOI / link	https://doi.org/10.1007/s10055-026-01352-z Tags: therapeutic/serious games, mood/emotion
P - Population	Populations represented in included reviews
I - Intervention / exposure	Commercial games, serious games, exergames, and XR games
C - Comparator	Varied controls across reviews
O - Outcomes	Anxiety, depression, stress, and related mental-health outcomes
S - Study design	Umbrella review

Source: vgtx, p. 265

Metadata status: Publisher record verified online | PICOS confidence: Moderate to high - based on source summary and verified citation metadata

Coenen, F., Scheepers, F. E., Palmen, S. J. M., de Jonge, M. V. L., & Oranje, B. (2020)**Serious Games as Potential Therapies: A Validation Study of a Neurofeedback Game**Citation: Coenen, F., Scheepers, F. E., Palmen, S. J. M., de Jonge, M. V. L., & Oranje, B. (2020). Serious Games as Potential Therapies: A Validation Study of a Neurofeedback Game. *Clinical EEG and Neuroscience*, 51(2), 87-93.

DOI / link	https://doi.org/10.1177/1550059419869471 Tags: therapeutic/serious games, neuroscience/neuropsychology, measurement/methods
P - Population	Not reported in source summary
I - Intervention / exposure	Serious Games as Potential Therapies: A Validation Study of a Neurofeedback Game

Coenen, F., Scheepers, F. E., Palmen, S. J. M., de Jonge, M. V. L., & Oranje, B. (2020)
Serious Games as Potential Therapies: A Validation Study of a Neurofeedback Game

C - Comparator	Not reported or not applicable
O - Outcomes	Clinical symptoms/functioning, Neural/physiological measures
S - Study design	Psychometric validation study

Source: VGTX research.pdf, p. 125 (source citation); source extraction p. 125

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Colder Carras, M., Van Rooij, A. J., Spruijt-Metz, D., Kvedar, J., Griffiths, M. D., Carabas, Y., & Labrique, A. (2018)
Commercial video games as therapy: A new research agenda to unlock the potential of a global pastime

Citation: Colder Carras, M., Van Rooij, A. J., Spruijt-Metz, D., Kvedar, J., Griffiths, M. D., Carabas, Y., & Labrique, A. (2018). Commercial video games as therapy: A new research agenda to unlock the potential of a global pastime. *Frontiers in Psychiatry*, 8, 300.

DOI / link	https://doi.org/10.3389/fpsyt.2017.00300 Tags: therapy/counseling
P - Population	Not reported in source summary
I - Intervention / exposure	Commercial video games as therapy: A new research agenda to unlock the potential of a global pastime
C - Comparator	Not reported or not applicable
O - Outcomes	Clinical symptoms/functioning
S - Study design	Study design not fully reported in source summary

Source: VGTX research.pdf, p. 109 (source citation); source extraction p. 135

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Colder Carras, M., Kalbarczyk, A., Wells, K., Banks, J., Kowert, R., Gillespie, C., & Latkin, C. A. (2018)
Connection, meaning, and distraction: A qualitative study of video game play and mental health recovery in veterans treated for mental and/or behavioral health problems

Citation: Colder Carras, M., Kalbarczyk, A., Wells, K., Banks, J., Kowert, R., Gillespie, C., & Latkin, C. A. (2018). Connection, meaning, and distraction: A qualitative study of video game play and mental health recovery in veterans treated for mental and/or behavioral health problems. *Social Science & Medicine*, 216, 124-132.

DOI / link	https://doi.org/10.1016/j.socscimed.2018.08.044 Tags: social/identity
P - Population	Not reported in source summary
I - Intervention / exposure	Connection, meaning, and distraction: A qualitative study of video game play and mental health recovery in veterans treated for mental and/or behavioral health problems
C - Comparator	N/A
O - Outcomes	Clinical symptoms/functioning, Behavior/engagement, Social/identity
S - Study design	Qualitative study

Source: VGTX research.pdf, p. 198 (source citation); source extraction p. 198

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Colwell, J., & Kato, M. (2003)
Investigation of the relationship between social isolation, self-esteem, and video game play in Japanese adolescents

Citation: Colwell, J., & Kato, M. (2003). Investigation of the relationship between social isolation, self-esteem, and video game play in Japanese adolescents. *Asian Journal of Social Psychology*, 6(2), 149-158.

DOI / link	https://doi.org/10.1046/j.1467-839x.2003.00120.x Tags: mood/emotion, social/identity
P - Population	adolescents
I - Intervention / exposure	Investigation of the relationship between social isolation, self-esteem, and video game play in Japanese adolescents
C - Comparator	Not reported or not applicable
O - Outcomes	Mood/emotion regulation, Social/identity

Colwell, J., & Kato, M. (2003)**Investigation of the relationship between social isolation, self-esteem, and video game play in Japanese adolescents**

S - Study design	Study design not fully reported in source summary
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Source: VGTX research.pdf, p. 209 (source citation); source extraction p. 209

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate to high - based on source summary and verified citation metadata

Cooper, J., & Mackie, D. (1986)**Video games and aggression in children**

Citation: Cooper, J., & Mackie, D. (1986). Video games and aggression in children. Journal of Applied Social Psychology, 16(8), 726-744.

DOI / link	https://doi.org/10.1111/j.1559-1816.1986.tb01755.x Tags: mood/emotion, social/identity
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P - Population	children
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I - Intervention / exposure	Video games and aggression in children
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C - Comparator	Not reported or not applicable
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O - Outcomes	Mood/emotion regulation, Behavior/engagement, Social/identity
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S - Study design	Study design not fully reported in source summary
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Source: VGTX research.pdf, p. 217 (source citation); source extraction p. 217

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate to high - based on source summary and verified citation metadata

Coughlan, G., Laczó, J., Hort, J., Minihane, A.-M., & Hornberger, M. (2019)**Toward Personalized Cognitive Diagnostics of at-Genetic-Risk Alzheimer's Disease**

Citation: Coughlan, G., Laczó, J., Hort, J., Minihane, A.-M., & Hornberger, M. (2019). Toward Personalized Cognitive Diagnostics of at-Genetic-Risk Alzheimer's Disease. Proceedings of the National Academy of Sciences, 116(19), 9285-9292.

DOI / link	https://doi.org/10.1073/pnas.1901600116 Tags: cognition/executive function
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P - Population	Not reported in source summary
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I - Intervention / exposure	Game-related exposure/intervention described in the article
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C - Comparator	Not reported or not applicable
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O - Outcomes	Cognition/executive function
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S - Study design	Study design not fully reported in source summary
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Source: VGTX research.pdf, p. 124 (source citation); source extraction p. 124

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Coyle, D., Matthews, M., Sharry, J., Nisbet, A., & Doherty, G. (2005)**Personal Investigator: A therapeutic 3D game for adolescent psychotherapy**

Citation: Coyle, D., Matthews, M., Sharry, J., Nisbet, A., & Doherty, G. (2005). Personal Investigator: A therapeutic 3D game for adolescent psychotherapy. Interactive Technology and Smart Education, 2(2), 73-88. Emerald Insight.

DOI / link	https://doi.org/10.1108/17415650580000041 Tags: therapy/counseling
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P - Population	Children and/or adolescents
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I - Intervention / exposure	Personal Investigator: A therapeutic 3D game for adolescent psychotherapy
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C - Comparator	Not reported or not applicable
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O - Outcomes	Psychological, behavioral, cognitive, or clinical outcomes reported in the article
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S - Study design	Study design not fully reported in source summary
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Source: VGTX research.pdf, p. 135

Metadata status: Source citation captured; DOI resolution not independently confirmed unless noted | **PICOS confidence:** Provisional

Coyle, D., McGlade, N., Doherty, G., & O'Reilly, G. (2011)**Exploratory evaluations of a computer game supporting cognitive behavioral therapy for adolescents**

Citation: Coyle, D., McGlade, N., Doherty, G., & O'Reilly, G. (2011). Exploratory evaluations of a computer game supporting cognitive behavioral therapy for adolescents. Proceedings of CHI 2011 (pp. 2937-2946).

DOI / link	https://doi.org/10.1145/1978942.1979378 Tags: therapy/counseling, cognition/executive function
P - Population	adolescents
I - Intervention / exposure	Exploratory evaluations of a computer game supporting cognitive behavioral therapy for adolescents
C - Comparator	Not reported or not applicable
O - Outcomes	Clinical symptoms/functioning, Cognition/executive function, Behavior/engagement
S - Study design	Study design not fully reported in source summary

Source: VGTX research.pdf, p. 116 (source citation); source extraction p. 116

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate to high - based on source summary and verified citation metadata

Creed, L. M., Shu, D., Guo, D., Wang, Z., Lange-Nawka, D. C., & Wünsche, B. C. (2026)**Rhythm Walker: The effect of music choice and rhythm in game-music integration for exergames**

Citation: Creed, L. M., Shu, D., Guo, D., Wang, Z., Lange-Nawka, D. C., & Wünsche, B. C. (2026). Rhythm Walker: The effect of music choice and rhythm in game-music integration for exergames. In Proceedings of the 21st International Conference on the Foundations of Digital Games, Article 55, 1–12. ACM.

DOI / link	https://doi.org/10.1145/3815598.3815624 Tags: exergame, rhythm, music, motivation, enjoyment
P - Population	Study 1 N = 15; Study 2 N = 10
I - Intervention / exposure	Rhythm-integrated AR exergaming/music choice
C - Comparator	Alternative music integration/selection conditions
O - Outcomes	Enjoyment, effort, motivation, preference, behavior
S - Study design	Two experimental user studies

Source: ACM FDG 2026

Metadata status: Verified | **PICOS confidence:** High

Cregan, S. C., Toth, A. J., & Campbell, M. J. (2024)**Playing for keeps or just playing with emotion? Studying tilt and emotion regulation in video games**

Citation: Cregan, S. C., Toth, A. J., & Campbell, M. J. (2024). Playing for keeps or just playing with emotion? Studying tilt and emotion regulation in video games. Frontiers in Psychology, 15, Article 1385242.

DOI / link	https://doi.org/10.3389/fpsyg.2024.1385242 Tags: mood/emotion
P - Population	Not reported in source summary
I - Intervention / exposure	Playing for keeps or just playing with emotion? Studying tilt and emotion regulation in video games
C - Comparator	Not reported or not applicable
O - Outcomes	Mood/emotion regulation
S - Study design	Study design not fully reported in source summary

Source: VGTX research.pdf, p. 260 (source citation); source extraction p. 198

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Cregan, S. C., Shannon, S., Breslin, G., & Prentice, G. (2025)
The psychology of tilt: Understanding tilt and coping strategies in video games

Citation: Cregan, S. C., Shannon, S., Breslin, G., & Prentice, G. (2025). The psychology of tilt: Understanding tilt and coping strategies in video games. *Cyberpsychology, Behavior, and Social Networking*, 28(1), 60-67.

DOI / link	https://doi.org/10.1089/cyber.2024.0320 Tags: mood/emotion, social/identity
P - Population	Not reported in source summary
I - Intervention / exposure	The psychology of tilt: Understanding tilt and coping strategies in video games
C - Comparator	Not reported or not applicable
O - Outcomes	Mood/emotion regulation, Clinical symptoms/functioning, Behavior/engagement, Social/identity
S - Study design	Study design not fully reported in source summary

Source: VGTX research.pdf, p. 198 (source citation); source extraction p. 198

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Crepaldi, M., Bocci, F., Sarini, M., & Greco, A. (2025)
An integrated approach of Video Game Therapy®: A case study

Citation: Crepaldi, M., Bocci, F., Sarini, M., & Greco, A. (2025). An integrated approach of Video Game Therapy®: A case study. *Information*, 16(1), 68.

DOI / link	https://doi.org/10.3390/info16010068 Tags: therapy/counseling, therapeutic/serious games, mood/emotion, social/identity, rehabilitation
P - Population	Not reported in source summary
I - Intervention / exposure	An integrated approach of Video Game Therapy: A case study
C - Comparator	Control), ADHD (EndeavorRx), and other conditions
O - Outcomes	Mood/emotion regulation, Clinical symptoms/functioning, Social/identity
S - Study design	Systematic review and meta-analysis

Source: VGTX research.pdf, p. 110 (source citation); source extraction p. 151

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Citation: Crepaldi, M., et al (2023). Serious games for anger regulation: Systematic review *Frontiers in Psychology*, 14, 1178891.

DOI / link	https://doi.org/10.3389/fpsyg.2023.1178891 Tags: therapeutic/serious games
P - Population	Studies and participant populations included in the review
I - Intervention / exposure	Serious games for anger regulation: Systematic review
C - Comparator	Varied comparators across included studies
O - Outcomes	Outcome domain NR in source summary
S - Study design	Systematic review

Source: vgtx, p. 151

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Cuthbert, J. P., Staniszewski, K., Hays, K., Gerber, D., et al. (2014)
Virtual reality-based therapy for the treatment of balance deficits in patients receiving inpatient rehabilitation for traumatic brain injury

Citation: Cuthbert, J. P., Staniszewski, K., Hays, K., Gerber, D., Natale, A., & O'Dell, D. (2014). Virtual reality-based therapy for the treatment of balance deficits in patients receiving inpatient rehabilitation for traumatic brain injury. *Brain Injury*, 28(2), 181-188.

DOI / link	https://doi.org/10.3109/02699052.2013.860475 Tags: therapy/counseling, neuroscience/neuropsychology, rehabilitation
P - Population	Twenty adults receiving inpatient rehabilitation for traumatic brain injury with balance deficits.
I - Intervention / exposure	Nintendo Wii-based balance therapy monitored by a physical therapist.

Cuthbert, J. P., Staniszewski, K., Hays, K., Gerber, D., et al. (2014)

Virtual reality-based therapy for the treatment of balance deficits in patients receiving inpatient rehabilitation for traumatic brain injury

C - Comparator	One-on-one balance therapy using standard physical therapy modalities.
O - Outcomes	Static and dynamic balance, safety, feasibility, enjoyment, and Wii game performance.
S - Study design	Randomized controlled trial with blinded outcome assessment.

Source: VGTx research.pdf, p. 118 (source citation); source extraction p. 118

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** High – verified against publisher/PubMed abstract

Cuttillo et al. (2024)

Executive functions rehabilitation in premature children using an adaptive motion-interaction videogame platform Games for Health Journal.

Citation: Cuttillo et al. (2024). Executive functions rehabilitation in premature children using an adaptive motion-interaction videogame platform Games for Health Journal.

DOI / link	https://doi.org/10.1089/g4h.2023.0078 Tags: cognition/executive function, rehabilitation
P - Population	children
I - Intervention / exposure	Executive functions rehabilitation in premature children using an adaptive motion-interaction videogame platform
C - Comparator	Control/comparison condition NR in source summary
O - Outcomes	Cognition/executive function
S - Study design	Randomized controlled trial

Source: vgtx, p. 265 D

Metadata status: DOI paired with citation in source; metadata partially normalized | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

D | Alphabetical records

Dahlquist, L. M., Herbert, L. J., & Weiss, K. E. (1997)

Eliminating laboratory pain: The effect of video game distraction on acute pain response in children

Citation: Dahlquist, L. M., Herbert, L. J., & Weiss, K. E. (1997). Eliminating laboratory pain: The effect of video game distraction on acute pain response in children. Journal of Pediatric Psychology, 22, 651-661.

DOI / link	https://doi.org/10.1093/jpepsy/22.6.651 Tags: rehabilitation
P - Population	children
I - Intervention / exposure	Eliminating laboratory pain: The effect of video game distraction on acute pain response in children
C - Comparator	Not reported or not applicable
O - Outcomes	Outcome domain NR in source summary
S - Study design	Study design not fully reported in source summary

Source: VGTx research.pdf, p. 143 (source citation); source extraction p. 143

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Dale, G., & Green, C. S. (2017)

Associations between avid action and real-time strategy game play and cognitive performance: A pilot study

Citation: Dale, G., & Green, C. S. (2017). Associations between avid action and real-time strategy game play and cognitive performance: A pilot study. Journal/venue and DOI require confirmation.

DOI / link	Missing or incomplete - retained for manual Zotero follow-up Tags: cognition/executive function
P - Population	Not reported in source summary

Dale, G., & Green, C. S. (2017)**Associations between avid action and real-time strategy game play and cognitive performance: A pilot study**

I - Intervention / exposure	Associations between avid action and real-time strategy game play and cognitive performance: A pilot study
C - Comparator	Lower/no gaming exposure, alternate player groups, or modeled comparison
O - Outcomes	Cognition/executive function
S - Study design	Pilot or feasibility study

Source: VGTX research.pdf, p. 246; title metadata reconstructed from source shorthand**Metadata status:** Externally verified where stated; otherwise source citation retained for later Zotero confirmation | **PICOS confidence:** Provisional**Danielsen, P. A., Mentzoni, R. A., & Lag, T. (2024)****Treatment effects of therapeutic interventions for gaming disorder: A systematic review and meta-analysis Addictive Behaviors.****Citation:** Danielsen, P. A., Mentzoni, R. A., & Lag, T. (2024). Treatment effects of therapeutic interventions for gaming disorder: A systematic review and meta-analysis Addictive Behaviors.

DOI / link	https://doi.org/10.1016/j.addbeh.2023.107887 Tags: therapy/counseling, gaming disorder
P - Population	38 studies; 9,524 participants
I - Intervention / exposure	Therapeutic interventions for gaming disorder
C - Comparator	Control, waitlist, or alternative treatment conditions
O - Outcomes	Gaming-disorder severity and related clinical outcomes
S - Study design	Systematic review and meta-analysis

Source: vgtx, p. 263**Metadata status:** PubMed/publisher record verified online | **PICOS confidence:** Moderate to high - based on source summary and verified citation metadata**David, O. A., Cardoso, R., & Matu, S. (2019)****Is “REThink” therapeutic game effective in preventing emotional disorders in children and adolescents? Outcomes of a randomized clinical trial****Citation:** David, O. A., Cardoso, R., & Matu, S. (2019). Is “REThink” therapeutic game effective in preventing emotional disorders in children and adolescents? Outcomes of a randomized clinical trial. European Child & Adolescent Psychiatry, 28(1), 111-122.

DOI / link	https://doi.org/10.1007/s00787-018-1192-2 Tags: therapy/counseling, mood/emotion
P - Population	children
I - Intervention / exposure	Game-related exposure/intervention described in the article
C - Comparator	Control/comparison condition NR in source summary
O - Outcomes	Mood/emotion regulation, Clinical symptoms/functioning
S - Study design	Randomized controlled trial

Source: VGTX research.pdf, p. 114 (source citation); source extraction p. 114**Metadata status:** Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text**David, O. A., Predatu, R., & Cardoso, R. (2021)****Effectiveness of the REThink online video game in promoting mental health in children and adolescents****Citation:** David, O. A., Predatu, R., & Cardoso, R. (2021). Effectiveness of the REThink online video game in promoting mental health in children and adolescents. Internet Interventions, 25, 100391.

DOI / link	https://doi.org/10.1016/j.invent.2021.100391 Tags: mood/emotion
P - Population	children
I - Intervention / exposure	REThink online video game for children and adolescents: Randomized controlled trial
C - Comparator	controlled trial

David, O. A., Predatu, R., & Cardoso, R. (2021)**Effectiveness of the RETHink online video game in promoting mental health in children and adolescents**

O - Outcomes	Mood/emotion regulation
S - Study design	Randomized controlled trial

Source: VGTX research.pdf, p. 114 (source citation); source extraction p. 149

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate to high - based on source summary and verified citation metadata

De Gregorio, E., & De Laurentiis, I. (2026)**Videogames for academic wellbeing: A biopsychosocial health psychology framework for university counselling and mental health promotion**

Citation: De Gregorio, E., & De Laurentiis, I. (2026). Videogames for academic wellbeing: A biopsychosocial health psychology framework for university counselling and mental health promotion. *Frontiers in Psychology*, 17, 1935433.

DOI / link	https://doi.org/10.3389/fpsyg.2026.1935433 Tags: counseling, therapeutic gaming, university mental health, implementation
P - Population	University counseling-service context
I - Intervention / exposure	Structured incorporation of videogames into counseling/wellbeing programming
C - Comparator	None
O - Outcomes	Clinical rationale, implementation model, proposed evaluation framework
S - Study design	Community case study/program framework

Source: Frontiers in Psychology

Metadata status: Verified; no efficacy data | **PICOS confidence:** Moderate

De Jaegere, E., Van Heeringen, C., Emmery, P., Mommerency, G., & Portzky, G. (2024)**Effects of a serious game for adolescent mental health on cognitive vulnerability: Pilot usability study**

Citation: De Jaegere, E., Van Heeringen, C., Emmery, P., Mommerency, G., & Portzky, G. (2024). Effects of a serious game for adolescent mental health on cognitive vulnerability: Pilot usability study. *JMIR Serious Games*, 12, e54256.

DOI / link	https://doi.org/10.2196/54256 Tags: therapeutic/serious games, adolescent mental health, cognition/executive function
P - Population	Adolescents participating in pilot usability testing of a mental-health serious game.
I - Intervention / exposure	Serious-game activities designed to identify and address cognitive vulnerability and unhelpful thinking patterns.
C - Comparator	No active comparator; within-participant usability evaluation.
O - Outcomes	Usability, acceptability, engagement, and recognition of helpful and unhelpful thinking patterns.
S - Study design	Pilot usability study using quantitative and qualitative feedback.

Source: Researcher-approved source abstract/summary and citation metadata.

Metadata status: Researcher-confirmed citation and DOI | **PICOS confidence:** High - PICOS confirmed from the approved abstract/summary

Dengah, H. J. F., II, & Snodgrass, J. G. (2020)**Avatar creation in videogaming: Between compensation and constraint**

Citation: Dengah, H. J. F., II, & Snodgrass, J. G. (2020). Avatar creation in videogaming: Between compensation and constraint. *Games for Health Journal*, 9(4), 265–272.

DOI / link	https://doi.org/10.1089/g4h.2019.0118 Tags: social/identity, motivation/player experience
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P - Population	Video-game players who created or selected avatars.
I - Intervention / exposure	Avatar creation and customization in relation to actual, ideal, and socially constrained identities.
C - Comparator	Comparisons between player and avatar characteristics and across identity or self-discrepancy patterns.
O - Outcomes	Identity expression, compensation, constraint, self-concept, and psychosocial associations.
S - Study design	Observational study of avatar creation and player identity.
Source: Researcher-approved source abstract/summary and citation metadata. Metadata status: Researcher-confirmed citation and DOI PICOS confidence: Moderate to high - adapted PICOS confirmed from the approved abstract/summary	

de Rooij, S. T., Kuipers, D. A., Prins, J. T., & Pierie, J. P. E. N. (2026) Research design processes in serious games for adolescent mental health: Systematic review	
Citation: de Rooij, S. T., Kuipers, D. A., Prins, J. T., & Pierie, J. P. E. N. (2026). Research design processes in serious games for adolescent mental health: Systematic review. JMIR Serious Games, 14, e77173.	
DOI / link	https://doi.org/10.2196/77173 Tags: therapeutic/serious games, adolescent mental health, game design
P - Population	Studies describing serious games developed or evaluated for adolescent mental health.
I - Intervention / exposure	Serious-game research and design processes, including design rationales, models of reality, transfer, and stakeholder involvement.
C - Comparator	Comparisons across design approaches and study processes; no clinical comparator.
O - Outcomes	How design processes, transfer to real-life contexts, and interdisciplinary practices are reported and evaluated.
S - Study design	Systematic review.
Source: Researcher-approved source abstract/summary and citation metadata. Metadata status: Researcher-confirmed citation and DOI PICOS confidence: High - adapted PICOS confirmed from the approved systematic-review abstract	

Del Percio, C., Lizio, R., De Bartolo, M., Carpi, M., Noce, G., Lopez, S., Afragola, A. P., Fiorentino, F., Carducci, F., Henao Isaza, V., Barone, P., Cappiello, A., Di Filippo, F., Riemma, D., Costanzo, G., Cauzzo, S., Fiorenzato, E., Vianello, F., Stocchi, F., . . . Babiloni, C. (2026) Performance of the SmartMe&You serious video games for home telemonitoring is related to cognitive status and resting-state electroencephalographic markers in healthy and Parkinson's disease participants	
Citation: Del Percio, C., Lizio, R., De Bartolo, M., Carpi, M., Noce, G., Lopez, S., Afragola, A. P., Fiorentino, F., Carducci, F., Henao Isaza, V., Barone, P., Cappiello, A., Di Filippo, F., Riemma, D., Costanzo, G., Cauzzo, S., Fiorenzato, E., Vianello, F., Stocchi, F., . . . Babiloni, C. (2026). Performance of the SmartMe&You serious video games for home telemonitoring is related to cognitive status and resting-state electroencephalographic markers in healthy and Parkinson's disease participants. GeroScience. Advance online publication.	
DOI / link	https://doi.org/10.1007/s11357-026-02417-2 Tags: serious games, cognition, Parkinson's disease, EEG, assessment
P - Population	34 cognitively healthy older adults and 68 participants with Parkinson's-related cognitive impairment/dementia
I - Intervention / exposure	Performance across seven SmartMe&You cognitive games
C - Comparator	Healthy versus Parkinson's cognitive-status groups
O - Outcomes	Game accuracy, MMSE, resting-state EEG markers
S - Study design	Cross-sectional diagnostic/association study

Source: GeroScience
 Metadata status: Verified | PICOS confidence: High

De Rosa, O., et al. (2025)

The impact of an action commercial video game on adult non-gamers psychological well-being, cognitive functioning, and sleep Sleep Medicine, 129, 274-282.

Citation: De Rosa, O., et al. (2025). The impact of an action commercial video game on adult non-gamers psychological well-being, cognitive functioning, and sleep Sleep Medicine, 129, 274-282.

DOI / link	https://doi.org/10.1016/j.sleep.2025.03.002 Tags: mood/emotion, cognition/executive function
P - Population	Adult non-gamers
I - Intervention / exposure	Commercial action-video-game exposure
C - Comparator	Television-viewing condition and baseline
O - Outcomes	Stress, psychological well-being, visuospatial working memory, sleep
S - Study design	Controlled intervention study

Source: vgtx, p. 262

Metadata status: PubMed/publisher record verified online | PICOS confidence: Moderate to high - based on source summary and verified citation metadata

Desai, V. R., Gupta, I., & Venkatesh, S. (2021)

Stress-reducing effects of playing a casual video game: A randomized controlled trial

Citation: Desai, V. R., Gupta, I., & Venkatesh, S. (2021). Stress-reducing effects of playing a casual video game: A randomized controlled trial. Discover Psychology, 1(1), 1-12.

DOI / link	https://doi.org/10.1007/s43076-021-00062-6 Tags: mood/emotion
P - Population	Not reported in source summary
I - Intervention / exposure	Stress-reducing effects of playing a casual video game: A randomized controlled trial
C - Comparator	controlled trial
O - Outcomes	Mood/emotion regulation
S - Study design	Randomized controlled trial

Source: VGTx research.pdf, p. 203 (source citation); source extraction p. 203

Metadata status: Source citation checked; DOI source-matched | PICOS confidence: Moderate - provisional PICOS; confirm against full text

Dewhirst, A., Laugharne, R., & Shankar, R. (2022)

Therapeutic use of serious games in mental health: Scoping review

Citation: Dewhirst, A., Laugharne, R., & Shankar, R. (2022). Therapeutic use of serious games in mental health: Scoping review. BJPsych Open, 8(2), e37.

DOI / link	https://doi.org/10.1192/bjo.2022.4 Tags: therapy/counseling, therapeutic/serious games
P - Population	Studies and participant populations included in the review
I - Intervention / exposure	Therapeutic use of serious games in mental health: Scoping review
C - Comparator	Varied comparators across included studies
O - Outcomes	Clinical symptoms/functioning
S - Study design	Scoping review

Source: VGTx research.pdf, p. 122 (source citation); source extraction p. 122

Metadata status: Source citation checked; DOI source-matched | PICOS confidence: Moderate - provisional PICOS; confirm against full text

Di Blasi, M., Giardina, A., Giordano, C., Lo Coco, G., Tosto, C., Billieux, J., & Schimmenti, A. (2019)
Problematic Video Game Use as an Emotional Coping Strategy: Evidence From a Sample of MMORPG Gamers

Citation: Di Blasi, M., Giardina, A., Giordano, C., Lo Coco, G., Tosto, C., Billieux, J., & Schimmenti, A. (2019). Problematic Video Game Use as an Emotional Coping Strategy: Evidence From a Sample of MMORPG Gamers. *Journal of Behavioral Addictions*, 8(1), 25–34.
<https://doi.org/10.1556/2006.8.2019.02>

DOI / link	https://doi.org/10.1556/2006.8.2019.02 Tags: gaming disorder/problematic play, mood/emotion/mental health
P - Population	390 World of Warcraft players
I - Intervention / exposure	Emotion dysregulation, escapism motives, and problematic gaming involvement
C - Comparator	N/A; mediation paths among measured variables
O - Outcomes	Problematic gaming and escapism as an emotional coping strategy
S - Study design	Cross-sectional structural equation modeling study

Source: VGTX research.pdf, p. 260

Metadata status: Web verified – PubMed/PMC | **PICOS confidence:** High - metadata, sample, and core analysis verified against PubMed/full text

Dias, E. G., et al. (2020)
A mobile game for Parkinson's disease screening: Analysis of game metrics and clinical data

Citation: Dias, E. G., et al. (2020). A mobile game for Parkinson's disease screening: Analysis of game metrics and clinical data. *IEEE Journal of Biomedical and Health Informatics*, 24(12), 3536-3545.

DOI / link	https://doi.org/10.1109/jbhi.2020.3008205 Tags: cognition/executive function, neuroscience/neuropsychology
P - Population	Not reported in source summary
I - Intervention / exposure	Game-related exposure/intervention described in the article
C - Comparator	Not reported or not applicable
O - Outcomes	Clinical symptoms/functioning, Cognition/executive function, Behavior/engagement
S - Study design	Study design not fully reported in source summary

Source: VGTX research.pdf, p. 116 (source citation); source extraction p. 116

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Dominick, J. R. (1984)
Videogames, television violence, and aggression in teenagers

Citation: Dominick, J. R. (1984). Videogames, television violence, and aggression in teenagers. *Journal of Communication*, 34(2), 136-147.

DOI / link	https://doi.org/10.1111/j.1460-2466.1984.tb02165.x Tags: mood/emotion
P - Population	Not reported in source summary
I - Intervention / exposure	Videogames, television violence, and aggression in teenagers
C - Comparator	Not reported or not applicable
O - Outcomes	Mood/emotion regulation, Behavior/engagement
S - Study design	Study design not fully reported in source summary

Source: VGTX research.pdf, p. 216 (source citation); source extraction p. 216

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Ducharme, P., Kahn, J., Gusman, M., et al. (2021)
A “proof of concept” randomized controlled trial of a video game requiring emotional regulation to augment anger control training

Citation: Ducharme, P., Kahn, J., Gusman, M., et al. (2021). A “proof of concept” randomized controlled trial of a video game requiring emotional regulation to augment anger control training. *Frontiers in Psychiatry*, 12, 591906. PubMed Central.

DOI / link	https://doi.org/10.3389/fpsy.2021.591906 Tags: mood/emotion
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Ducharme, P., Kahn, J., Gusman, M., et al. (2021)

A “proof of concept” randomized controlled trial of a video game requiring emotional regulation to augment anger control training

P - Population	Not reported in source summary
I - Intervention / exposure	A "proof of concept" randomized controlled trial of a video game requiring emotional regulation to augment anger control training
C - Comparator	controlled trial of a video game requiring emotional regulation to augment anger control training
O - Outcomes	Mood/emotion regulation
S - Study design	Randomized controlled trial

Source: VGTX research.pdf, p. 137 (source citation); source extraction p. 137

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Duta, T. F., Tsurayya, G., & Naufal, M. A. (2023)

Exergame for post-stroke rehabilitation among elderly patients: A systematic review and meta-analysis

Citation: Duta, T. F., Tsurayya, G., & Naufal, M. A. (2023). Exergame for post-stroke rehabilitation among elderly patients: A systematic review and meta-analysis. Narra X, 1(1), e73.

DOI / link	https://doi.org/10.52225/narrax.v1i1.73 Tags: rehabilitation, older adults, cognition/executive function
P - Population	Older adults receiving post-stroke rehabilitation in the included studies.
I - Intervention / exposure	Exergame-based rehabilitation.
C - Comparator	Conventional rehabilitation, usual care, or non-exergame control conditions.
O - Outcomes	Cognitive and functional rehabilitation outcomes, including global cognition and physical performance.
S - Study design	Systematic review and meta-analysis.

Source: Researcher-approved source abstract/summary and citation metadata.

Metadata status: Researcher-confirmed citation and DOI | **PICOS confidence:** High - PICOS confirmed from the approved review abstract/summary

Dutta, S., Oksanen, J., Väkevä, J., Ahmed, S., Kirjonen, M., & Hämäläinen, P. (2026)

Mining player experience trends from game reviews using large language models

Citation: Dutta, S., Oksanen, J., Väkevä, J., Ahmed, S., Kirjonen, M., & Hämäläinen, P. (2026). Mining player experience trends from game reviews using large language models. Proceedings of the 2026 CHI Conference on Human Factors in Computing Systems, Article 453.

DOI / link	https://doi.org/10.1145/3772318.3790760 Tags: player experience, emotion, meaning, nostalgia, computational psychology
P - Population	152,143 Metacritic user reviews
I - Intervention / exposure	Player-experience language in game reviews
C - Comparator	Games, genres, historical periods
O - Outcomes	Emotional challenge, meaning, nostalgia and other player-experience constructs
S - Study design	Large-scale computational text analysis

Source: ACM CHI 2026

Metadata status: Verified | **PICOS confidence:** High

E | Alphabetical records

Eckardt, J. P (2024)

Therapeutic uses of gaming in mental health: An untapped potential [Letter] JMIR Serious Games, 12, e57714.

Citation: Eckardt, J. P (2024). Therapeutic uses of gaming in mental health: An untapped potential [Letter] JMIR Serious Games, 12, e57714.

DOI / link	https://doi.org/10.2196/57714 Tags: therapy/counseling, therapeutic/serious games
P - Population	Not reported in source summary
I - Intervention / exposure	Therapeutic uses of gaming in mental health: An untapped potential [Letter]
C - Comparator	Not reported or not applicable
O - Outcomes	Clinical symptoms/functioning
S - Study design	Study design not fully reported in source summary

Source: vgtx, p. 151

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Egami, H., Rahman, M. S., Yamamoto, T., Egami, C., Wakabayashi, T., et al. (2024)

Causal effect of video gaming on mental well-being in Japan 2020-2022 Nature Human Behaviour, 8, 1943-1956.

Citation: Egami, H., Rahman, M. S., Yamamoto, T., Egami, C., Wakabayashi, T., et al. (2024). Causal effect of video gaming on mental well-being in Japan 2020-2022 Nature Human Behaviour, 8, 1943-1956.

DOI / link	https://doi.org/10.1038/s41562-024-01948-y Tags: mood/emotion, measurement/methods
P - Population	97,602 Japanese respondents aged 10-69; 8,192 console-lottery participants
I - Intervention / exposure	Console ownership and increased video-game play following Switch/PS5 lotteries
C - Comparator	Lottery non-winners and lower exposure
O - Outcomes	Psychological distress (K6) and life satisfaction (SWLS)
S - Study design	Natural experiment with causal-inference analyses

Source: vgtx, p. 262

Metadata status: Publisher record verified online | **PICOS confidence:** Moderate to high - based on source summary and verified citation metadata

Eldridge, M., et al (2022)

The effectiveness of gaming interventions for depression and anxiety in young people: A systematic review and meta-analysis BJPsych Open, 8, e32.

Citation: Eldridge, M., et al (2022). The effectiveness of gaming interventions for depression and anxiety in young people: A systematic review and meta-analysis BJPsych Open, 8, e32.

DOI / link	https://doi.org/10.1192/bjo.2021.1078 Tags: therapeutic/serious games, mood/emotion
P - Population	Studies and participant populations included in the review
I - Intervention / exposure	The effectiveness of gaming interventions for depression and anxiety in young people: A systematic review and meta-analysis
C - Comparator	Varied comparators across included studies
O - Outcomes	Mood/emotion regulation, Clinical symptoms/functioning
S - Study design	Systematic review and meta-analysis

Source: vgtx, p. 149

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Estupina, F. J., et al. (2024)**Emotional regulation in Gaming Disorder: A systematic review** *The American Journal on Addictions*, 33(6), 605-620.Citation: Estupina, F. J., et al. (2024). Emotional regulation in Gaming Disorder: A systematic review *The American Journal on Addictions*, 33(6), 605-620.

DOI / link	https://doi.org/10.1111/ajad.13621 Tags: mood/emotion, gaming disorder
P - Population	Populations represented in 18 included studies
I - Intervention / exposure	Gaming disorder/problematic gaming and emotion-regulation processes
C - Comparator	Nonproblematic or lower-risk gaming groups where available
O - Outcomes	Emotion dysregulation, suppression, escapism, psychopathology, and gaming-disorder severity
S - Study design	Systematic review

Source: vgtx, p. 263 F

Metadata status: PubMed/publisher record verified online | PICOS confidence: Moderate to high - based on source summary and verified citation metadata

Evans, S. W., Beauchaine, T. P., Chronis-Tuscano, A., Becker, S. P., Chacko, A., Gallagher, R., ... & Tamm, L. (2021)**The efficacy of cognitive videogame training for ADHD and what FDA clearance means for clinicians**Citation: Evans, S. W., Beauchaine, T. P., Chronis-Tuscano, A., Becker, S. P., Chacko, A., Gallagher, R., ... & Tamm, L. (2021). The efficacy of cognitive videogame training for ADHD and what FDA clearance means for clinicians. *Evidence-Based Practice in Child & Adolescent Mental Health*, 6(1), 116-130.

DOI / link	https://doi.org/10.1080/23794925.2020.1859960 Tags: cognition/executive function
P - Population	Children and/or adolescents
I - Intervention / exposure	The efficacy of cognitive videogame training for ADHD and what FDA clearance means for clinicians
C - Comparator	Not reported or not applicable
O - Outcomes	Cognition/executive function
S - Study design	Study design not fully reported in source summary

Source: VGTx research.pdf, p. 109

Metadata status: Source citation captured; DOI resolution not independently confirmed unless noted | PICOS confidence: Provisional

F | Alphabetical records

Fagundo, A. B., Via, E., Sanchez, I., Jiménez-Murcia, S., et al. (2014)**Physiological and brain activity after a combined CBT plus video game therapy for emotional regulation in bulimia nervosa: A case report**Citation: Fagundo, A. B., Via, E., Sanchez, I., Jiménez-Murcia, S., et al. (2014). Physiological and brain activity after a combined CBT plus video game therapy for emotional regulation in bulimia nervosa: A case report. *Journal of Medical Internet Research*, 16(8), e183.

DOI / link	https://doi.org/10.2196/jmir.3243 Tags: therapy/counseling, mood/emotion, cognition/executive function, neuroscience/neuropsychology
P - Population	One treatment-seeking patient with bulimia nervosa
I - Intervention / exposure	CBT plus video game therapy for emotion regulation
C - Comparator	Pre/post within-case comparison
O - Outcomes	Emotional regulation, physiological activity, brain activity, eating-disorder symptoms
S - Study design	Clinical case report

Source: VGTx research.pdf, p. 117 (source citation); source extraction p. 118

Metadata status: PubMed/JMIR record verified | PICOS confidence: Moderate to high - based on source summary and verified citation metadata

Farber, M., & Schrier, K. (2017)**The Strengths and Limitations of Using Digital Games as “Empathy Machines”**

Citation: Farber, M., & Schrier, K. (2017). The Strengths and Limitations of Using Digital Games as “Empathy Machines”. UNESCO MGIEP working paper. <https://unesdoc.unesco.org/ark:/48223/pf0000261993>

DOI / link	https://unesdoc.unesco.org/ark:/48223/pf0000261993 Tags: empathy, games, review, working paper
P - Population	Literature and game examples considered in the working paper
I - Intervention / exposure	Digital games used to foster empathy
C - Comparator	N/A
O - Outcomes	Empathy, perspective-taking, strengths, limitations, and design considerations
S - Study design	Scholarly working paper / review

Source: Kat Schrier CV with publications (2024), pp. 1–5; user-requested contemporary author coverage patch

Metadata status: Added directly from the supplied CV. DOI or stable URL included only when stated in the CV; missing identifiers retained for Zotero follow-up. | **PICOS confidence:** High for citation and stable URL from CV

Favelle, G. K. (1995)**Therapeutic applications of commercially available computer software**

Citation: Favelle, G. K. (1995). Therapeutic applications of commercially available computer software. Computers in Human Services, 11(1-2), 151-158.

DOI / link	Missing or incomplete - retained for manual Zotero follow-up Tags: therapy/counseling
P - Population	Not reported in source summary
I - Intervention / exposure	Therapeutic applications of commercially available computer software
C - Comparator	Not reported or not applicable
O - Outcomes	Psychological, behavioral, cognitive, or clinical outcomes reported in the article
S - Study design	Study design not fully reported in source summary

Source: VGTX research.pdf, p. 107

Metadata status: Externally verified where stated; otherwise source citation retained for later Zotero confirmation | **PICOS confidence:** Provisional

Ferchaud, A., Seibert, J., Sellers, N., & Escobar Salazar, N. (2020)**Reducing Mental Health Stigma Through Identification With Video Game Avatars With Mental Illness**

Citation: Ferchaud, A., Seibert, J., Sellers, N., & Escobar Salazar, N. (2020). Reducing Mental Health Stigma Through Identification With Video Game Avatars With Mental Illness. Frontiers in Psychology, 11, 2240. <https://doi.org/10.3389/fpsyg.2020.02240>

DOI / link	https://doi.org/10.3389/fpsyg.2020.02240 Tags: mood/emotion/mental health, stigma, commercial games
P - Population	Participants assigned to play or watch Hellblade: Senua's Sacrifice
I - Intervention / exposure	45 minutes of interactive gameplay featuring a protagonist with psychosis
C - Comparator	Watching yoked gameplay footage
O - Outcomes	Transportation, character identification, stereotyping, and desired social distance from people with mental illness
S - Study design	Two-condition yoked experiment with structural equation modeling

Source: VGTX research.pdf, p. 187

Metadata status: Web verified – Frontiers/PubMed | **PICOS confidence:** High - citation and core PICOS verified against Frontiers/PubMed

Ferguson, C. J., & Rueda, S. M. (2010)**The Hitman study: Violent video game exposure effects on aggressive behavior, hostile feelings, and depression**

Citation: Ferguson, C. J., & Rueda, S. M. (2010). The Hitman study: Violent video game exposure effects on aggressive behavior, hostile feelings, and depression. European Psychologist, 15(2), 99-108.

DOI / link	https://doi.org/10.1027/1016-9040/a000010 Tags: mood/emotion
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Ferguson, C. J., & Rueda, S. M. (2010)**The Hitman study: Violent video game exposure effects on aggressive behavior, hostile feelings, and depression**

P - Population	People with depression/depressive symptoms or included depression studies
I - Intervention / exposure	The Hitman study: Violent video game exposure effects on aggressive behavior, hostile feelings, and depression
C - Comparator	Not reported or not applicable
O - Outcomes	Mood/emotion regulation, Behavior/engagement
S - Study design	Study design not fully reported in source summary

Source: VGTX research.pdf, p. 209 (source citation); source extraction p. 209

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Ferguson, C. J. (2015)**Do Angry Birds Make for Angry Children? A Meta-Analysis of Video Game Influences on Children's and Adolescents' Aggression, Mental Health, Prosocial Behavior, and Academic Performance**

Citation: Ferguson, C. J. (2015). Do Angry Birds Make for Angry Children? A Meta-Analysis of Video Game Influences on Children's and Adolescents' Aggression, Mental Health, Prosocial Behavior, and Academic Performance. *Perspectives on Psychological Science*, 10(5), 646–666. <https://doi.org/10.1177/1745691615592234>

DOI / link	https://doi.org/10.1177/1745691615592234 Tags: mood/emotion/mental health
P - Population	Studies of children and adolescents included in the meta-analysis
I - Intervention / exposure	Video-game use/content
C - Comparator	Lower/no exposure or alternative content as defined in included studies
O - Outcomes	Aggression, mental health, prosocial behavior, and academic performance
S - Study design	Meta-analysis

Source: VGTX research p247-247

Metadata status: Web verified – publisher/DOI; Direct meta-analysis; missing from current draft. | **PICOS confidence:** High for scope and citation; verify inclusion details in full text

Ferrari, M., Sabetti, J., McIlwaine, S. V., Fazeli, S., Sadati, S. M. H., Shah, J. L., ... & Iyer, S. N. (2022)**Gaming my way to recovery: A systematic scoping review of digital game interventions for young people's mental health treatment and promotion**

Citation: Ferrari, M., Sabetti, J., McIlwaine, S. V., Fazeli, S., Sadati, S. M. H., Shah, J. L., ... & Iyer, S. N. (2022). Gaming my way to recovery: A systematic scoping review of digital game interventions for young people's mental health treatment and promotion. *Frontiers in Digital Health*, 4, 814248.

DOI / link	https://doi.org/10.3389/fdgth.2022.814248 Tags: therapy/counseling
P - Population	Studies and participant populations included in the review
I - Intervention / exposure	Gaming my way to recovery: A systematic scoping review of digital game interventions for young people's mental health treatment and promotion
C - Comparator	Varied comparators across included studies
O - Outcomes	Clinical symptoms/functioning
S - Study design	Scoping review

Source: VGTX research.pdf, p. 121 (source citation); source extraction p. 121

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Fleming, T., Dixon, R., Frampton, C., & Merry, S. (2012)**A pragmatic randomized controlled trial of computerized CBT (SPARX) for symptoms of depression among adolescents excluded from mainstream education**

Citation: Fleming, T., Dixon, R., Frampton, C., & Merry, S. (2012). A pragmatic randomized controlled trial of computerized CBT (SPARX) for symptoms of depression among adolescents excluded from mainstream education. *Behavioural and Cognitive Psychotherapy*, 40(5), 529-541.

Fleming, T., Dixon, R., Frampton, C., & Merry, S. (2012)

A pragmatic randomized controlled trial of computerized CBT (SPARX) for symptoms of depression among adolescents excluded from mainstream education

DOI / link	https://doi.org/10.1017/s1352465811000695 Tags: therapy/counseling, mood/emotion, cognition/executive function
P - Population	adolescents
I - Intervention / exposure	Game-related exposure/intervention described in the article
C - Comparator	controlled trial of computerized CBT (SPARX) for symptoms of depression among adolescents excluded from mainstream education
O - Outcomes	Mood/emotion regulation, Clinical symptoms/functioning, Cognition/executive function
S - Study design	Randomized controlled trial

Source: VGTx research.pdf, p. 114 (source citation); source extraction p. 114

Metadata status: Source citation checked; DOI source-matched | PICOS confidence: Moderate to high - based on source summary and verified citation metadata

Fleming, T. M., de Beurs, D., Khazaal, Y., Gaggioli, A., Riva, G., & Botella, C., et al. (2016)

Maximizing the impact of e-therapy and serious gaming: Time for a paradigm shift

Citation: Fleming, T. M., de Beurs, D., Khazaal, Y., Gaggioli, A., Riva, G., & Botella, C., et al. (2016). Maximizing the impact of e-therapy and serious gaming: Time for a paradigm shift. *Frontiers in Psychiatry*, 7, 65.

DOI / link	https://doi.org/10.3389/fpsyt.2016.00065 Tags: therapy/counseling
P - Population	Not reported in source summary
I - Intervention / exposure	Maximizing the impact of e-therapy and serious gaming: Time for a paradigm shift
C - Comparator	Not reported or not applicable
O - Outcomes	Clinical symptoms/functioning
S - Study design	Study design not fully reported in source summary

Source: VGTx research.pdf, p. 121 (source citation); source extraction p. 121

Metadata status: Source citation checked; DOI source-matched | PICOS confidence: Moderate - provisional PICOS; confirm against full text

Fleming, T. M., Bavin, L., Stasiak, K., Hermansson-Webb, E., Merry, S. N., Cheek, C., ... & Manji, K. (2017)

Serious games and gamification for mental health: Current status and promising directions

Citation: Fleming, T. M., Bavin, L., Stasiak, K., Hermansson-Webb, E., Merry, S. N., Cheek, C., ... & Manji, K. (2017). Serious games and gamification for mental health: Current status and promising directions. *Frontiers in Psychiatry*, 7, 215.

DOI / link	https://doi.org/10.3389/fpsyt.2016.00215 Tags: therapeutic/serious games
P - Population	Not reported in source summary
I - Intervention / exposure	Serious games and gamification for mental health: Current status and promising directions
C - Comparator	Not reported or not applicable
O - Outcomes	Outcome domain NR in source summary
S - Study design	Study design not fully reported in source summary

Source: VGTx research.pdf, p. 109 (source citation); source extraction p. 139

Metadata status: Source citation checked; DOI source-matched | PICOS confidence: Moderate - provisional PICOS; confirm against full text

Fordham, J., & Ball, C. (2019)

Framing Mental Health Within Digital Games: An Exploratory Case Study of Hellblade

Citation: Fordham, J., & Ball, C. (2019). Framing Mental Health Within Digital Games: An Exploratory Case Study of Hellblade. *JMIR Mental Health*, 6(4), e12432. <https://doi.org/10.2196/12432>

DOI / link	https://doi.org/10.2196/12432 Tags: mood/emotion/mental health, stigma, commercial games
P - Population	The commercial game Hellblade: Senua's Sacrifice and its development context

Fordham, J., & Ball, C. (2019)**Framing Mental Health Within Digital Games: An Exploratory Case Study of Hellblade**

I - Intervention / exposure	Research-informed depiction of psychosis through game narrative, mechanics, and design
C - Comparator	N/A
O - Outcomes	Interpretive findings concerning mental-health framing, empathy, stigma, and collaborative design
S - Study design	Exploratory qualitative case study using frame analysis

Source: VGTx research.pdf, p. 186

Metadata status: Web verified – JMIR/PubMed | PICOS confidence: High - citation, design, and conclusions verified against JMIR/PubMed

Forgiarini, A., Buttussi, F., & Chittaro, L. (2026)**Enhancing spatial memory with a serious game: VR headset versus smartphone setups**

Citation: Forgiarini, A., Buttussi, F., & Chittaro, L. (2026). Enhancing spatial memory with a serious game: VR headset versus smartphone setups. Virtual Reality. Advance online publication.

DOI / link	https://doi.org/10.1007/s10055-026-01470-8 Tags: serious game, spatial memory, cognition, VR
P - Population	45 adults
I - Intervention / exposure	Immersive-VR spatial-memory serious game
C - Comparator	Smartphone version
O - Outcomes	Spatial-memory performance, presence, usability
S - Study design	Comparative experimental study

Source: Virtual Reality

Metadata status: Verified | PICOS confidence: High

Formosa, J., et al. (2022)**Need satisfaction, passion and wellbeing effects of videogame play**

Citation: Formosa, J., et al. (2022). Need satisfaction, passion and wellbeing effects of videogame play. Media Psychology, 25(1), 1-29.

DOI / link	https://doi.org/10.1080/15213269.2020.1829412 Tags: mood/emotion
P - Population	Not reported in source summary
I - Intervention / exposure	Need satisfaction, passion and wellbeing effects of videogame play
C - Comparator	Not reported or not applicable
O - Outcomes	Mood/emotion regulation
S - Study design	Study design not fully reported in source summary

Source: VGTx research.pdf, p. 203 (source citation); source extraction p. 203

Metadata status: Source citation checked; DOI source-matched | PICOS confidence: Moderate - provisional PICOS; confirm against full text

Formosa, J., et al. (2025)**A qualitative exploration on the role of videogames during difficult times: An emotion regulation perspective Proceedings of the ACM on Human-Computer Interaction.**

Citation: Formosa, J., et al. (2025). A qualitative exploration on the role of videogames during difficult times: An emotion regulation perspective Proceedings of the ACM on Human-Computer Interaction.

DOI / link	https://doi.org/10.1145/3748628 Tags: mood/emotion
P - Population	28 video-game players
I - Intervention / exposure	Video-game use during difficult life periods
C - Comparator	N/A

Formosa, J., et al. (2025)**A qualitative exploration on the role of videogames during difficult times: An emotion regulation perspective Proceedings of the ACM on Human-Computer Interaction.**

O - Outcomes	Coping, escapism, emotion regulation, psychological needs, and well-being
S - Study design	Qualitative interview study

Source: vgtx, p. 262 G

Metadata status: ACM/index record verified online | PICOS confidence: Moderate - based on source summary

G | Alphabetical records

Gaetan, S., Brejard, V., & Bonnet, A. (2016)**Video games: A potential therapy for emotional regulation in children with autism spectrum disorders? Frontiers in Psychology, 7, 2026.**

Citation: Gaetan, S., Brejard, V., & Bonnet, A. (2016). Video games: A potential therapy for emotional regulation in children with autism spectrum disorders? Frontiers in Psychology, 7, 2026.

DOI / link	https://doi.org/10.3389/fpsyg.2016.02026 Tags: therapy/counseling, mood/emotion
P - Population	Children with autism spectrum disorders
I - Intervention / exposure	Video-game play considered as an emotion-regulation intervention or context
C - Comparator	controlled environment to practice coping skills
O - Outcomes	Emotion regulation and related behavioral outcomes
S - Study design	Study design not fully reported in source summary

Source: VGTX research.pdf, p. 211 (source citation); source extraction p. 211

Metadata status: Source citation checked; DOI source-matched | PICOS confidence: Moderate to high - based on source summary and verified citation metadata

Gallou-Guyot, M., Nuic, D., Mandigout, S., Compagnat, M., Welter, M. L., Daviet, J. C., & Perrochon, A. (2022)
Effectiveness of Home-Based Rehabilitation Using Active Video Games on Quality of Life, Cognitive and Motor Functions in People with Parkinson's Disease: A Systematic Review

Citation: Gallou-Guyot, M., Nuic, D., Mandigout, S., Compagnat, M., Welter, M. L., Daviet, J. C., & Perrochon, A. (2022). Effectiveness of Home-Based Rehabilitation Using Active Video Games on Quality of Life, Cognitive and Motor Functions in People with Parkinson's Disease: A Systematic Review. Disability and Rehabilitation, 44(26), 8222-8233.

DOI / link	https://doi.org/10.1080/09638288.2021.2022780 Tags: cognition/executive function, rehabilitation
P - Population	Studies and participant populations included in the review
I - Intervention / exposure	Effectiveness of Home-Based Rehabilitation Using Active Video Games on Quality of Life, Cognitive and Motor Functions in People with Parkinson's Disease: A Systematic Review
C - Comparator	Varied comparators across included studies
O - Outcomes	Cognition/executive function
S - Study design	Systematic review

Source: VGTX research.pdf, p. 125 (source citation); source extraction p. 125

Metadata status: Source citation checked; DOI source-matched | PICOS confidence: Moderate - provisional PICOS; confirm against full text

Gao, et al. (2026)**Effects of video game-based interventions on executive functions and motor skills in children and adolescents with neurodevelopmental disorders: A systematic review and meta-analysis Frontiers in Rehabilitation Sciences, 7, 1742526.**

Citation: Gao, et al. (2026). Effects of video game-based interventions on executive functions and motor skills in children and adolescents with neurodevelopmental disorders: A systematic review and meta-analysis Frontiers in Rehabilitation Sciences, 7, 1742526.

DOI / link	https://doi.org/10.3389/fresc.2026.1742526 Tags: therapeutic/serious games, cognition/executive function, neuroscience/neuropsychology, rehabilitation
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Gao, et al. (2026)

Effects of video game-based interventions on executive functions and motor skills in children and adolescents with neurodevelopmental disorders: A systematic review and meta-analysis *Frontiers in Rehabilitation Sciences*, 7, 1742526.

P - Population	Children and adolescents with neurodevelopmental disorders
I - Intervention / exposure	Video game-based interventions
C - Comparator	Control or alternative interventions
O - Outcomes	Inhibitory control, cognitive flexibility, working memory, and motor skills
S - Study design	Systematic review and meta-analysis

Source: vgtx, p. 266

Metadata status: PubMed/publisher record verified online | PICOS confidence: Moderate to high - based on source summary and verified citation metadata

Gao, T., Song, Q., Xie, X., He, J., Peng, X., Huang, J., Chen, H., & Wang, C. (2026)

Effects of game interactivity on perceived emotional challenge, mixed-affect emotional experiences and physiological responses

Citation: Gao, T., Song, Q., Xie, X., He, J., Peng, X., Huang, J., Chen, H., & Wang, C. (2026). Effects of game interactivity on perceived emotional challenge, mixed-affect emotional experiences and physiological responses. *Frontiers in Psychology*, 17, 1807290.

DOI / link	https://doi.org/10.3389/fpsyg.2026.1807290 Tags: emotion, physiology, interactivity, player experience, identification
P - Population	28 experienced 3D-game players
I - Intervention / exposure	Active play of an emotionally challenging Fallout 4 sequence
C - Comparator	Watching an identical gameplay recording
O - Outcomes	Emotional challenge, mixed affect, involvement, identification, immersion, physiological responses
S - Study design	Between-subjects experiment

Source: Frontiers in Psychology

Metadata status: Verified | PICOS confidence: High

Gardner, J. E. (1991)

Can the Mario Bros. help? Nintendo games as an adjunct in psychotherapy with children

Citation: Gardner, J. E. (1991). Can the Mario Bros. help? Nintendo games as an adjunct in psychotherapy with children. *Psychotherapy*, 28(4), 667-670. APA PsycArticles.

DOI / link	https://doi.org/10.1037/0033-3204.28.4.667 Tags: therapy/counseling
P - Population	children
I - Intervention / exposure	Game-related exposure/intervention described in the article
C - Comparator	Not reported or not applicable
O - Outcomes	Clinical symptoms/functioning
S - Study design	Study design not fully reported in source summary

Source: VGTX research.pdf, p. 135 (source citation); source extraction p. 135

Metadata status: Source citation checked; DOI source-matched | PICOS confidence: Moderate to high - based on source summary and verified citation metadata

Gentile, D. A., Anderson, C. A., Yukawa, S., Ihori, N., Saleem, M., Ming, L. K., Shibuya, A., Liau, A. K., Khoo, A., Bushman, B. J., Huesmann, L. R., & Sakamoto, A. (2009)

The effects of prosocial video games on prosocial behaviors: International evidence from correlational, longitudinal, and experimental studies

Citation: Gentile, D. A., Anderson, C. A., Yukawa, S., Ithori, N., Saleem, M., Ming, L. K., Shibuya, A., Liao, A. K., Khoo, A., Bushman, B. J., Huesmann, L. R., & Sakamoto, A. (2009). The effects of prosocial video games on prosocial behaviors: International evidence from correlational, longitudinal, and experimental studies. *Personality and Social Psychology Bulletin*, 35(6), 752–763.

DOI / link	https://doi.org/10.1177/0146167209333045 Tags: aggression/prosociality, social/identity
P - Population	Children, adolescents, and young adults across international samples.
I - Intervention / exposure	Playing prosocial video games or greater exposure to prosocial game content.
C - Comparator	Lower prosocial-game exposure or violent and neutral game conditions.
O - Outcomes	Prosocial behavior, helping, cooperation, and related prosocial cognitions and affect.
S - Study design	Multi-study program combining correlational, longitudinal, and experimental designs.

Source: Researcher-approved source abstract/summary and citation metadata.

Metadata status: Researcher-confirmed citation and DOI | **PICOS confidence:** High - PICOS confirmed from the approved abstract/summary

Gentile, D. A., et al. (2011)

Pathological video game use among youths: A two-year longitudinal study

Citation: Gentile, D. A., et al. (2011). Pathological video game use among youth: A two-year longitudinal study. *Pediatrics*, 127(2), e319-e329.

DOI / link	https://doi.org/10.1542/peds.2010-1353 Tags: mood/emotion, gaming disorder, social/identity
P - Population	3,000 children in Singapore: those who became addicted to gaming showed increased depression, anxiety, a
I - Intervention / exposure	Pathological video game use among youth: A two-year longitudinal study
C - Comparator	Lower/no gaming exposure, alternate player groups, or modeled comparison
O - Outcomes	Mood/emotion regulation, Social/identity
S - Study design	Longitudinal observational study

Source: VGTX research.pdf, p. 212 (source citation); source extraction p. 212

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate to high - based on source summary and verified citation metadata

Geudens, M., Bradt, L., De Cock, R., Zaman, B., & Grosemans, E. (2026)

Gambling-like gaming, offline leisure, and help-seeking in problematic gaming among Flemish adolescents: A three-wave longitudinal study

Citation: Geudens, M., Bradt, L., De Cock, R., Zaman, B., & Grosemans, E. (2026). Gambling-like gaming, offline leisure, and help-seeking in problematic gaming among Flemish adolescents: A three-wave longitudinal study. *Frontiers in Psychology*, 17, Article 1831367. <https://doi.org/10.3389/fpsyg.2026.1831367>

DOI / link	https://doi.org/10.3389/fpsyg.2026.1831367 Tags: gaming disorder, behavior/engagement, social/identity
P - Population	Flemish secondary-school students who gamed at least occasionally: T1 N = 1,863, T2 N = 1,807, and T3 N = 1,748.
I - Intervention / exposure	Baseline engagement with gambling-like gaming features and microtransactions, offline extracurricular participation, and perceived competence in extracurricular domains, followed across three annual waves.
C - Comparator	Lower levels of the assessed gaming and leisure exposures, with longitudinal models controlling for baseline problematic-gaming symptoms and sociodemographic covariates.
O - Outcomes	Problematic-gaming prevalence and symptom change across one- and two-year intervals, plus knowledge of help resources and actual help-seeking behavior at T3.
S - Study design	Three-wave annual longitudinal cohort study using autoregressive hierarchical regression models and repeated assessments.

Source: Frontiers full text (abstract, methods, and longitudinal results) and publisher citation metadata.

Metadata status: Citation, DOI, volume, article number, wave-specific sample sizes, measures, predictors, and primary findings verified against the publisher full text | **PICOS confidence:** High - population, exposures, outcomes, and longitudinal design confirmed from the full article

Gilleade, K. M., Dix, A., & Allanson, J. (2005)

Affective videogames and modes of affective gaming: Assist me, challenge me, emote me

Citation: Gilleade, K. M., Dix, A., & Allanson, J. (2005). Affective videogames and modes of affective gaming: Assist me, challenge me, emote me. *Proceedings of DiGRA 2005: Changing Views - Worlds in Play*, 1-7.

Gilleade, K. M., Dix, A., & Allanson, J. (2005)**Affective videogames and modes of affective gaming: Assist me, challenge me, emote me**

DOI / link	Missing or incomplete - retained for manual Zotero follow-up Tags: mood/emotion
P - Population	Not reported in source summary
I - Intervention / exposure	Affective videogames and modes of affective gaming: Assist me, challenge me, emote me
C - Comparator	Not reported or not applicable
O - Outcomes	Mood, affect, or emotion regulation
S - Study design	Foundational/theoretical work

Source: VGTx research.pdf, p. 213

Metadata status: Source citation captured; DOI resolution not independently confirmed unless noted | **PICOS confidence:** Provisional**Gonsalves, P. P., Hodgson, E. S., Kumar, A., Aurora, T., Chandak, Y., Sharma, R., et al. (2019)****Design and development of the “POD Adventures” game: A blended problem-solving intervention for adolescent mental health in India**Citation: Gonsalves, P. P., Hodgson, E. S., Kumar, A., Aurora, T., Chandak, Y., Sharma, R., et al. (2019). Design and development of the “POD Adventures” game: A blended problem-solving intervention for adolescent mental health in India. *Frontiers in Public Health*, 7, 238.

DOI / link	https://doi.org/10.3389/fpubh.2019.00238 Tags: general video-game psychology
P - Population	Children and/or adolescents
I - Intervention / exposure	Game-related exposure/intervention described in the article
C - Comparator	Not reported or not applicable
O - Outcomes	Outcome domain NR in source summary
S - Study design	Study design not fully reported in source summary

Source: VGTx research.pdf, p. 120 (source citation); source extraction p. 120

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text**Gonzalez-Heydrich, J., Kahn, J., & Ducharme, P. (2014)****Video game assisted CBT for anger control in youth: RAGE-Control (Regulate and Gain Emotional Control)**Citation: Gonzalez-Heydrich, J., Kahn, J., & Ducharme, P. (2014). Video game assisted CBT for anger control in youth: RAGE-Control (Regulate and Gain Emotional Control). *Harvard Review of Psychiatry*, 22(1), 15-25. Taylor & Francis.

DOI / link	https://doi.org/10.1097/hrp.0000000000000002 Tags: therapy/counseling, mood/emotion
P - Population	Children and/or adolescents
I - Intervention / exposure	Video game assisted CBT for anger control in youth: RAGE-Control (Regulate and Gain Emotional Control)
C - Comparator	control in youth: RAGE-Control (Regulate and Gain Emotional Control)
O - Outcomes	Mood/emotion regulation
S - Study design	Review

Source: VGTx research.pdf, p. 137 (source citation); source extraction p. 137

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text**Granic, I., Lobel, A., & Engels, R. C. (2014)****The benefits of playing video games**Citation: Granic, I., Lobel, A., & Engels, R. C. (2014). The benefits of playing video games. *American Psychologist*, 69(1), 66-78.

DOI / link	https://doi.org/10.1037/a0034857 Tags: general video-game psychology
P - Population	Not reported in source summary
I - Intervention / exposure	The benefits of playing video games

Granic, I., Lobel, A., & Engels, R. C. (2014)**The benefits of playing video games**

C - Comparator	Not reported or not applicable
O - Outcomes	Outcome domain NR in source summary
S - Study design	Study design not fully reported in source summary

Source: VGTX research.pdf, p. 121 (source citation); source extraction p. 139

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Green, C. S., & Bavelier, D. (2003)**Action video game modifies visual selective attention**

Citation: Green, C. S., & Bavelier, D. (2003). Action video game modifies visual selective attention. *Nature*, 423(6939), 534-537. Nature Publishing.

DOI / link	https://doi.org/10.1038/nature01647 Tags: cognition/executive function
P - Population	Not reported in source summary
I - Intervention / exposure	Action video game modifies visual selective attention
C - Comparator	Not reported or not applicable
O - Outcomes	Cognition/executive function
S - Study design	Study design not fully reported in source summary

Source: VGTX research.pdf, p. 137 (source citation); source extraction p. 137

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Griffith, J. L., Voloschin, P., Gibb, G. D., & Bailey, J. R. (1983)**Differences in eye-hand motor coordination of video-game users and non-users**

Citation: Griffith, J. L., Voloschin, P., Gibb, G. D., & Bailey, J. R. (1983). Differences in eye-hand motor coordination of video-game users and non-users. *Perceptual and Motor Skills*, 57(1), 155-158.

DOI / link	https://doi.org/10.2466/pms.1983.57.1.155 Tags: cognition/executive function, measurement/methods, general video-game psychology
P - Population	Thirty-one video-game users and 31 non-users.
I - Intervention / exposure	Regular video-game-use status.
C - Comparator	Participants who did not use video games.
O - Outcomes	Eye-hand motor coordination on a pursuit rotor and associations with weekly play time and length of gaming experience.
S - Study design	Cross-sectional group-comparison study.

Source: Publisher abstract and citation metadata.

Metadata status: Citation, DOI, volume, issue, pages, sample, comparator, outcome measure, and findings verified against the publisher record | **PICOS confidence:** High - PICOS confirmed from the publisher abstract

Griffiths, M. D. (1997)**Video games and clinical practice: Issues, uses and treatments**

Citation: Griffiths, M. D. (1997). Video games and clinical practice: Issues, uses and treatments. *British Journal of Clinical Psychology*, 36(4), 639-641. Wiley Online Library.

DOI / link	https://doi.org/10.1111/j.2044-8260.1997.tb01271.x Tags: therapy/counseling
P - Population	Not reported in source summary
I - Intervention / exposure	Video games and clinical practice: Issues, uses and treatments
C - Comparator	Not reported or not applicable
O - Outcomes	Clinical symptoms/functioning
S - Study design	Study design not fully reported in source summary

Griffiths, M. D. (1997)**Video games and clinical practice: Issues, uses and treatments**

Source: VGTX research.pdf, p. 138 (source citation); source extraction p. 138

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Griffiths, M. D. (2003)**The therapeutic use of videogames in childhood and adolescence**

Citation: Griffiths, M. D. (2003). The therapeutic use of videogames in childhood and adolescence. Clinical Child Psychology and Psychiatry, 8(4), 547-554.

DOI / link <https://doi.org/10.1177/13591045030084012>
Tags: therapy/counseling

P - Population	Not reported in source summary
I - Intervention / exposure	The therapeutic use of videogames in childhood and adolescence
C - Comparator	Not reported or not applicable
O - Outcomes	Clinical symptoms/functioning
S - Study design	Study design not fully reported in source summary

Source: VGTX research.pdf, p. 114 (source citation); source extraction p. 114

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Griffiths, M. D. (2004)**Can videogames be good for your health? Journal of Health Psychology, 9(3), 339-344**

Citation: Griffiths, M. D. (2004). Can videogames be good for your health? Journal of Health Psychology, 9(3), 339-344. SAGE Journals.

DOI / link <https://doi.org/10.1177/1359105304042344>
Tags: general video-game psychology

P - Population	Not reported in source summary
I - Intervention / exposure	Can videogames be good for your health? Journal of Health Psychology, 9(3), 339-344
C - Comparator	Not reported or not applicable
O - Outcomes	Outcome domain NR in source summary
S - Study design	Study design not fully reported in source summary

Source: VGTX research.pdf, p. 138 (source citation); source extraction p. 138

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Guala, M. M., Bul, K., Skårderud, F., & Søgaa Nielsen, A. (2023)**A serious game for patients with eating disorders (Maze Out): Pilot user experience and acceptance study**

Citation: Guala, M. M., Bul, K., Skårderud, F., & Søgaa Nielsen, A. (2023). A serious game for patients with eating disorders (Maze Out): Pilot user experience and acceptance study. JMIR Formative Research, 7, e40594.

DOI / link <https://doi.org/10.2196/40594>
Tags: therapeutic/serious games, therapy/counseling, eating disorders

P - Population	Patients receiving treatment for eating disorders.
I - Intervention / exposure	Playing Maze Out, a serious game designed to support eating-disorder treatment.
C - Comparator	No active comparator.
O - Outcomes	User experience, acceptability, usability, engagement, and perceived therapeutic relevance.
S - Study design	Pilot mixed-methods user-experience and acceptance study.

Source: Researcher-approved source abstract/summary and citation metadata.

Metadata status: Researcher-confirmed citation and DOI | **PICOS confidence:** High - PICOS confirmed from the approved abstract/summary

Gungor, et al. (2026)**A comparative interventional study of acceptance and commitment therapy, emotion-focused therapy, and attachment-based therapy in adolescents with gaming disorder *Frontiers in Psychology*, 17, 1780192.**

Citation: Gungor, et al. (2026). A comparative interventional study of acceptance and commitment therapy, emotion-focused therapy, and attachment-based therapy in adolescents with gaming disorder *Frontiers in Psychology*, 17, 1780192.

DOI / link <https://doi.org/10.3389/fpsyg.2026.1780192>
Tags: therapy/counseling, mood/emotion, gaming disorder

P - Population 100 adolescents meeting ICD-11 gaming-disorder criteria

I - Intervention / exposure ACT, emotion-focused therapy, or attachment-based therapy

C - Comparator Three active-treatment groups

O - Outcomes Emotion regulation and gaming-disorder-related outcomes

S - Study design Comparative interventional study

Source: vgtx, p. 264

Metadata status: PubMed/publisher record verified online | **PICOS confidence:** Moderate to high - based on source summary and verified citation metadata

Güngör, S. (2026)**A comparative interventional study on the effectiveness of acceptance and commitment therapy, emotion-focused therapy, and attachment-based therapy in improving emotion regulation among adolescents with digital game addiction**

Citation: Güngör, S. (2026). A comparative interventional study on the effectiveness of acceptance and commitment therapy, emotion-focused therapy, and attachment-based therapy in improving emotion regulation among adolescents with digital game addiction. *Frontiers in Psychology*, 17, Article 1780192. <https://doi.org/10.3389/fpsyg.2026.1780192>

DOI / link <https://doi.org/10.3389/fpsyg.2026.1780192>
Tags: therapy/counseling, gaming disorder, mood/emotion

P - Population One hundred adolescents ages 13–18 with gaming disorder diagnosed according to ICD-11 criteria; ACT, EFT, ABT, and wait-list groups each included 25 participants.

I - Intervention / exposure Acceptance and commitment therapy delivered in eight sessions, emotion-focused therapy delivered in eight sessions, or attachment-based therapy delivered in 10 sessions.

C - Comparator Wait-list control group and direct comparisons among the three active therapy conditions.

O - Outcomes Functional and dysfunctional internal and external emotion-regulation scores at posttest and six-week follow-up, with digital-game-addiction symptoms also assessed.

S - Study design Four-arm randomized controlled trial with pretest, posttest, and six-week follow-up assessments.

Source: Frontiers full text (abstract, methods, and results) and publisher citation metadata.

Metadata status: Citation, DOI, volume, article number, sample, treatment arms, session counts, comparator, assessment schedule, and outcomes verified against the publisher full text | **PICOS confidence:** High - core PICOS and trial structure confirmed from the full article

Gómez-León, M. I., et al. (2025)**Serious games to support emotional regulation strategies in children and adolescents: A systematic review**

Citation: Gómez-León, M. I., et al. (2025). Serious games to support emotional regulation strategies in children and adolescents: A systematic review. *Heliyon*. Advance online publication.

DOI / link <https://doi.org/10.1016/j.heliyon.2025.e29123>
Tags: therapeutic/serious games, mood/emotion

P - Population children

I - Intervention / exposure Serious games to support emotional regulation strategies in children and adolescents: A systematic review

C - Comparator Varied comparators across included studies

O - Outcomes Mood/emotion regulation

S - Study design Systematic review

Source: VGTX research.pdf, p. 203 (source citation); source extraction p. 203

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate to high - based on source summary and verified citation metadata

H | Alphabetical records

Hajek, A., Stickley, A., Peltzer, K., Pengpid, S., & König, H.-H. (2026)

Gaming disorder: Prevalence and association with psychosocial outcomes in the German general adult population

Citation: Hajek, A., Stickley, A., Peltzer, K., Pengpid, S., & König, H.-H. (2026). Gaming disorder: Prevalence and association with psychosocial outcomes in the German general adult population. Addictive Behaviors Reports, 23, 100682.

DOI / link	https://doi.org/10.1016/j.abrep.2026.100682 Tags: gaming disorder, depression, anxiety, wellbeing, social isolation
P - Population	3,270 German adults aged 18–74
I - Intervention / exposure	Gaming status/probable Gaming Disorder
C - Comparator	Nongamers, gamers without probable GD, gamers with probable GD
O - Outcomes	Depression, anxiety, life satisfaction, isolation, withdrawal
S - Study design	Population-based cross-sectional survey

Source: Addictive Behaviors Reports

Metadata status: Verified | **PICOS confidence:** High

Harpas, et al. (2025)

Treatment of gaming disorder: A systematic review and meta-analysis Psychiatry Research.

Citation: Harpas, et al. (2025). Treatment of gaming disorder: A systematic review and meta-analysis Psychiatry Research.

DOI / link	https://doi.org/10.1016/j.psychres.2025.116783 Tags: therapy/counseling, mood/emotion, gaming disorder
P - Population	21 controlled trials; 1,360 participants
I - Intervention / exposure	Psychological and other interventions for gaming disorder
C - Comparator	Control or alternative-treatment conditions
O - Outcomes	Gaming symptoms, gaming time, depression, anxiety, and follow-up effects
S - Study design	Systematic review and meta-analysis

Source: vgtx, p. 264

Metadata status: PubMed/publisher record verified online | **PICOS confidence:** Moderate to high - based on source summary and verified citation metadata

Harris, A., et al (2023)

Serious games in child and adolescent mental health: A meta-review JMIR Serious Games, 11, e39261.

Citation: Harris, A., et al (2023). Serious games in child and adolescent mental health: A meta-review JMIR Serious Games, 11, e39261.

DOI / link	https://doi.org/10.2196/39261 Tags: therapeutic/serious games
P - Population	Children and/or adolescents
I - Intervention / exposure	Serious games in child and adolescent mental health: A meta-review
C - Comparator	Varied comparators across included studies
O - Outcomes	Outcome domain NR in source summary
S - Study design	Systematic review and meta-analysis

Source: vgtx, p. 150

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

He, M., Ren, Y., Liu, Y., & Tong, K. K. (2025)

The prospective effect of protective gaming beliefs and behaviors on problematic gaming, mental health, and well-being of video game players *International Journal of Human-Computer Interaction*, 41(4), 2464-2474.

Citation: He, M., Ren, Y., Liu, Y., & Tong, K. K. (2025). The prospective effect of protective gaming beliefs and behaviors on problematic gaming, mental health, and well-being of video game players *International Journal of Human-Computer Interaction*, 41(4), 2464-2474.

DOI / link <https://doi.org/10.1080/10447318.2024.2323305>
Tags: mood/emotion, gaming disorder

P - Population	Video-game players
I - Intervention / exposure	Protective gaming beliefs and behaviors
C - Comparator	Lower protective-practice levels
O - Outcomes	Problematic gaming, mental health, and well-being
S - Study design	Six-month longitudinal survey

Source: vgtx, p. 264

Metadata status: Publisher record verified online | PICOS confidence: Moderate to high - based on source summary and verified citation metadata

Holmes, E. A., James, E. L., Coode-Bate, T., & Deeprose, C. (2010)

Can playing the computer game "Tetris" reduce the build-up of flashbacks for trauma? A proposal from cognitive science

Citation: Holmes, E. A., James, E. L., Coode-Bate, T., & Deeprose, C. (2010). Can playing the computer game "Tetris" reduce the build-up of flashbacks for trauma? A proposal from cognitive science. *PLoS ONE*, 4(1), e4153.

DOI / link <https://doi.org/10.1371/journal.pone.0004153>
Tags: cognition/executive function

P - Population	Not reported in source summary
I - Intervention / exposure	Can playing the computer game "Tetris" reduce the build-up of flashbacks for trauma? A proposal from cognitive science
C - Comparator	Not reported or not applicable
O - Outcomes	Cognition/executive function
S - Study design	Study design not fully reported in source summary

Source: VGTX research.pdf, p. 113 (source citation); source extraction p. 135

Metadata status: Source citation checked; DOI source-matched | PICOS confidence: Moderate - provisional PICOS; confirm against full text

Holmes, E. A., et al (2010)

Key steps in developing a cognitive vaccine against traumatic flashbacks: Tetris versus pub quiz *PLOS ONE*, 5, e13706.

Citation: Holmes, E. A., et al (2010). Key steps in developing a cognitive vaccine against traumatic flashbacks: Tetris versus pub quiz *PLOS ONE*, 5, e13706.

DOI / link <https://doi.org/10.1371/journal.pone.0013706>
Tags: cognition/executive function

P - Population	Not reported in source summary
I - Intervention / exposure	Game-related exposure/intervention described in the article
C - Comparator	versus pub quiz
O - Outcomes	Cognition/executive function
S - Study design	Study design not fully reported in source summary

Source: vgtx, p. 145

Metadata status: Source citation checked; DOI source-matched | PICOS confidence: Moderate - provisional PICOS; confirm against full text

Holmes, E. A., et al (2011)

The effects of coping style on the efficacy of video-game distraction for pain *British Journal of Health Psychology*, 16, 543-554.

Citation: Holmes, E. A., et al (2011). The effects of coping style on the efficacy of video-game distraction for pain *British Journal of Health Psychology*, 16, 543-554.

Holmes, E. A., et al (2011)**The effects of coping style on the efficacy of video-game distraction for pain** *British Journal of Health Psychology*, 16, 543-554.

DOI / link	https://doi.org/10.1348/135910710x522273 Tags: rehabilitation
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P - Population	Not reported in source summary
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I - Intervention / exposure	Game-related exposure/intervention described in the article
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C - Comparator	Not reported or not applicable
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O - Outcomes	Clinical symptoms/functioning
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S - Study design	Study design not fully reported in source summary
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Source: vgtx, p. 145

Metadata status: Source citation checked; DOI source-matched | PICOS confidence: Moderate - provisional PICOS; confirm against full text

Hong, J. S., Kim, S. M., Aboujaoude, E., & Han, D. H. (2018)**Investigation of a mobile serious game in the treatment of obsessive-compulsive disorder: A pilot study**Citation: Hong, J. S., Kim, S. M., Aboujaoude, E., & Han, D. H. (2018). Investigation of a mobile serious game in the treatment of obsessive-compulsive disorder: A pilot study. *Games for Health Journal*, 7(5), 317-326.

DOI / link	https://doi.org/10.1089/g4h.2017.0158 Tags: therapy/counseling, therapeutic/serious games
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P - Population	Not reported in source summary
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I - Intervention / exposure	Investigation of a mobile serious game in the treatment of obsessive-compulsive disorder: A pilot study
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C - Comparator	Not reported or not applicable
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O - Outcomes	Clinical symptoms/functioning
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S - Study design	Pilot/feasibility study
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Source: VGTx research.pdf, p. 115 (source citation); source extraction p. 115

Metadata status: Source citation checked; DOI source-matched | PICOS confidence: Moderate - provisional PICOS; confirm against full text

Horne-Moyer, H. L., Moyer, B. H., Messer, D. C., & Messer, E. S. (2014)**The use of electronic games in therapy: A review with clinical implications**Citation: Horne-Moyer, H. L., Moyer, B. H., Messer, D. C., & Messer, E. S. (2014). The use of electronic games in therapy: A review with clinical implications. *Current Psychiatry Reports*, 16(12), 520.

DOI / link	https://doi.org/10.1007/s11920-014-0520-6 Tags: therapy/counseling
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P - Population	Not reported in source summary
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I - Intervention / exposure	Game-related exposure/intervention described in the article
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C - Comparator	Varied comparators across included studies
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O - Outcomes	Clinical symptoms/functioning
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S - Study design	Review
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Source: VGTx research.pdf, p. 108 (source citation); source extraction p. 121

Metadata status: Source citation checked; DOI source-matched | PICOS confidence: Moderate - provisional PICOS; confirm against full text

Hsu, T.-C. (2026)**A generative AI driven interactive narrative serious game for stress relief and its randomized controlled pilot study**Citation: Hsu, T.-C. (2026). A generative AI driven interactive narrative serious game for stress relief and its randomized controlled pilot study. *Entertainment Computing*, 58, 101155.

DOI / link	https://doi.org/10.1016/j.entcom.2026.101155 Tags: stress, emotion regulation, serious game, CBT, generative AI
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P - Population	20 college students with moderate-to-high stress
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I - Intervention / exposure	14-day Reverie serious-game intervention
C - Comparator	Non-intervention control
O - Outcomes	Perceived stress, cognitive emotion-regulation strategies, usability
S - Study design	Randomized controlled pilot
Source: Entertainment Computing Metadata status: Verified PICOS confidence: High	

Hu, F., Tai, Z., & Liu, J. (2025)

The positive effect of video-game play on college students anxiety and depression symptoms during the COVID-19 pandemic shelter-in-place lockdowns: Mixed methods study JMIR Serious Games, 13, e58857.

Citation: Hu, F., Tai, Z., & Liu, J. (2025). The positive effect of video-game play on college students anxiety and depression symptoms during the COVID-19 pandemic shelter-in-place lockdowns: Mixed methods study JMIR Serious Games, 13, e58857.

DOI / link	https://doi.org/10.2196/58857 Tags: therapeutic/serious games, mood/emotion, social/identity
P - Population	2,818 college students from eight Chinese provinces
I - Intervention / exposure	Ordinary video-game play during COVID-19 lockdowns
C - Comparator	Differences in gaming exposure and coping/social contexts
O - Outcomes	Anxiety (GAD-7), depression (PHQ-9), coping, and social connection
S - Study design	Mixed-methods cross-sectional study

Source: vgtx, p. 262

Metadata status: PubMed/JMIR record verified online | PICOS confidence: Moderate to high - based on source summary and verified citation metadata

Huang, et al. (2026)

Nintendo Switch-based exergaming for subthreshold depression: Mixed methods randomized controlled trial JMIR Serious Games, 14, e80937.

Citation: Huang, et al. (2026). Nintendo Switch-based exergaming for subthreshold depression: Mixed methods randomized controlled trial JMIR Serious Games, 14, e80937.

DOI / link	https://doi.org/10.2196/80937 Tags: therapeutic/serious games, mood/emotion
P - Population	Participants with subthreshold depression
I - Intervention / exposure	Eight-week Ring Fit Adventure exergaming program
C - Comparator	Control condition reported in article
O - Outcomes	Depression, anxiety, sleep quality, and qualitative experience
S - Study design	Mixed-methods randomized controlled trial

Source: vgtx, p. 262

Metadata status: Publisher record verified online | PICOS confidence: Moderate to high - based on source summary and verified citation metadata

Hudlicka, E. (2009)

Affective game engines: Motivation and requirements

Citation: Hudlicka, E. (2009). Affective game engines: Motivation and requirements. In Proceedings of the 4th Intl. Conference on Foundations of Digital Games (FDG 2009) (pp. 299-306).

DOI / link	https://doi.org/10.1145/1536513.1536565 Tags: mood/emotion, cognition/executive function
P - Population	Not reported in source summary
I - Intervention / exposure	Game-related exposure/intervention described in the article
C - Comparator	Not reported or not applicable

Hudlicka, E. (2009)**Affective game engines: Motivation and requirements**

O - Outcomes	Mood/emotion regulation, Cognition/executive function, Neural/physiological measures, Behavior/engagement
S - Study design	Study design not fully reported in source summary
Source: VGTx research.pdf, p. 213 (source citation); source extraction p. 213	
Metadata status: Source citation checked; DOI source-matched PICOS confidence: Moderate - provisional PICOS; confirm against full text	

Huen, J. M., Lai, E. S., Shum, A. K., So, S. W., Chan, M. K., & Yip, P. S. (2016)**Evaluation of a digital game-based learning program for enhancing youth mental health: A structural equation modeling analysis**

Citation: Huen, J. M., Lai, E. S., Shum, A. K., So, S. W., Chan, M. K., & Yip, P. S. (2016). Evaluation of a digital game-based learning program for enhancing youth mental health: A structural equation modeling analysis. *JMIR Mental Health*, 3(4), e46.

DOI / link	https://doi.org/10.2196/mental.5656 Tags: therapeutic/serious games
P - Population	Children and/or adolescents
I - Intervention / exposure	Game-related exposure/intervention described in the article
C - Comparator	Not reported or not applicable
O - Outcomes	Outcome domain NR in source summary
S - Study design	Study design not fully reported in source summary
Source: VGTx research.pdf, p. 120 (source citation); source extraction p. 120	
Metadata status: Source citation checked; DOI source-matched PICOS confidence: Moderate - provisional PICOS; confirm against full text	

I | Alphabetical records

Isen, A. M., Shalker, T. E., Clark, M., & Karp, L. (1978)**Affect, accessibility of material in memory, and behavior: A cognitive loop?**

Citation: Isen, A. M., Shalker, T. E., Clark, M., & Karp, L. (1978). Affect, accessibility of material in memory, and behavior: A cognitive loop? *Journal of Personality and Social Psychology*, 36(1), 1–12.

DOI / link	https://doi.org/10.1037/0022-3514.36.1.1 Tags: mood/emotion, cognition/executive function, behavior/engagement
P - Population	Participants in two experiments; the game-based laboratory study included participants assigned to win or lose a computer game. Exact sample details require full-text confirmation.
I - Intervention / exposure	Positive affect induced through winning a computer game in the laboratory study.
C - Comparator	Losing the computer game; the paper also included a separate free-gift mood-induction study.
O - Outcomes	Recall of positive material, accessibility of affect-congruent cognitions, product evaluations, and helping-related behavior.
S - Study design	Two experimental studies; Study 2 used a computer-game outcome to manipulate affect.
Source: PubMed abstract and citation metadata.	
Metadata status: Citation, DOI, volume, issue, pages, and abstract verified against PubMed PICOS confidence: High for the game-based manipulation and reported outcomes; exact sample and allocation details pending full text	

Ioannou, N., Frommel, J., Sevinçli, M. C., & Poeller, S. (2026)**“What’s the point?”: How players use and perceive commendation systems in online multiplayer games**

Citation: Ioannou, N., Frommel, J., Sevinçli, M. C., & Poeller, S. (2026). “What’s the point?”: How players use and perceive commendation systems in online multiplayer games. In *Proceedings of the 21st International Conference on the Foundations of Digital Games*, Article 5, 1–13. ACM.

DOI / link	https://doi.org/10.1145/3815598.3815652 Tags: commendation, prosocial behavior, reinforcement, multiplayer psychology
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P - Population	511 online multiplayer players
I - Intervention / exposure	Experience with commendation systems
C - Comparator	Different usage/perception patterns
O - Outcomes	Commendation motives, friendliness, performance signaling, perceived purpose
S - Study design	Mixed-methods survey
Source: ACM FDG 2026 Metadata status: Verified PICOS confidence: High	

Iyadurai, L., Blackwell, S. E., Meiser-Stedman, R., Watson, P. C., Bonsall, M. B., Geddes, J. R., ... & Holmes, E. A. (2018)
Preventing intrusive memories after trauma via a brief intervention involving Tetris computer game play in the emergency department: A proof-of-concept randomized controlled trial

Citation: Iyadurai, L., Blackwell, S. E., Meiser-Stedman, R., Watson, P. C., Bonsall, M. B., Geddes, J. R., ... & Holmes, E. A. (2018). Preventing intrusive memories after trauma via a brief intervention involving Tetris computer game play in the emergency department: A proof-of-concept randomized controlled trial. *Molecular Psychiatry*, 23(3), 674-682.

DOI / link	https://doi.org/10.1038/mp.2017.23 Tags: general video-game psychology
P - Population	Not reported in source summary
I - Intervention / exposure	Preventing intrusive memories after trauma via a brief intervention involving Tetris computer game play in the emergency department: a proof-of-concept RCT
C - Comparator	Control/comparison condition NR in source summary
O - Outcomes	Outcome domain NR in source summary
S - Study design	Randomized controlled trial

Source: VGTx research.pdf, p. 109 (source citation); source extraction p. 135
Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

J | Alphabetical records

Jander, A., Crutzen, R., Mercken, L., Candel, M., & de Vries, H. (2016)
Effects of a web-based, tailored serious game on preventing binge drinking in adolescents: A cluster RCT

Citation: Jander, A., Crutzen, R., Mercken, L., Candel, M., & de Vries, H. (2016). Effects of a web-based, tailored serious game on preventing binge drinking in adolescents: A cluster RCT. *Journal of Medical Internet Research*, 18(2), e29.

DOI / link	https://doi.org/10.2196/jmir.4708 Tags: therapeutic/serious games
P - Population	adolescents
I - Intervention / exposure	Effects of a web-based, tailored serious game on preventing binge drinking in adolescents: A cluster RCT
C - Comparator	Control/comparison condition NR in source summary
O - Outcomes	Outcome domain NR in source summary
S - Study design	Randomized controlled trial

Source: VGTx research.pdf, p. 120 (source citation); source extraction p. 120
Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Janowicz, K., & Klimczyk, P. (2026)**Post-Game Depression Scale: A New Measure to Capture Players' Experiences After Finishing Video Games**

Citation: Janowicz, K., & Klimczyk, P. (2026). Post-Game Depression Scale: A New Measure to Capture Players' Experiences After Finishing Video Games. *Current Psychology*, 45(3), 1–14. <https://doi.org/10.1007/s12144-025-08515-2>

DOI / link	https://doi.org/10.1007/s12144-025-08515-2 Tags: mood/emotion/mental health, measurement
P - Population	373 players across two studies
I - Intervention / exposure	Assessment of experiences after finishing immersive video games
C - Comparator	Exploratory and confirmatory factor models; associations with related measures and game genres
O - Outcomes	17-item Post-Game Depression Scale, reliability, validity, depressive symptoms, rumination, emotional processing, and well-being
S - Study design	Two-study psychometric development and validation study

Source: 2024–July 2026 update search; user QA control

Metadata status: Web verified – Current Psychology/institutional repository | **PICOS confidence:** High - citation, sample, scale structure, and outcomes verified against institutional repository/publisher metadata

Jiménez-Muñoz, L., Peñuelas-Calvo, I., Calvo, P. M., Díaz-Oliván, I., Moreno, M., Baca-García, E., & Porras-Segovia, A. (2022)

Video games for the treatment of autism spectrum disorder: A systematic review

Citation: Jiménez-Muñoz, L., Peñuelas-Calvo, I., Calvo, P. M., Díaz-Oliván, I., Moreno, M., Baca-García, E., & Porras-Segovia, A. (2022). Video games for the treatment of autism spectrum disorder: A systematic review. *Journal of Autism and Developmental Disorders*, 52(1), 169–188.

DOI / link	https://doi.org/10.1007/s10803-021-04934-9 Tags: therapy/counseling
P - Population	Studies and participant populations included in the review
I - Intervention / exposure	Video games for the treatment of autism spectrum disorder: A systematic review
C - Comparator	Varied comparators across included studies or not applicable
O - Outcomes	Psychological, behavioral, cognitive, or clinical outcomes reported in the article
S - Study design	Systematic review

Source: VGTX research.pdf, p. 110

Metadata status: Source citation captured; DOI resolution not independently confirmed unless noted | **PICOS confidence:** Provisional

Jin, et al. (2026)**Time spent gaming, depressive symptoms, and behavioral activation: A longitudinal mediation study on predictors of gaming disorder *International Journal of Mental Health and Addiction*, 24, 1304-1318.**

Citation: Jin, et al. (2026). Time spent gaming, depressive symptoms, and behavioral activation: A longitudinal mediation study on predictors of gaming disorder *International Journal of Mental Health and Addiction*, 24, 1304–1318.

DOI / link	https://doi.org/10.1007/s11469-025-01459-5 Tags: mood/emotion, gaming disorder
P - Population	98 daily video-game players
I - Intervention / exposure	Gaming time, depressive symptoms, and behavioral activation as exposures
C - Comparator	Within-person and between-person differences over time
O - Outcomes	Gaming-disorder symptoms and longitudinal mediation paths
S - Study design	Micro-longitudinal mediation study

Source: vgtx, p. 264

Metadata status: Publisher record verified online | **PICOS confidence:** Moderate to high - based on source summary and verified citation metadata

Jirayucharoensak, S., Israsena, P., Pan-ngum, S., Hemrungrojn, S., & Maes, M. (2019)**A Game-Based Neurofeedback Training System to Enhance Cognitive Performance in Healthy Elderly Subjects and in Patients with Amnesic Mild Cognitive Impairment**

Citation: Jirayucharoensak, S., Israsena, P., Pan-ngum, S., Hemrungrojn, S., & Maes, M. (2019). A Game-Based Neurofeedback Training System to Enhance Cognitive Performance in Healthy Elderly Subjects and in Patients with Amnesic Mild Cognitive Impairment. *Clinical Interventions in Aging*, 14, 347-360.

DOI / link	https://doi.org/10.2147/cia.s189047 Tags: therapeutic/serious games, cognition/executive function, neuroscience/neuropsychology
P - Population	Patients with Amnesic Mild Cognitive Impairment
I - Intervention / exposure	Game-related exposure/intervention described in the article
C - Comparator	Not reported or not applicable
O - Outcomes	Clinical symptoms/functioning, Cognition/executive function
S - Study design	Study design not fully reported in source summary

Source: VGTX research.pdf, p. 125 (source citation); source extraction p. 125

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate to high - based on source summary and verified citation metadata

Joessel, F., Pichon, S., & Bavelier, D. (2024)**A video-game-based method to induce states of high and low flow**

Citation: Joessel, F., Pichon, S., & Bavelier, D. (2024). A video-game-based method to induce states of high and low flow. *Behavior Research Methods*, 56(5), 5128-5160.

DOI / link	https://doi.org/10.3758/s13428-023-02251-w Tags: therapy/counseling, therapeutic/serious games, mood/emotion, cognition/executive function, neuroscience/neuropsychology
P - Population	Not reported in source summary
I - Intervention / exposure	Game-related exposure/intervention described in the article
C - Comparator	Varied comparators across included studies
O - Outcomes	Mood/emotion regulation, Clinical symptoms/functioning, Cognition/executive function, Behavior/engagement
S - Study design	Systematic review

Source: VGTX research.pdf, p. 261 (source citation); source extraction p. 261

Metadata status: DOI present in source; citation-level verification still needed | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Johannes, N., Vuorre, M., & Przybylski, A. K. (2021)**Video game play is positively correlated with well-being**

Citation: Johannes, N., Vuorre, M., & Przybylski, A. K. (2021). Video game play is positively correlated with well-being. *Royal Society Open Science*, 8(2), 202049. <https://doi.org/10.1098/rsos.202049>

DOI / link	https://doi.org/10.1098/rsos.202049 Tags: mood/emotion, measurement/methods
P - Population	3,300 players, this study found small positive associations between play time and self-reported well-being
I - Intervention / exposure	Video game play is positively correlated with well-being
C - Comparator	Lower/no gaming exposure, alternate player groups, or modeled comparison
O - Outcomes	Mood/emotion regulation, Behavior/engagement
S - Study design	Study design not fully reported in source summary

Source: VGTX research.pdf, p. 212 (source citation); source extraction p. 212

Metadata status: Publication year/volume corrected to 2021, 8(2) | **PICOS confidence:** Moderate to high - based on source summary and verified citation metadata

Johnson, D., Deterding, S., Kuhn, K.-A., Staneva, A., Stoyanov, S., & Hides, L. (2016)
Gamification for Health and Wellbeing: A Systematic Review of the Literature

Citation: Johnson, D., Deterding, S., Kuhn, K.-A., Staneva, A., Stoyanov, S., & Hides, L. (2016). Gamification for Health and Wellbeing: A Systematic Review of the Literature. *Internet Interventions*, 6, 89–106. <https://doi.org/10.1016/j.invent.2016.10.002>

DOI / link	https://doi.org/10.1016/j.invent.2016.10.002 Tags: therapeutic/clinical, mood/emotion/mental health
P - Population	Studies and participant populations included in the review
I - Intervention / exposure	Gamified health and well-being interventions
C - Comparator	Varied comparators across included studies
O - Outcomes	Health, well-being, engagement, and behavior change outcomes
S - Study design	Systematic review

Source: VGTX research p247-247

Metadata status: Web verified – PubMed/publisher; Source title was shorthand. Relevant systematic review; missing from current draft. | **PICOS confidence:** High for citation and review design

Johnson, D., Gardner, M. J., & Perry, R. (2018)
Validation of two game experience scales: The Player Experience of Need Satisfaction (PENS) and Game Experience Questionnaire (GEQ)

Citation: Johnson, D., Gardner, M. J., & Perry, R. (2018). Validation of two game experience scales: The Player Experience of Need Satisfaction (PENS) and Game Experience Questionnaire (GEQ). *International Journal of Human-Computer Studies*, 118, 38–46.

DOI / link	https://doi.org/10.1016/j.ijhcs.2018.05.003 Tags: motivation/player experience, measurement/assessment
P - Population	Video-game players participating in psychometric validation studies.
I - Intervention / exposure	Completion of the PENS and GEQ following gameplay.
C - Comparator	Comparisons across scales, subscales, game experiences, and related psychological measures.
O - Outcomes	Factor structure, reliability, construct validity, and relationships among player-experience dimensions.
S - Study design	Multi-study psychometric validation.

Source: Researcher-approved source abstract/summary and citation metadata.

Metadata status: Researcher-confirmed citation and DOI | **PICOS confidence:** High - adapted PICOS confirmed from the approved abstract/summary

Jones, M. B., Kennedy, R. S., & Bittner, A. C., Jr. (1981)
A video game for performance testing

Citation: Jones, M. B., Kennedy, R. S., & Bittner, A. C., Jr. (1981). A video game for performance testing. *The American Journal of Psychology*, 94(1), 143–152.

DOI / link	https://doi.org/10.2307/1422349 Tags: measurement/methods, cognition/executive function, general video-game psychology
P - Population	Twenty-two participants.
I - Intervention / exposure	Practice on an Atari Air Combat Maneuvering video-game task for 10 trials per day across 15 days.
C - Comparator	Repeated practice days and trials; no separate control group reported in the abstract.
O - Outcomes	Hits per trial, group learning curve, between-participant variability, interday correlations, and differential performance stabilization.
S - Study design	Longitudinal repeated-measures performance-testing study.

Source: Article abstract and citation metadata.

Metadata status: Citation, DOI, sample, task, schedule, outcome structure, and principal performance pattern verified against the abstract record | **PICOS confidence:** High - core PICOS confirmed from the article abstract

K | Alphabetical records

Kafai, Y. B., & Burke, Q. (2015)

Connected Gaming: What Making Video Games Can Teach Us About Learning and Literacy

Citation: Kafai, Y. B., & Burke, Q. (2015). Connected Gaming: What Making Video Games Can Teach Us About Learning and Literacy. MIT Press.

DOI / link	Missing or incomplete - retained for manual Zotero follow-up Tags: cognition/neuroscience
P - Population	N/A (book, chapter, or conceptual work)
I - Intervention / exposure	Connected Gaming: What Making Video Games Can Teach Us About Learning and Literacy
C - Comparator	N/A
O - Outcomes	Conceptual framework or synthesis relevant to game psychology
S - Study design	Book, chapter, or theoretical synthesis

Source: VGTx research p130-130

Metadata status: Source metadata retained; book verification pending; Relevant scholarly book; retain without DOI if none is confirmed. | **PICOS**

confidence: Low to moderate - adapted PICOS; verify bibliographic details during Zotero entry

Kahlbaugh, P. E., Sperandio, A. J., Carlson, A., & Hauselt, J. (2011)

Effects of playing Wii on well-being in the elderly: Physical activity, loneliness, and mood

Citation: Kahlbaugh, P. E., Sperandio, A. J., Carlson, A., & Hauselt, J. (2011). Effects of playing Wii on well-being in the elderly: Physical activity, loneliness, and mood. Activities, Adaptation & Aging, 35(4), 331-344.

DOI / link	https://doi.org/10.1080/01924788.2011.625218 Tags: mood/emotion, social/identity
P - Population	Older adults
I - Intervention / exposure	Game-related exposure/intervention described in the article
C - Comparator	control group in a senior living community
O - Outcomes	Mood/emotion regulation, Social/identity
S - Study design	Study design not fully reported in source summary

Source: VGTx research.pdf, p. 215 (source citation); source extraction p. 215

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Kahn, J., Ducharme, P., Rotenberg, A., & Gonzalez-Heydrich, J. (2013)

"RAGE-Control": A game to build emotional strength

Citation: Kahn, J., Ducharme, P., Rotenberg, A., & Gonzalez-Heydrich, J. (2013). "RAGE-Control": A game to build emotional strength. Games for Health Journal, 2(1), 53-57. Liebert Pub.

DOI / link	https://doi.org/10.1089/g4h.2013.0007 Tags: mood/emotion
P - Population	Children receiving emotional-regulation support
I - Intervention / exposure	Active biofeedback videogame integrated with cognitive behavioral therapy
C - Comparator	Treatment as usual in early studies summarized
O - Outcomes	Emotional regulation and anger control
S - Study design	Conceptual and early clinical development report

Source: VGTx research.pdf, p. 136 (source citation); source extraction p. 137

Metadata status: PubMed/publisher record verified online | **PICOS confidence:** Moderate to high - based on source summary and verified citation metadata

Kato, P. M., Cole, S. W., Bradlyn, A. S., & Pollock, B. H. (2008)
A video game improves behavioral outcomes in adolescents and young adults with cancer: A randomized trial

Citation: Kato, P. M., Cole, S. W., Bradlyn, A. S., & Pollock, B. H. (2008). A video game improves behavioral outcomes in adolescents and young adults with cancer: A randomized trial. *Pediatrics*, 122(2), e305-e317.

DOI / link	https://doi.org/10.1542/peds.2007-3134 Tags: general video game psychology
P - Population	Children and/or adolescents
I - Intervention / exposure	A video game improves behavioral outcomes in adolescents and young adults with cancer: A randomized trial
C - Comparator	Control, treatment-as-usual, active comparison, or alternate condition as reported
O - Outcomes	Psychological, behavioral, cognitive, or clinical outcomes reported in the article
S - Study design	Randomized controlled trial

Source: VGTx research.pdf, p. 108

Metadata status: Source citation captured; DOI resolution not independently confirmed unless noted | **PICOS confidence:** Provisional

Kato, P. M. (2010)
Video games in health care: Closing the gap

Citation: Kato, P. M. (2010). Video games in health care: Closing the gap. *Review of General Psychology*, 14(2), 113-121.

DOI / link	https://doi.org/10.1037/a0019441 Tags: general video-game psychology
P - Population	Not reported in source summary
I - Intervention / exposure	Video games in health care: Closing the gap
C - Comparator	Varied comparators across included studies
O - Outcomes	Outcome domain NR in source summary
S - Study design	Review

Source: VGTx research.pdf, p. 121 (source citation); source extraction p. 138

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Kato, P. M., et al (2019)
A videogame-based intervention for mental-health training of adolescents with cancer: Results of the Re-Mission 2 pilot study *Pediatric Blood & Cancer*, 66, e27630.

Citation: Kato, P. M., et al (2019). A videogame-based intervention for mental-health training of adolescents with cancer: Results of the Re-Mission 2 pilot study *Pediatric Blood & Cancer*, 66, e27630.

DOI / link	https://doi.org/10.1002/pbc.27630 Tags: therapeutic/serious games
P - Population	adolescents
I - Intervention / exposure	A videogame-based intervention for mental-health training of adolescents with cancer: Results of the Re-Mission 2 pilot study
C - Comparator	Not reported or not applicable
O - Outcomes	Outcome domain NR in source summary
S - Study design	Pilot/feasibility study

Source: vgtx, p. 147

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Kaufman, D. A. (2017)
Evaluation of the Brief Internet Gaming Screen-8 (BIGS-8)

Citation: Kaufman, D. A. (2017). Evaluation of the Brief Internet Gaming Screen-8 (BIGS-8). *Journal / venue pending verification.*

DOI / link	Missing or incomplete - retained for manual Zotero follow-up Tags: measurement, gaming disorder/problematic play
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Kaufman, D. A. (2017)**Evaluation of the Brief Internet Gaming Screen-8 (BIGS-8)**

P - Population	Adolescents and/or young adults in the validation sample; exact sample pending verification
I - Intervention / exposure	Assessment of problematic gaming using the BIGS-8
C - Comparator	Related measures, factor structures, or subgroup comparisons as reported
O - Outcomes	Reliability, validity, and screening performance
S - Study design	Psychometric evaluation study

Source: Added in v1.2 author-coverage patch after user QA review; outside the prior extracted PDF candidate set

Metadata status: Provisional author-coverage patch added at user request; citation details should be verified against publisher metadata or full text during Zotero entry. Missing DOI retained when not confirmed. | **PICOS confidence:** Provisional - added in author-gap patch; verify bibliographic details during Zotero entry

Kaufman, D. A. (2023)**Personality, Motivation, and Flow in Final Fantasy XIV Players**

Citation: Kaufman, D. A. (2023). Personality, Motivation, and Flow in Final Fantasy XIV Players. Journal / venue pending verification.

DOI / link	Missing or incomplete - retained for manual Zotero follow-up Tags: player experience, motivation/engagement, MMORPG
P - Population	Final Fantasy XIV players; exact sample pending verification
I - Intervention / exposure	MMORPG participation and player motivation/personality characteristics
C - Comparator	Subgroup comparisons or correlational associations as reported
O - Outcomes	Motivation, flow, personality, and player-experience variables
S - Study design	Empirical correlational study

Source: Added in v1.2 author-coverage patch after user QA review; outside the prior extracted PDF candidate set

Metadata status: Provisional author-coverage patch added at user request; citation details should be verified against publisher metadata or full text during Zotero entry. Missing DOI retained when not confirmed. | **PICOS confidence:** Provisional - added in author-gap patch; verify bibliographic details during Zotero entry

Kuosmanen, T., Fleming, T. M., Newell, J., & Barry, M. M. (2017)**A pilot evaluation of the SPARX-R gaming intervention for preventing depression and improving wellbeing among adolescents in alternative education**

Citation: Kuosmanen, T., Fleming, T. M., Newell, J., & Barry, M. M. (2017). A pilot evaluation of the SPARX-R gaming intervention for preventing depression and improving wellbeing among adolescents in alternative education. Internet Interventions, 8, 40–47.

DOI / link	https://doi.org/10.1016/j.invent.2017.03.004 Tags: depression prevention, adolescents and young adults, alternative education, therapy/counseling, serious games, computerized CBT, emotion regulation, pilot randomized controlled trial
P - Population	146 young people ages 15–20 attending 21 Youthreach alternative-education centers in Ireland; 66 participants provided post-intervention data.
I - Intervention / exposure	SPARX-R, a computerized CBT gaming intervention delivered as a seven-module depression-prevention and wellbeing program.
C - Comparator	No-intervention control group.
O - Outcomes	Depressive symptoms, generalized anxiety, mental wellbeing, coping, and emotion-regulation strategies.
S - Study design	Pilot randomized controlled trial with baseline and seven-week post-intervention assessments.

Source: Researcher-provided correction set; PubMed Central.

Metadata status: Externally verified; authorship, page range, DOI, and publication metadata corrected. | **PICOS confidence:** High

Kestenbaum, G. I., & Weinstein, L. (1985)**Personality, psychopathology, and developmental issues in male adolescent video game use**

Citation: Kestenbaum, G. I., & Weinstein, L. (1985). Personality, psychopathology, and developmental issues in male adolescent video game use. Journal of the American Academy of Child Psychiatry, 24(3), 329-333.

Kestenbaum, G. I., & Weinstein, L. (1985)**Personality, psychopathology, and developmental issues in male adolescent video game use**

DOI / link	https://doi.org/10.1016/s0002-7138(09)60253-2 Tags: mood/emotion
P - Population	adolescents
I - Intervention / exposure	Personality, psychopathology, and developmental issues in male adolescent video game use
C - Comparator	control
O - Outcomes	Mood/emotion regulation, Clinical symptoms/functioning
S - Study design	Study design not fully reported in source summary
Source: VGTx research.pdf, p. 210 (source citation); source extraction p. 210 Metadata status: Source citation checked; DOI source-matched PICOS confidence: Moderate to high - based on source summary and verified citation metadata	

Kiili, K. (2005)**Digital game-based learning: Towards an experiential gaming model**

Citation: Kiili, K. (2005). Digital game-based learning: Towards an experiential gaming model. The Internet and Higher Education, 8, 13-24.

DOI / link	https://doi.org/10.1016/j.iheduc.2004.12.001 Tags: general video game psychology
P - Population	Not reported in source summary
I - Intervention / exposure	Digital game-based learning: Towards an experiential gaming model
C - Comparator	Not reported or not applicable
O - Outcomes	Psychological, behavioral, cognitive, or clinical outcomes reported in the article
S - Study design	Study design not fully reported in source summary
Source: VGTx research.pdf, p. 130 Metadata status: Externally verified where stated; otherwise source citation retained for later Zotero confirmation PICOS confidence: Provisional	

Kim, K., Lee, S., Hwang, S., & Shin, Y. (2026)**The impact of mobile game genre on gaming disorder risk in early adolescents: A goal-oriented classification approach**

Citation: Kim, K., Lee, S., Hwang, S., & Shin, Y. (2026). The impact of mobile game genre on gaming disorder risk in early adolescents: A goal-oriented classification approach. Frontiers in Psychology, 17, 1725287.

DOI / link	https://doi.org/10.3389/fpsyg.2026.1725287 Tags: mobile gaming, gaming disorder, genre, adolescents
P - Population	152 children aged 9–12
I - Intervention / exposure	Most frequently played mobile-game genre
C - Comparator	Goal-oriented game-genre groups
O - Outcomes	Gaming Disorder risk and daily gaming time
S - Study design	Cross-sectional cohort analysis
Source: Frontiers in Psychology Metadata status: Verified PICOS confidence: High	

Kivikangas, J. M., Chanel, G., Cowley, B., Ekman, I., et al. (2011)**A review of the use of psychophysiological methods in game research**

Citation: Kivikangas, J. M., Chanel, G., Cowley, B., Ekman, I., et al. (2011). A review of the use of psychophysiological methods in game research. Journal of Gaming & Virtual Worlds, 3(3), 181-199.

DOI / link	https://doi.org/10.1386/jgvw.3.3.181_1 Tags: mood/emotion, neuroscience/neuropsychology
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Kivikangas, J. M., Chanel, G., Cowley, B., Ekman, I., et al. (2011)
A review of the use of psychophysiological methods in game research

P - Population	Not reported in source summary
I - Intervention / exposure	Game-related exposure/intervention described in the article
C - Comparator	Varied comparators across included studies
O - Outcomes	Mood/emotion regulation, Neural/physiological measures
S - Study design	Review

Source: VGTX research.pdf, p. 214 (source citation); source extraction p. 214

Metadata status: Source citation checked; DOI source-matched | PICOS confidence: Moderate - provisional PICOS; confirm against full text

Klimczyk, P. (2023)
What Is the Post-Game Depression? A Narrative Inquiry

Citation: Klimczyk, P. (2023). What Is the Post-Game Depression? A Narrative Inquiry. Cyberpsychology: Journal of Psychosocial Research on Cyberspace, 17(2), Article 5. <https://doi.org/10.5817/CP2023-2-5>

DOI / link	https://doi.org/10.5817/CP2023-2-5 Tags: mood/emotion/mental health, qualitative research
P - Population	35 player narratives; 22 described post-game depression and 13 described reasons for not experiencing it
I - Intervention / exposure	Completion of emotionally meaningful or immersive video games
C - Comparator	Narratives from players who did not experience post-game depression
O - Outcomes	Post-game emptiness, media anhedonia, reminiscing, and relationships with games/characters
S - Study design	Qualitative exploratory narrative inquiry using interpretative phenomenological analysis guidelines

Source: VGTX research.pdf, p. 132

Metadata status: Web verified – journal/DOAJ | PICOS confidence: High - citation, sample, and method verified against journal full text

Kloos, A. D., Fritz, N. E., Kostyk, S. A., Young, G. S., & Kegelmeyer, D. A. (2013)
Video game play (Dance Dance Revolution) as a potential exercise therapy in Huntington's disease: a controlled clinical trial

Citation: Kloos, A. D., Fritz, N. E., Kostyk, S. A., Young, G. S., & Kegelmeyer, D. A. (2013). Video game play (Dance Dance Revolution) as a potential exercise therapy in Huntington's disease: a controlled clinical trial. Clinical Rehabilitation, 27(11), 972-982.

DOI / link	https://doi.org/10.1177/0269215513487235 Tags: therapy/counseling, rehabilitation
P - Population	Not reported in source summary
I - Intervention / exposure	Video game play (Dance Dance Revolution) as a potential exercise therapy in Huntington's disease: a controlled clinical trial
C - Comparator	controlled clinical trial
O - Outcomes	Clinical symptoms/functioning
S - Study design	Controlled clinical trial

Source: VGTX research.pdf, p. 113 (source citation); source extraction p. 113

Metadata status: Source citation checked; DOI source-matched | PICOS confidence: Moderate - provisional PICOS; confirm against full text

Kneer, J., & Günemann, F. (2020)
Therapeutic and adverse effects of gaming in depression: A systematic review

Citation: Kneer, J., & Günemann, F. (2020). Therapeutic and adverse effects of gaming in depression: A systematic review. Journal of Contemporary Psychotherapy, 50(4), 275-282.

DOI / link	https://doi.org/10.1007/s10879-020-09464-7 Tags: therapy/counseling, mood/emotion, social/identity
P - Population	Studies and participant populations included in the review
I - Intervention / exposure	Therapeutic and adverse effects of gaming in depression: A systematic review
C - Comparator	Varied comparators across included studies

Kneer, J., & Günnemann, F. (2020)**Therapeutic and adverse effects of gaming in depression: A systematic review**

O - Outcomes	Mood/emotion regulation, Clinical symptoms/functioning, Social/identity
S - Study design	Systematic review

Source: VGTX research.pdf, p. 213 (source citation); source extraction p. 213**Metadata status:** Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text**Kolko, D. J., & Rickard-Figueroa, K. (1985)****Effects of video games on the adverse corollaries of chemotherapy in pediatric oncology patients****Citation:** Kolko, D. J., & Rickard-Figueroa, K. (1985). Effects of video games on the adverse corollaries of chemotherapy in pediatric oncology patients. *Journal of Consulting and Clinical Psychology*, 53, 223-228.

DOI / link	https://doi.org/10.1037/0022-006x.53.2.223 Tags: therapy/counseling, mood/emotion
P - Population	Not reported in source summary
I - Intervention / exposure	Effects of video games on the adverse corollaries of chemotherapy in pediatric oncology patients
C - Comparator	Not reported or not applicable
O - Outcomes	Mood/emotion regulation, Clinical symptoms/functioning
S - Study design	Study design not fully reported in source summary

Source: VGTX research.pdf, p. 143 (source citation); source extraction p. 143**Metadata status:** Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text**Kollins, S. H., DeLoss, D. J., Cañadas, E., Lutz, J., Findling, R. L., Keefe, R. S. E., Epstein, J. N., Cutler, A. J., & Faraone, S. V. (2020)****A novel digital intervention for actively reducing severity of paediatric ADHD (STARS-ADHD): A randomised controlled trial****Citation:** Kollins, S. H., DeLoss, D. J., Cañadas, E., Lutz, J., Findling, R. L., Keefe, R. S. E., Epstein, J. N., Cutler, A. J., & Faraone, S. V. (2020). A novel digital intervention for actively reducing severity of paediatric ADHD (STARS-ADHD): A randomised controlled trial. *The Lancet Digital Health*, 2(4), e168–e178. [https://doi.org/10.1016/S2589-7500\(20\)30017-0](https://doi.org/10.1016/S2589-7500(20)30017-0)

DOI / link	https://doi.org/10.1016/s2589-7500(20)30017-0 Tags: therapeutic/clinical, cognition/neuroscience, ADHD
P - Population	348 children aged 8–12 years with confirmed ADHD and impaired TOVA Attention Performance Index scores
I - Intervention / exposure	AKL-T01 video-game-like digital therapeutic, 25 minutes/day, 5 days/week for 4 weeks
C - Comparator	Digital control intervention
O - Outcomes	TOVA Attention Performance Index, safety, tolerability, and adherence
S - Study design	Randomized, double-blind, parallel-group controlled trial

Source: VGTX research.pdf, p. 115 (source citation); source extraction p. 136**Metadata status:** Corrected against publisher/PubMed; prior draft had incorrect lead author/title/pages | **PICOS confidence:** High - metadata and core PICOS verified against publisher/PubMed**Kollins, S. H., Childress, A., Heusser, A. C., & Lutz, J. (2021)****Effectiveness of a digital therapeutic as adjunct to treatment with medication in pediatric ADHD****Citation:** Kollins, S. H., Childress, A., Heusser, A. C., & Lutz, J. (2021). Effectiveness of a digital therapeutic as adjunct to treatment with medication in pediatric ADHD. *npj Digital Medicine*, 4(1), Article 58.

DOI / link	https://doi.org/10.1038/s41746-021-00429-0 Tags: therapeutic/serious games, ADHD, cognition/executive function
P - Population	Children aged 8–14 years with ADHD, including participants taking stimulant medication and those not taking medication.
I - Intervention / exposure	AKL-T01 digital therapeutic delivered as an adjunctive home-based treatment.

C - Comparator	Medication-status cohorts and change from baseline; no randomized control condition in the effectiveness study.
O - Outcomes	ADHD-related impairment, attention, symptom ratings, global improvement, adherence, and safety.
S - Study design	Multicenter open-label effectiveness study.
Source: Researcher-approved source abstract/summary and citation metadata. Metadata status: Researcher-confirmed citation and DOI PICOS confidence: High - PICOS confirmed from the approved abstract/summary	

Kosa, M., & Uysal, A. (2022)

Need frustration in online video games

Citation: Kosa, M., & Uysal, A. (2022). Need frustration in online video games. Behaviour & Information Technology, 41(11), 2415-2426.

DOI / link	https://doi.org/10.1080/0144929x.2021.1928753 Tags: general video-game psychology
P - Population	Not reported in source summary
I - Intervention / exposure	Need frustration in online video games
C - Comparator	Not reported or not applicable
O - Outcomes	Outcome domain NR in source summary
S - Study design	Study design not fully reported in source summary

Source: VGTX research.pdf, p. 203 (source citation); source extraction p. 203

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Kowal, M., Conroy, E., Ramsbottom, N., Smithies, T., Toth, A., & Campbell, M. (2021)

Gaming your mental health: A narrative review on mitigating symptoms of depression and anxiety using commercial video games

Citation: Kowal, M., Conroy, E., Ramsbottom, N., Smithies, T., Toth, A., & Campbell, M. (2021). Gaming your mental health: A narrative review on mitigating symptoms of depression and anxiety using commercial video games. JMIR Serious Games, 9(3), e26575.

DOI / link	https://doi.org/10.2196/26575 Tags: therapeutic/serious games, mood/emotion
P - Population	Studies and participant populations included in the review
I - Intervention / exposure	Gaming your mental health: A narrative review on mitigating symptoms of depression and anxiety using commercial video games
C - Comparator	Varied comparators across included studies
O - Outcomes	Mood/emotion regulation, Clinical symptoms/functioning
S - Study design	Review

Source: VGTX research.pdf, p. 110 (source citation); source extraction p. 135

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Kowert, R., Griffiths, M. D., & Oldmeadow, J. A. (2012)

Geek or Chic? Emerging Stereotypes of Online Gamers

Citation: Kowert, R., Griffiths, M. D., & Oldmeadow, J. A. (2012). Geek or Chic? Emerging Stereotypes of Online Gamers. Bulletin of Science, Technology & Society, 32(6), 471-479.

DOI / link	Missing or incomplete - retained for manual Zotero follow-up Tags: stereotypes, social functioning, online gaming
P - Population	Online gamers and/or non-gamers represented in the study; exact sample pending verification
I - Intervention / exposure	Perceptions of online gamers and gaming identity
C - Comparator	Emerging stereotype profiles and comparison groups as reported
O - Outcomes	Stereotypes, stigma, and psychosocial perceptions of gamers
S - Study design	Empirical or mixed-methods social-perception study

Kowert, R., Griffiths, M. D., & Oldmeadow, J. A. (2012)
Geek or Chic? Emerging Stereotypes of Online Gamers

Source: Added in v1.2 author-coverage patch after user QA review; outside the prior extracted PDF candidate set
Metadata status: Provisional author-coverage patch added at user request; citation details should be verified against publisher metadata or full text during Zotero entry. Missing DOI retained when not confirmed. | **PICOS confidence:** Provisional to moderate - added in author-gap patch; verify bibliographic details during Zotero entry

Kowert, R., Domahidi, E., & Quandt, T. (2014)
The Relationship Between Online Video Game Involvement and Gaming-Related Friendships Among Emotionally Sensitive Individuals

Citation: Kowert, R., Domahidi, E., & Quandt, T. (2014). The Relationship Between Online Video Game Involvement and Gaming-Related Friendships Among Emotionally Sensitive Individuals. *Cyberpsychology, Behavior, and Social Networking*, 17(7), 447–453.

DOI / link	Missing or incomplete - retained for manual Zotero follow-up Tags: social support, friendships, online gaming
P - Population	Emotionally sensitive players / online gamers; exact sample pending verification
I - Intervention / exposure	Online video-game involvement
C - Comparator	Levels of emotional sensitivity and gaming-related friendship involvement
O - Outcomes	Gaming-related friendships and social support
S - Study design	Empirical cross-sectional study

Source: Added in v1.2 author-coverage patch after user QA review; outside the prior extracted PDF candidate set
Metadata status: Provisional author-coverage patch added at user request; citation details should be verified against publisher metadata or full text during Zotero entry. Missing DOI retained when not confirmed. | **PICOS confidence:** Moderate - key bibliographic details added in author-gap patch; verify DOI during Zotero entry

Kowert, R., Festl, R., & Quandt, T. (2014)
Unpopular, Overweight, and Socially Inept: Reconsidering the Stereotype of Online Gamers

Citation: Kowert, R., Festl, R., & Quandt, T. (2014). Unpopular, Overweight, and Socially Inept: Reconsidering the Stereotype of Online Gamers. *Cyberpsychology, Behavior, and Social Networking*, 17(3), 141–146.

DOI / link	Missing or incomplete - retained for manual Zotero follow-up Tags: social functioning, stereotypes, online gaming
P - Population	Online gamers and comparison groups; exact sample pending verification
I - Intervention / exposure	Online video-game play and gamer identity
C - Comparator	Stereotyped assumptions versus measured psychosocial characteristics; comparison groups as reported
O - Outcomes	Social functioning, body-image/stereotype variables, and psychosocial profile
S - Study design	Empirical cross-sectional study

Source: Added in v1.2 author-coverage patch after user QA review; outside the prior extracted PDF candidate set
Metadata status: Provisional author-coverage patch added at user request; citation details should be verified against publisher metadata or full text during Zotero entry. Missing DOI retained when not confirmed. | **PICOS confidence:** Moderate - key bibliographic details added in author-gap patch; verify DOI during Zotero entry

Kowert, R., & Oldmeadow, J. A. (2015)
Playing for Social Comfort: Online Video Game Play as a Social Accommodator for the Insecurely Attached

Citation: Kowert, R., & Oldmeadow, J. A. (2015). Playing for Social Comfort: Online Video Game Play as a Social Accommodator for the Insecurely Attached. *Computers in Human Behavior*, 53, 556–566.

DOI / link	Missing or incomplete - retained for manual Zotero follow-up Tags: attachment, social comfort, online gaming
P - Population	Online gamers; exact sample pending verification
I - Intervention / exposure	Online video-game play
C - Comparator	Attachment-security or subgroup differences as reported
O - Outcomes	Social comfort, attachment-related processes, and online play behavior
S - Study design	Empirical cross-sectional study

Kowert, R., & Oldmeadow, J. A. (2015)

Playing for Social Comfort: Online Video Game Play as a Social Accommodator for the Insecurely Attached

Source: Added in v1.2 author-coverage patch after user QA review; outside the prior extracted PDF candidate set

Metadata status: Provisional author-coverage patch added at user request; citation details should be verified against publisher metadata or full text during Zotero entry. Missing DOI retained when not confirmed. | **PICOS confidence:** Moderate - key bibliographic details added in author-gap patch; verify DOI during Zotero entry

Kuss, D. J., & Griffiths, M. D. (2012)

Internet gaming addiction: A systematic review of empirical research

Citation: Kuss, D. J., & Griffiths, M. D. (2012). Internet gaming addiction: A systematic review of empirical research. *International Journal of Environmental Research and Public Health*, 9(8), 2782-2802.

DOI / link	https://doi.org/10.3390/ijerph9082787 Tags: gaming disorder
P - Population	Studies and participant populations included in the review
I - Intervention / exposure	Internet gaming addiction: A systematic review.
C - Comparator	Varied comparators across included studies or not applicable
O - Outcomes	Gaming-disorder symptoms or impairment
S - Study design	Systematic review

Source: VGTX research.pdf, p. 248

Metadata status: Citation and DOI corrected during source audit | **PICOS confidence:** Provisional

Kühn, S., Gleich, T., Lorenz, R. C., Lindenberger, U., & Gallinat, J. (2014)

Playing Super Mario induces structural brain plasticity: Gray matter changes resulting from training with a commercial video game

Citation: Kühn, S., Gleich, T., Lorenz, R. C., Lindenberger, U., & Gallinat, J. (2014). Playing Super Mario induces structural brain plasticity: Gray matter changes resulting from training with a commercial video game. *Molecular Psychiatry*, 19, 265–271.

DOI / link	https://doi.org/10.1038/mp.2013.120 Tags: neuroscience/neuropsychology, cognition/executive function, commercial games
P - Population	Healthy young adults assigned to a video-game training group or a passive control group; exact sample details should be retained from the full article during Zotero entry.
I - Intervention / exposure	Training with Super Mario 64 on a Nintendo DS XXL for at least 30 minutes per day over 2 months.
C - Comparator	Passive no-training control group.
O - Outcomes	Gray matter volume in the right hippocampal formation, right dorsolateral prefrontal cortex, and bilateral cerebellum; navigation-strategy change; associations between gaming desire and volume change.
S - Study design	Longitudinal controlled video-game training study with pre/post structural MRI and voxel-based morphometry.

Source: Publisher full-text/abstract record: *Molecular Psychiatry*; DOI verified.

Metadata status: Publisher metadata and abstract checked; DOI source-matched | **PICOS confidence:** High for citation, intervention, comparator, outcomes, and design; exact sample characteristics should be confirmed during full-text Zotero entry.

Kühn, S., Kugler, D. T., Schmalen, K., Weichenberger, M., & Gallinat, J. (2018)

Does playing violent video games cause aggression? A longitudinal intervention study

Citation: Kühn, S., Kugler, D. T., Schmalen, K., Weichenberger, M., & Gallinat, J. (2018). Does playing violent video games cause aggression? A longitudinal intervention study. *Molecular Psychiatry*, 24(8), 1220-1234.

DOI / link	https://doi.org/10.1038/s41380-018-0031-7 Tags: general video-game psychology
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Kühn, S., Kugler, D. T., Schmalen, K., Weichenberger, M., & Gallinat, J. (2018)
Does playing violent video games cause aggression? A longitudinal intervention study

P - Population	Not reported in source summary
I - Intervention / exposure	Does playing violent video games cause aggression? A longitudinal intervention study
C - Comparator	Lower/no gaming exposure, alternate player groups, or modeled comparison
O - Outcomes	Outcome domain NR in source summary
S - Study design	Longitudinal observational study

Source: VGTX research.pdf, p. 208 (source citation); source extraction p. 208

Metadata status: Source citation checked; DOI source-matched | PICOS confidence: Moderate - provisional PICOS; confirm against full text

L | Alphabetical records

Lankes, M. (2026)
Beyond narrative reflection: Transience as a material pathway to eudaimonic player experience

Citation: Lankes, M. (2026). Beyond narrative reflection: Transience as a material pathway to eudaimonic player experience. In Proceedings of the 21st International Conference on the Foundations of Digital Games, Article 102, 1–5. ACM.

DOI / link	https://doi.org/10.1145/3815598.3815707 Tags: eudaimonia, transience, meaning, player experience
P - Population	N/A
I - Intervention / exposure	Transient/impermanent game mechanics
C - Comparator	None
O - Outcomes	Eudaimonic and meaningful player experience
S - Study design	Conceptual/design paper

Source: ACM FDG 2026

Metadata status: Verified | PICOS confidence: Moderate

Lankoski, P. (2026)
Emotions, protective frame, and videogame body genres

Citation: Lankoski, P. (2026). Emotions, protective frame, and videogame body genres. In Proceedings of the 21st International Conference on the Foundations of Digital Games, Article 101, 919–921. ACM.

DOI / link	https://doi.org/10.1145/3815598.3815666 Tags: emotion, protective frame, embodied experience, genre
P - Population	N/A
I - Intervention / exposure	Theoretical analysis of videogame body genres/protective framing
C - Comparator	Game/genre examples
O - Outcomes	Fear, disgust, empathy, arousal, hedonic/eudaimonic experience
S - Study design	Conceptual/theoretical analysis

Source: ACM FDG 2026

Metadata status: Verified | PICOS confidence: Moderate

Larche, C. J., & Dixon, M. J. (2020)

The relationship between the skill-challenge balance, game expertise, flow and the urge to keep playing complex mobile games

Citation: Larche, C. J., & Dixon, M. J. (2020). The relationship between the skill-challenge balance, game expertise, flow and the urge to keep playing complex mobile games. *Journal of Behavioral Addictions*, 9(3), 606-616.

DOI / link <https://doi.org/10.1556/2006.2020.00070>
Tags: mood/emotion, social/identity, rehabilitation

P - Population	Not reported in source summary
I - Intervention / exposure	Game-related exposure/intervention described in the article
C - Comparator	Not reported or not applicable
O - Outcomes	Mood/emotion regulation, Behavior/engagement, Social/identity
S - Study design	Study design not fully reported in source summary

Source: VGTX research.pdf, p. 204 (source citation); source extraction p. 204

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Lankes, M. (2026)

Beyond narrative reflection: Transience as a material pathway to eudaimonic player experience

Citation: Lankes, M. (2026). Beyond narrative reflection: Transience as a material pathway to eudaimonic player experience. In *Proceedings of the 21st International Conference on the Foundations of Digital Games*, Article 102, 1–5. ACM.

DOI / link <https://doi.org/10.1145/3815598.3815707>
Tags: eudaimonia, transience, meaning, player experience

P - Population	N/A
I - Intervention / exposure	Transient/impermanent game mechanics
C - Comparator	None
O - Outcomes	Eudaimonic and meaningful player experience
S - Study design	Conceptual/design paper

Source: ACM FDG 2026

Metadata status: Verified | **PICOS confidence:** Moderate

Lau, H. M., Smit, J. H., Fleming, T. M., & Riper, H. (2017)

Serious games for mental health: Are they accessible, feasible, and effective? A systematic review and meta-analysis

Citation: Lau, H. M., Smit, J. H., Fleming, T. M., & Riper, H. (2017). Serious games for mental health: Are they accessible, feasible, and effective? A systematic review and meta-analysis. *Frontiers in Psychiatry*, 7, 209.

DOI / link	https://doi.org/10.3389/fpsy.2016.00209 Tags: therapeutic/serious games
P - Population	Studies and participant populations included in the review
I - Intervention / exposure	Serious games for mental health: Are they accessible, feasible, and effective? A systematic review and meta-analysis
C - Comparator	Varied comparators across included studies
O - Outcomes	Outcome domain NR in source summary
S - Study design	Systematic review and meta-analysis

Source: VGTX research.pdf, p. 121 (source citation); source extraction p. 121

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Lee, S. J., Kim, S. Y., Ferguson, C. J., & Jeong, E. J. (2026)

Moral panic and gaming disorder: Focused on the mediation role of negative attitudes toward digital games

Citation: Lee, S. J., Kim, S. Y., Ferguson, C. J., & Jeong, E. J. (2026). Moral panic and gaming disorder: Focused on the mediation role of negative attitudes toward digital games. *Frontiers in Psychology*, 16, 1614807.

DOI / link	https://doi.org/10.3389/fpsyg.2025.1614807 Tags: gaming disorder, moral panic, stigma, attitudes toward gaming
P - Population	2,000 South Korean respondents
I - Intervention / exposure	Sociocultural concerns/negative attitudes toward games
C - Comparator	Variation in attitudes, demographics, gaming exposure
O - Outcomes	Support for pathologizing/regulating Gaming Disorder
S - Study design	Cross-sectional structural-equation modeling

Source: *Frontiers in Psychology*

Metadata status: Verified; published 2026 despite 2025 DOI/volume numbering | PICOS confidence: High

Leis, O., Shin, J., Welsh, M., Wunsch, L., & Sharpe, B. T. (2026)
Applied sport psychology in esports: A scoping review of intervention strategies

Citation: Leis, O., Shin, J., Welsh, M., Wunsch, L., & Sharpe, B. T. (2026). Applied sport psychology in esports: A scoping review of intervention strategies. *International Journal of Sports Science & Coaching*. Advance online publication.

DOI / link	https://doi.org/10.1177/17479541261455245 Tags: esports, sport psychology, coping, psychological intervention, performance
P - Population	Esports players represented in seven intervention studies
I - Intervention / exposure	Acceptance/mindfulness, coping training, arousal reappraisal, communication/team interventions
C - Comparator	Varied
O - Outcomes	Stress appraisal, coping, psychological safety, communication, wellbeing, performance
S - Study design	Scoping review

Source: *International Journal of Sports Science & Coaching*

Metadata status: Verified | PICOS confidence: High

Leis, O., Ziegeldorf, A., Hottenrott, N., Wunsch, L., Sharpe, B. T., Trotter, M. G., Watson, M., Scholz, T., Moriconi, M., Ourda, D., Karaikos, L., & Barkoukis, V. (2026)
Health and health-related behaviors in esports players: An international survey of playtime and nationality differences

Citation: Leis, O., Ziegeldorf, A., Hottenrott, N., Wunsch, L., Sharpe, B. T., Trotter, M. G., Watson, M., Scholz, T., Moriconi, M., Ourda, D., Karaikos, L., & Barkoukis, V. (2026). Health and health-related behaviors in esports players: An international survey of playtime and nationality differences. *Frontiers in Sports and Active Living*, 8, 1850349.

DOI / link	https://doi.org/10.3389/fspor.2026.1850349 Tags: esports, mental health, quality of life, sleep, social support
P - Population	413 esports players representing 48 nationalities
I - Intervention / exposure	Esports playtime and nationality/context
C - Comparator	Playtime/nationality groups
O - Outcomes	Mental health, quality of life, sleep, physical activity, substance use, social support
S - Study design	International cross-sectional survey

Source: Frontiers in Sports and Active Living
 Metadata status: Verified | PICOS confidence: High

Lelonek-Kuleta, B., Cudo, A., David, J., & Bartczuk, R. P. (2026)

Coping strategies and motivations to play as predictors of behavioral patterns within pay-to-win games

Citation: Lelonek-Kuleta, B., Cudo, A., David, J., & Bartczuk, R. P. (2026). Coping strategies and motivations to play as predictors of behavioral patterns within pay-to-win games. *Advances in Cognitive Psychology*, 22(3), 172–186.

DOI / link	https://doi.org/10.5709/acp-0499-9 Tags: pay-to-win, coping, motivation, escapism, problematic gaming
P - Population	868 pay-to-win gamers
I - Intervention / exposure	Coping strategies and gaming motivations
C - Comparator	Different purchasing/engagement patterns
O - Outcomes	Spending behavior, escape coping, social/self-enhancement motivation, problematic gaming
S - Study design	Cross-sectional online study

Source: Advances in Cognitive Psychology
 Metadata status: Verified | PICOS confidence: High

Lemmens, J. S., Valkenburg, P. M., & Peter, J. (2009)

Development and Validation of a Game Addiction Scale for Adolescents

Citation: Lemmens, J. S., Valkenburg, P. M., & Peter, J. (2009). Development and Validation of a Game Addiction Scale for Adolescents. *Media Psychology*, 12(1), 77–95. <https://doi.org/10.1080/15213260802669458>

DOI / link	https://doi.org/10.1080/15213260802669458 Tags: gaming disorder/problematic play, measurement
P - Population	Adolescents in scale-development and validation samples
I - Intervention / exposure	Assessment of problematic/addictive video-game use
C - Comparator	Factor structures and related psychological measures
O - Outcomes	Reliability, validity, and factor structure of the Game Addiction Scale
S - Study design	Psychometric development and validation study

Source: VGTX research p248-248

Metadata status: Web verified – publisher/DOI; Direct gaming-disorder measurement record; missing from current draft. | PICOS confidence: High for citation and study purpose

Lemola, S., et al. (2011)

Habitual computer game playing at night is related to depressive symptoms

Citation: Lemola, S., et al. (2011). Habitual computer game playing at night is related to depressive symptoms. *Personality and Individual Differences*, 51(2), 117-122.

DOI / link	https://doi.org/10.1016/j.paid.2011.03.024 Tags: mood/emotion
P - Population	adolescents
I - Intervention / exposure	Habitual computer game playing at night is related to depressive symptoms
C - Comparator	Not reported or not applicable
O - Outcomes	Mood/emotion regulation, Clinical symptoms/functioning
S - Study design	Study design not fully reported in source summary

Source: VGTX research.pdf, p. 212 (source citation); source extraction p. 212

Metadata status: Source citation checked; DOI source-matched | PICOS confidence: Moderate to high - based on source summary and verified citation metadata

Li, T. M., Chau, M., Wong, P. W., Lai, E. S., & Yip, P. S. (2013)

Evaluation of a web-based social network serious game for enhancing mental health literacy in young people

Citation: Li, T. M., Chau, M., Wong, P. W., Lai, E. S., & Yip, P. S. (2013). Evaluation of a web-based social network serious game for enhancing mental health literacy in young people. *Journal of Medical Internet Research*, 15(5), e80.

DOI / link	https://doi.org/10.2196/jmir.2316 Tags: therapeutic/serious games, social/identity
P - Population	Not reported in source summary
I - Intervention / exposure	Evaluation of a web-based social network serious game for enhancing mental health literacy in young people
C - Comparator	Not reported or not applicable
O - Outcomes	Social/identity
S - Study design	Study design not fully reported in source summary

Source: VGTX research.pdf, p. 120 (source citation); source extraction p. 120

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Li, J., Theng, Y. L., & Foo, S. (2014)

Game-based digital interventions for depression therapy: A systematic review and meta-analysis

Citation: Li, J., Theng, Y. L., & Foo, S. (2014). Game-based digital interventions for depression therapy: A systematic review and meta-analysis. *Cyberpsychology, Behavior, and Social Networking*, 17(8), 519-527.

DOI / link	https://doi.org/10.1089/cyber.2013.0481 Tags: therapy/counseling, therapeutic/serious games, mood/emotion, social/identity
P - Population	Studies and participant populations included in the review
I - Intervention / exposure	Game-related exposure/intervention described in the article
C - Comparator	Varied comparators across included studies
O - Outcomes	Mood/emotion regulation, Clinical symptoms/functioning, Behavior/engagement, Social/identity
S - Study design	Systematic review and meta-analysis

Source: VGTX research.pdf, p. 121 (source citation); source extraction p. 139

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Li, C., Guo, X., Wang, J., & Wang, S. (2025)

Single video games improve cognitive functioning in college students: Evidence from behavioral and fNIRS assessments
Frontiers in Psychiatry, 16, 1640142.

Citation: Li, C., Guo, X., Wang, J., & Wang, S. (2025). Single video games improve cognitive functioning in college students: Evidence from behavioral and fNIRS assessments *Frontiers in Psychiatry*, 16, 1640142.

DOI / link	https://doi.org/10.3389/fpsy.2025.1640142 Tags: cognition/executive function, neuroscience/neuropsychology
P - Population	43 male college students
I - Intervention / exposure	Single one-hour video-game session
C - Comparator	Non-video-game condition
O - Outcomes	Reaction time, accuracy, prefrontal oxygenated hemoglobin, and cognitive functioning
S - Study design	Randomized experimental fNIRS study

Source: new_2024_2026

Metadata status: PubMed/publisher record verified online | **PICOS confidence:** Moderate to high - based on source summary and verified citation metadata

Lim, C. G., Lee, T. S., Guan, C., Fung, D. S. S., Cheung, Y. B., Teng, S. S. W., Zhang, H., & Krishnan, K. R. R. (2010)
Effectiveness of a brain-computer interface based programme for the treatment of ADHD: A pilot study

Citation: Lim, C. G., Lee, T. S., Guan, C., Fung, D. S. S., Cheung, Y. B., Teng, S. S. W., Zhang, H., & Krishnan, K. R. R. (2010). Effectiveness of a brain-computer interface based programme for the treatment of ADHD: A pilot study. *Psychopharmacology Bulletin*, 43(1), 73–82.

DOI / link	https://doi.org/10.64719/pb.4281 Tags: ADHD, therapy/counseling, serious games/game-based intervention, brain–computer interface, neurofeedback, neuroscience/neuropsychology
P - Population	Twenty medication-naïve children ages 7–12 with combined-type or inattentive-type ADHD; 10 received the intervention and 10 were age- and gender-matched controls.
I - Intervention / exposure	Twenty individual 30-minute sessions across 10 weeks using attention-controlled BCI games, with periodic academic worksheets intended to encourage transfer of concentration skills.
C - Comparator	Age- and gender-matched children with ADHD receiving usual clinical follow-up without the BCI programme.
O - Outcomes	Parent- and teacher-rated ADHD Rating Scale-IV inattention scores were the primary outcomes; hyperactivity–impulsivity scores were also measured. Neural outcomes were not reported. EEG served as the game-control and feedback mechanism.
S - Study design	Small, controlled, nonrandomized pilot intervention study.

Source: Researcher-provided correction set; PubMed and MedWorks Media.

Metadata status: Externally verified; DOI and publication metadata matched. Small nonrandomized pilot with attrition; efficacy findings should be interpreted cautiously. | **PICOS confidence:** High

Lim, C. G., Lee, T. S., Guan, C., Fung, D. S. S., Zhao, Y., Teng, S. S. W., Zhang, H., & Krishnan, K. R. R. (2012)
A brain-computer interface based attention training program for treating attention deficit hyperactivity disorder

Citation: Lim, C. G., Lee, T. S., Guan, C., Fung, D. S. S., Zhao, Y., Teng, S. S. W., Zhang, H., & Krishnan, K. R. R. (2012). A brain-computer interface based attention training program for treating attention deficit hyperactivity disorder. *PLOS ONE*, 7(10), e46692.

DOI / link	https://doi.org/10.1371/journal.pone.0046692 Tags: ADHD, therapy/counseling, serious games/game-based intervention, brain–computer interface, neurofeedback, neuroscience/neuropsychology
P - Population	Twenty medication-naïve children ages 6–11 with inattentive- or combined-type ADHD; 17 completed the study.
I - Intervention / exposure	BCI-based attention training using the CogoLand 3D game. EEG-derived attention levels controlled an avatar during three 30-minute sessions per week for eight weeks, followed by three monthly booster sessions.
C - Comparator	No comparator; single-arm study.
O - Outcomes	Parent-rated ADHD Rating Scale-IV inattentive, hyperactive-impulsive, and total symptom scores; EEG-derived BCI ADHD Severity Measure; treatment adherence and acceptability.
S - Study design	Prospective, single-arm, open-label intervention study with repeated follow-up assessments.

Source: Researcher-provided correction set; PLOS ONE.

Metadata status: Externally verified; DOI and publication metadata matched. | **PICOS confidence:** High

Lim, C. G., Poh, X. W. W., Fung, D. S. S., Guan, C., Bautista, D., Cheung, Y. B., Zhang, H., Yeo, S. N., Krishnan, R., & Lee, T. S. (2019)

A randomized controlled trial of a brain-computer interface based attention training program for ADHD

Citation: Lim, C. G., Poh, X. W. W., Fung, D. S. S., Guan, C., Bautista, D., Cheung, Y. B., Zhang, H., Yeo, S. N., Krishnan, R., & Lee, T. S. (2019). A randomized controlled trial of a brain-computer interface based attention training program for ADHD. *PLOS ONE*, 14(5), e0216225.

DOI / link	https://doi.org/10.1371/journal.pone.0216225 Tags: ADHD, therapy/counseling, serious games/game-based intervention, brain–computer interface, neurofeedback, neuroscience/neuropsychology
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P - Population	172 children ages 6–12 with inattentive- or combined-type ADHD who were not receiving concurrent pharmacotherapy or behavioral intervention.
I - Intervention / exposure	BCI-based attention training using the 3D CogoLand game. EEG-detected attention controlled the speed of an on-screen avatar. Participants completed 24 sessions over eight weeks, followed by three monthly maintenance sessions over 12 weeks.
C - Comparator	Waitlist-control group that received no intervention during the initial eight-week comparison period and subsequently received the same BCI program.
O - Outcomes	Clinician- and parent-rated ADHD Rating Scale inattention symptoms; Child Behavior Checklist ADHD, internalizing, and externalizing scores; global functioning and clinical-improvement ratings; treatment safety and adverse events.
S - Study design	Assessor-blinded, randomized waitlist-controlled trial with maintenance training and post-intervention follow-up.
Source: Researcher-provided correction set; PLOS ONE.	
Metadata status: Externally verified; DOI and publication metadata matched. PICOS confidence: High	

Lin, J., & Chang, W.-R. (2024)

The effectiveness of serious games as digital therapeutics for enhancing the abilities of children with ADHD: A systematic literature review

Citation: Lin, J., & Chang, W.-R. (2024). The effectiveness of serious games as digital therapeutics for enhancing the abilities of children with ADHD: A systematic literature review. JMIR Serious Games, 12, e60937.

DOI / link	https://doi.org/10.2196/60937 Tags: therapeutic/serious games, ADHD, cognition/executive function
P - Population	Children with ADHD represented in the included studies.
I - Intervention / exposure	Serious games used as digital therapeutics to improve ADHD-related abilities.
C - Comparator	Conventional treatment, inactive controls, alternative digital interventions, or pre-post comparisons.
O - Outcomes	Attention, executive function, inhibitory control, behavior, learning, engagement, and clinical symptoms.
S - Study design	Systematic literature review.

Source: Researcher-approved source abstract/summary and citation metadata.

Metadata status: Researcher-confirmed citation and DOI | **PICOS confidence:** High - PICOS confirmed from the approved review abstract/summary

Liu, W., McDonough, D. J., & Gao, Z. (2024)

Comparing college students' mood states among immersive virtual reality, non-immersive virtual reality, and traditional biking exercise

Citation: Liu, W., McDonough, D. J., & Gao, Z. (2024). Comparing college students' mood states among immersive virtual reality, non-immersive virtual reality, and traditional biking exercise. PLOS ONE, 19(11), e0311113.

DOI / link	https://doi.org/10.1371/journal.pone.0311113 Tags: mood/emotion, exergaming/active video games, exercise/physical activity, virtual reality, psychological outcomes
P - Population	Forty-nine college students ages 18–35, including 34 women; mean age = 23.61 years.
I - Intervention / exposure	Three separate 20-minute cycling conditions: immersive VR exergaming using the PlayStation VR and VirZoom bike with Le Tour and Race Car; non-immersive exergaming using the Gamercize bike and Xbox 360 game Motocross; and traditional stationary cycling.
C - Comparator	Immersive VR exergaming compared with non-immersive exergaming and traditional stationary cycling within the same participants.
O - Outcomes	Immediate post-session mood states measured with the Brunel Mood Scale: anger, confusion, depression, fatigue, tension, and vigor.
S - Study design	Randomized and counterbalanced within-subject repeated-measures laboratory study.

Source: Researcher-provided correction set; PLOS ONE.

Metadata status: Externally verified; DOI and publication metadata matched. | **PICOS confidence:** High

Liu, B., Li, X., & Cai, H. (2026)

The effects of video games on cognitive function in older adults with mild cognitive impairment: A systematic review and meta-analysis *Frontiers in Aging Neuroscience*, 17, 1756970.

Citation: Liu, B., Li, X., & Cai, H. (2026). The effects of video games on cognitive function in older adults with mild cognitive impairment: A systematic review and meta-analysis *Frontiers in Aging Neuroscience*, 17, 1756970.

DOI / link	https://doi.org/10.3389/fnagi.2025.1756970 Tags: cognition/executive function
P - Population	Five randomized trials; approximately 215 older adults with mild cognitive impairment
I - Intervention / exposure	Video-game-based cognitive interventions
C - Comparator	Control conditions
O - Outcomes	Global cognition, attention, and executive function
S - Study design	Systematic review and meta-analysis

Source: vgtx, p. 266

Metadata status: PubMed/publisher record verified online | **PICOS confidence:** Moderate to high - based on source summary and verified citation metadata

Liu, Y., Li, S., Lv, H., & Qian, K. (2026)

MOBA eSports participation and psychological traits in individuals with disabilities: An association analysis grounded in self-efficacy, social support, and trait sport confidence

Citation: Liu, Y., Li, S., Lv, H., & Qian, K. (2026). MOBA eSports participation and psychological traits in individuals with disabilities: An association analysis grounded in self-efficacy, social support, and trait sport confidence. *Frontiers in Psychology*, 17, 1874127.

DOI / link	https://doi.org/10.3389/fpsyg.2026.1874127 Tags: esports, disability, self-efficacy, social support, confidence
P - Population	114 individuals with disabilities who played Honor of Kings
I - Intervention / exposure	MOBA esports participation characteristics
C - Comparator	Participation/comparison groups
O - Outcomes	Self-efficacy, social support, trait sport confidence
S - Study design	Cross-sectional association study

Source: *Frontiers in Psychology*

Metadata status: Verified | **PICOS confidence:** High

Lloyd, J., & Välimäki, M (2017)

Video games for schizophrenia [Protocol] Cochrane Database of Systematic Reviews, CD012844.

Citation: Lloyd, J., & Välimäki, M (2017). Video games for schizophrenia [Protocol] *Cochrane Database of Systematic Reviews*, CD012844.

DOI / link	https://doi.org/10.1002/14651858.cd012844 Tags: general video-game psychology
P - Population	Studies and participant populations included in the review
I - Intervention / exposure	Video games for schizophrenia [Protocol]
C - Comparator	versus standard care for schizophrenia
O - Outcomes	Outcome domain NR in source summary
S - Study design	Systematic review

Source: vgtx, p. 147

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Loftus, G. R., & Loftus, E. F. (1983)
Mind at Play: The Psychology of Video Games

Citation: Loftus, G. R., & Loftus, E. F. (1983). Mind at Play: The Psychology of Video Games. New York, NY: Basic Books.

DOI / link	Missing or incomplete - retained for manual Zotero follow-up Tags: mood/emotion
P - Population	Not reported in source summary
I - Intervention / exposure	Mind at Play: The Psychology of Video Games
C - Comparator	Not reported or not applicable
O - Outcomes	Mood, affect, or emotion regulation, Stress or psychophysiological arousal
S - Study design	Foundational/theoretical work

Source: VGTX research.pdf, p. 216

Metadata status: Source citation captured; DOI resolution not independently confirmed unless noted | PICOS confidence: Provisional

Loftus, E. F., & Loftus, G. R. (1987)
Habituation of physiological arousal in video game play

Citation: Loftus, E. F., & Loftus, G. R. (1987). Habituation of physiological arousal in video game play. Journal of Personality and Social Psychology, 52(2), 367-374.

DOI / link	Missing or incomplete - retained for manual Zotero follow-up Tags: mood/emotion
P - Population	Not reported in source summary
I - Intervention / exposure	Habituation of physiological arousal in video game play
C - Comparator	Not reported or not applicable
O - Outcomes	Mood, affect, or emotion regulation, Stress or psychophysiological arousal
S - Study design	Study design not fully reported in source summary

Source: VGTX research.pdf, p. 217

Metadata status: Source citation captured; DOI resolution not independently confirmed unless noted | PICOS confidence: Provisional

Lu, J., et al. (2026)
Effects of video game type on cognitive performance and brain functional connectivity: A longitudinal EEG study Brain Sciences, 16(1), 24.

Citation: Lu, J., et al. (2026). Effects of video game type on cognitive performance and brain functional connectivity: A longitudinal EEG study Brain Sciences, 16(1), 24.

DOI / link	https://doi.org/10.3390/brainsci16010024 Tags: therapy/counseling, cognition/executive function, neuroscience/neuropsychology
P - Population	68 participants across action-game and strategy-card-game conditions
I - Intervention / exposure	Extended action-game or strategy-card-game training
C - Comparator	Game-type groups and repeated measurements
O - Outcomes	Cognitive performance and EEG functional connectivity
S - Study design	Longitudinal EEG training study

Source: vgtx, p. 263

Metadata status: PubMed/publisher record verified online | PICOS confidence: Moderate to high - based on source summary and verified citation metadata

Lucassen, M. F. G., Hatcher, S., Fleming, T. M., Stasiak, K., Shepherd, M. J., & Merry, S. N. (2015)
A qualitative study of sexual minority young people's experiences of computerised therapy for depression

Citation: Lucassen, M. F. G., Hatcher, S., Fleming, T. M., Stasiak, K., Shepherd, M. J., & Merry, S. N. (2015). A qualitative study of sexual minority young people's experiences of computerised therapy for depression. Australasian Psychiatry, 23(3), 268-273.

DOI / link	https://doi.org/10.1177/1039856215579542 Tags: depression, therapy/counseling, serious games, computerized CBT, sexual minority youth, user experience/acceptability
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P - Population	Twenty-five sexual minority adolescents who had trialled Rainbow SPARX; 20 had significant depressive symptoms.
I - Intervention / exposure	Use of Rainbow SPARX, a computerized CBT serious game adapted for sexual minority youth with depressive symptoms.
C - Comparator	No comparator.
O - Outcomes	User experiences, acceptability, perceived helpfulness, application of skills to real life, disliked features, and recommendations for improving Rainbow SPARX.
S - Study design	Qualitative study using semi-structured interviews and general inductive analysis.
Source: Researcher-provided correction set; PubMed.	
Metadata status: Externally verified; DOI and publication metadata matched. PICOS confidence: High	

Lucassen, M. F. G., et al (2017)**The effectiveness of SPARX-R: A randomized controlled trial in New Zealand high-school students JMIR Mental Health, 4, e12.**

Citation: Lucassen, M. F. G., et al (2017). The effectiveness of SPARX-R: A randomized controlled trial in New Zealand high-school students JMIR Mental Health, 4, e12.

DOI / link	https://doi.org/10.2196/mental.8241 Tags: mood/emotion
P - Population	Not reported in source summary
I - Intervention / exposure	Game-related exposure/intervention described in the article
C - Comparator	controlled trial in New Zealand high-school students
O - Outcomes	Mood/emotion regulation, Clinical symptoms/functioning
S - Study design	Randomized controlled trial

Source: vgtx, p. 147

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Lukka, L., Karhulahti, V.-M., & Palva, J. M. (2026)**Mental health professionals' views on gaming to inform game-based interventions: Qualitative cross-sectional study**

Citation: Lukka, L., Karhulahti, V.-M., & Palva, J. M. (2026). Mental health professionals' views on gaming to inform game-based interventions: Qualitative cross-sectional study. JMIR Serious Games, 14, e69236.

DOI / link	https://doi.org/10.2196/69236 Tags: mental-health professionals, therapeutic gaming, implementation, competencies
P - Population	Mental-health professionals across qualitative datasets/questionnaire sample
I - Intervention / exposure	Professional experiences/views concerning games and game-based interventions
C - Comparator	Professional background/gaming-experience differences
O - Outcomes	Attitudes, competencies, barriers, potential clinical applications
S - Study design	Qualitative cross-sectional study

Source: JMIR Serious Games

Metadata status: Verified | **PICOS confidence:** High

Lukka, L., & Palva, J. M. (2023)**The Development of Game-Based Digital Mental Health Interventions: Bridging the Paradigms of Health Care and Entertainment**

Citation: Lukka, L., & Palva, J. M. (2023). The Development of Game-Based Digital Mental Health Interventions: Bridging the Paradigms of Health Care and Entertainment. JMIR Serious Games, 11, e42173.

Lukka, L., & Palva, J. M. (2023)

The Development of Game-Based Digital Mental Health Interventions: Bridging the Paradigms of Health Care and Entertainment

DOI / link	https://doi.org/10.2196/42173 Tags: therapeutic/serious games
P - Population	Not reported in source summary
I - Intervention / exposure	Game-related exposure/intervention described in the article
C - Comparator	Not reported or not applicable
O - Outcomes	Outcome domain NR in source summary
S - Study design	Study design not fully reported in source summary
Source: VGTx research.pdf, p. 126 (source citation); source extraction p. 126 Metadata status: Source citation checked; DOI source-matched PICOS confidence: Moderate - provisional PICOS; confirm against full text	

Lumsden, J., et al (2020)

Effect of Tetris-like games on intrusive memories after trauma: A randomized controlled trial Journal of Behavior Therapy and Experimental Psychiatry, 66, 101533.

Citation: Lumsden, J., et al (2020). Effect of Tetris-like games on intrusive memories after trauma: A randomized controlled trial Journal of Behavior Therapy and Experimental Psychiatry, 66, 101533.

DOI / link	https://doi.org/10.1016/j.jbtep.2019.101533 Tags: therapy/counseling
P - Population	Not reported in source summary
I - Intervention / exposure	Game-related exposure/intervention described in the article
C - Comparator	controlled trial
O - Outcomes	Clinical symptoms/functioning, Behavior/engagement
S - Study design	Randomized controlled trial
Source: vgtx, p. 148 Metadata status: Source citation checked; DOI source-matched PICOS confidence: Moderate - provisional PICOS; confirm against full text	

Luna-Perejón, F., Civit, M., Muñoz-Saavedra, L., Civit-Masot, J., Domínguez-Morales, M., & Miró-Amarante, L. (2026)

Real-time emotion recognition pipeline in videogames using physiological signals from a wearable device and facial action labels

Citation: Luna-Perejón, F., Civit, M., Muñoz-Saavedra, L., Civit-Masot, J., Domínguez-Morales, M., & Miró-Amarante, L. (2026). Real-time emotion recognition pipeline in videogames using physiological signals from a wearable device and facial action labels. Neural Computing and Applications, 38, Article 580.

DOI / link	https://doi.org/10.1007/s00521-026-12307-5 Tags: emotion recognition, physiology, wearable, commercial videogames
P - Population	25 university students
I - Intervention / exposure	Naturalistic commercial-videogame play with physiological monitoring
C - Comparator	Game/emotion states
O - Outcomes	Continuous affect classification
S - Study design	Naturalistic gameplay dataset/machine-learning validation study
Source: Neural Computing and Applications Metadata status: Verified PICOS confidence: High	

Lynch, B. (2002)

Historical review of computer-assisted cognitive retraining

Citation: Lynch, B. (2002). Historical review of computer-assisted cognitive retraining. *Journal of Head Trauma Rehabilitation*, 17(5), 446–457.

DOI / link	https://doi.org/10.1097/00001199-200210000-00006 Tags: cognitive rehabilitation, acquired brain injury, traumatic brain injury, computer-assisted intervention, therapy/counseling, neuroscience/neuropsychology, foundational/historical
P - Population	People with acquired brain injury and associated cognitive impairments represented in the reviewed literature.
I - Intervention / exposure	Computer-assisted cognitive retraining used as an adjunct to conventional cognitive rehabilitation, including specialized rehabilitation software and selected commercial computer programs.
C - Comparator	Varied across the literature reviewed; no single comparator.
O - Outcomes	Performance on trained cognitive tasks, broader cognitive functioning, clinical utility, functional transfer, and generalization of trained skills.
S - Study design	Historical narrative review of computer-assisted cognitive retraining research and clinical development.

Source: Researcher-provided correction set; PubMed.

Metadata status: Externally verified; DOI and publication metadata matched. | **PICOS confidence:** High

Lyons, E. J., et al. (2014)

Cultivating engagement and enjoyment in exergames using feedback, challenge, and rewards

Citation: Lyons, E. J., et al. (2014). Cultivating engagement and enjoyment in exergames using feedback, challenge, and rewards. *Games for Health Journal*, 3(5), 241-248.

DOI / link	https://doi.org/10.1089/g4h.2014.0072 Tags: general video-game psychology
P - Population	Not reported in source summary
I - Intervention / exposure	Cultivating engagement and enjoyment in exergames using feedback, challenge, and rewards
C - Comparator	Not reported or not applicable
O - Outcomes	Behavior/engagement
S - Study design	Study design not fully reported in source summary

Source: VGTX research.pdf, p. 204 (source citation); source extraction p. 204

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

M | Alphabetical records

Malone, T. W. (1981)

Toward a theory of intrinsically motivating instruction

Citation: Malone, T. W. (1981). Toward a theory of intrinsically motivating instruction. *Cognitive Science*, 5(4), 333–369.

DOI / link	https://doi.org/10.1207/s15516709cog0504_2 Tags: intrinsic motivation, game design, instructional games, engagement, challenge, fantasy, curiosity, foundational theory
P - Population	Participants in the computer-game studies discussed in the article, primarily children; no single unified study population.
I - Intervention / exposure	Computer games and instructional environments varying in challenge, fantasy, curiosity, goals, uncertainty, difficulty, sensory features, and feedback.
C - Comparator	Alternative game versions or instructional conditions with different motivational design features; varies across the studies discussed.
O - Outcomes	Game preference, voluntary engagement, enjoyment, persistence, and intrinsic motivation associated with challenge, fantasy, and curiosity.

S - Study design	Foundational theoretical synthesis incorporating prior motivation theories and empirical studies of computer-game design.
Source: Researcher-provided correction set; Wiley Online Library.	
Metadata status: Externally verified; DOI and publication metadata matched. PICOS confidence: High	

Mandryk, R. L., & Atkins, M. S. (2007)

A fuzzy physiological approach for continuously modeling emotion during interaction with play technologies

Citation: Mandryk, R. L., & Atkins, M. S. (2007). A fuzzy physiological approach for continuously modeling emotion during interaction with play technologies. *International Journal of Human-Computer Studies*, 65(4), 329-347.

DOI / link	https://doi.org/10.1016/j.ijhcs.2006.11.011 Tags: mood/emotion
P - Population	Not reported in source summary
I - Intervention / exposure	Game-related exposure/intervention described in the article
C - Comparator	Not reported or not applicable
O - Outcomes	Mood/emotion regulation, Neural/physiological measures
S - Study design	Study design not fully reported in source summary

Source: VGTX research.pdf, p. 213 (source citation); source extraction p. 213

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Mani Bharathi, V., Manimegalai, P., George, S. T., Pamela, D., Mohammed, M. A., Abdulkareem, K. H., Jaber, M. M., & Damaševičius, R. (2024)

A systematic review of techniques and clinical evidence to adopt virtual reality in post-stroke upper limb rehabilitation

Citation: Mani Bharathi, V., Manimegalai, P., George, S. T., Pamela, D., Mohammed, M. A., Abdulkareem, K. H., Jaber, M. M., & Damaševičius, R. (2024). A systematic review of techniques and clinical evidence to adopt virtual reality in post-stroke upper limb rehabilitation. *Virtual Reality*, 28, Article 172.

DOI / link	https://doi.org/10.1007/s10055-024-01065-1 Tags: stroke, upper-limb rehabilitation, virtual reality, game-based rehabilitation, exergaming, neuroscience/neuropsychology
P - Population	Adults and older adults with post-stroke upper-limb impairment represented across the reviewed studies; reported study samples ranged from 5 to 96 participants, with no participants younger than 18.
I - Intervention / exposure	Interactive virtual-reality and game-based upper-limb rehabilitation, including systems using Nintendo Wii, Microsoft Kinect, motion tracking, virtual environments, and rehabilitation games.
C - Comparator	Conventional or traditional rehabilitation, alternative VR techniques, or other control conditions; varied across the included studies.
O - Outcomes	Upper-limb motor function, balance and dynamic steadiness, performance of activities of daily living, functional independence, participation, and quality of life.
S - Study design	PRISMA-guided systematic review of interactive VR rehabilitation studies published between 2005 and 2021.

Source: Researcher-provided correction set; Springer.

Metadata status: Externally verified; corrected DOI and publication metadata matched. | **PICOS confidence:** High

Merry, S. N., Stasiak, K., Shepherd, M., Frampton, C., Fleming, T. M., & Lucassen, M. F. G. (2012)

The effectiveness of SPARX, a computerised self help intervention for adolescents seeking help for depression: Randomised controlled non-inferiority trial

Citation: Merry, S. N., Stasiak, K., Shepherd, M., Frampton, C., Fleming, T. M., & Lucassen, M. F. G. (2012). The effectiveness of SPARX, a computerised self help intervention for adolescents seeking help for depression: Randomised controlled non-inferiority trial. *BMJ*, 344, e2598.

DOI / link	https://doi.org/10.1136/bmj.e2598 Tags: depression, adolescents, therapy/counseling, serious games, computerized CBT, randomized controlled trial
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P - Population	187 adolescents ages 12–19 seeking help for depressive symptoms, assessed as requiring treatment and without a major risk of self-harm.
I - Intervention / exposure	SPARX, a seven-module computerized CBT serious game completed independently over approximately four to seven weeks.
C - Comparator	Treatment as usual provided through participating primary care and youth mental health services.
O - Outcomes	Clinician-rated depressive symptoms measured primarily with the Children's Depression Rating Scale–Revised; depression response and remission; self-reported depression, anxiety, hopelessness, and quality of life; treatment satisfaction and adverse events.
S - Study design	Randomized controlled non-inferiority trial with blinded outcome assessment and post-treatment follow-up.
Source: Researcher-provided correction set; BMJ. Metadata status: Externally verified; DOI and publication metadata matched. PICOS confidence: High	

Marcelino, N., Kusuma, S., Setiadi, T., Gunawan, A., & Saputra, K. (2023) Playing away the rage: A systematic literature review of games in anger management interventions	
Citation: Marcelino, N., Kusuma, S., Setiadi, T., Gunawan, A., & Saputra, K. (2023). Playing away the rage: A systematic literature review of games in anger management interventions. In 2023 IEEE International Conference on Networking, Computing and Information Technology (IConNECT) (pp. 168–173). IEEE.	
DOI / link	https://doi.org/10.1109/IConNECT56593.2023.10327136 Tags: mood/emotion, aggression/prosociality, therapeutic/serious games
P - Population	Participants in game-based anger-management interventions across the included studies.
I - Intervention / exposure	Digital or serious games targeting anger, aggression, emotion recognition, or emotion regulation.
C - Comparator	Usual care, non-game interventions, control conditions, or pre-post comparison.
O - Outcomes	Anger intensity, aggression, emotional regulation, coping skills, and engagement.
S - Study design	Systematic literature review.
Source: Researcher-approved source abstract/summary and citation metadata. Metadata status: Researcher-confirmed citation and DOI PICOS confidence: High - PICOS confirmed from the approved review abstract/summary	

Markovitch, B., Kamps, J. C. C., Orij, J. C., Markopoulos, P., & Birk, M. V. (2026) Turning cognitive science into game-based biomarkers: Acute stress detection with Tunnel Runner	
Citation: Markovitch, B., Kamps, J. C. C., Orij, J. C., Markopoulos, P., & Birk, M. V. (2026). Turning cognitive science into game-based biomarkers: Acute stress detection with Tunnel Runner. Computers in Human Behavior Reports, 23, 101176.	
DOI / link	https://doi.org/10.1016/j.chbr.2026.101176 Tags: stress, gameplay biomarkers, cognition, cortisol, psychophysiology
P - Population	Adults completing repeated Tunnel Runner sessions; initial N = 148
I - Intervention / exposure	Acute-stress induction plus gameplay-derived cognitive measurement
C - Comparator	Stress versus control
O - Outcomes	Gameplay cognitive measures, cortisol, subjective stress, stress classification
S - Study design	Controlled repeated-session experiment
Source: Computers in Human Behavior Reports Metadata status: Verified PICOS confidence: High	

Merry, S. N., et al (2017)**A pilot evaluation of the SPARX-R gaming intervention for preventing depression in alternative education settings**
Internet Interventions, 8, 25-31.

Citation: Merry, S. N., et al (2017). A pilot evaluation of the SPARX-R gaming intervention for preventing depression in alternative education settings *Internet Interventions*, 8, 25-31.

DOI / link	https://doi.org/10.1016/j.invent.2017.03.004 Tags: mood/emotion
P - Population	People with depression/depressive symptoms or included depression studies
I - Intervention / exposure	A pilot evaluation of the SPARX-R gaming intervention for preventing depression in alternative education settings
C - Comparator	Not reported or not applicable
O - Outcomes	Mood/emotion regulation
S - Study design	Pilot/feasibility study

Source: vgtx, p. 147

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Mishra, J., Anguera, J. A., & Gazzaley, A. (2016)**Video games for neuro-cognitive optimization**

Citation: Mishra, J., Anguera, J. A., & Gazzaley, A. (2016). Video games for neuro-cognitive optimization. *Neuron*, 90(2), 214-218. Cell Press.

DOI / link	https://doi.org/10.1016/j.neuron.2016.04.010 Tags: cognition/executive function, neuroscience/neuropsychology
P - Population	Not reported in source summary
I - Intervention / exposure	Video games for neuro-cognitive optimization
C - Comparator	Not reported or not applicable
O - Outcomes	Cognition/executive function
S - Study design	Study design not fully reported in source summary

Source: VGTX research.pdf, p. 138 (source citation); source extraction p. 138

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Moulds, E. E. (1978)**Selected physiological measures of arousal of high- and low-trait-anxiety females during competition**

Citation: Moulds, E. E. (1978). Selected physiological measures of arousal of high- and low-trait-anxiety females during competition [Doctoral dissertation, Louisiana State University and Agricultural & Mechanical College]. LSU Historical Dissertations and Theses.

DOI / link	https://doi.org/10.31390/gradschool_disstheses.3314 Tags: mood/emotion, neuroscience/neuropsychology, measurement/methods
P - Population	Female participants classified by high versus low trait anxiety; exact sample details require full-text confirmation.
I - Intervention / exposure	Competitive video-game performance used as the task context for examining physiological arousal.
C - Comparator	High- versus low-trait-anxiety groups and changes associated with competition; exact condition structure requires full-text confirmation.
O - Outcomes	Selected physiological measures of arousal during competition.
S - Study design	Doctoral dissertation reporting an experimental psychophysiological study.

Source: LSU institutional repository metadata; game-study identification corroborated by the historical methods literature.

Metadata status: Author, award year, dissertation type, institution, repository record, and DOI verified; the repository page does not provide an abstract | **PICOS confidence:** Provisional - game context and broad variables are supported, while sample, measures, conditions, and results require full-text extraction

Munteanu, A., Mo, W., Potapov, K., George, L., Miller, I. G., & Singh, A. (2026)**Playing for wellness: A diary study of videogame usage and adolescent wellbeing**

Citation: Munteanu, A., Mo, W., Potapov, K., George, L., Miller, I. G., & Singh, A. (2026). Playing for wellness: A diary study of videogame usage and adolescent wellbeing. In Proceedings of the 2026 CHI Conference on Human Factors in Computing Systems. ACM.

DOI / link	https://doi.org/10.1145/3772318.3791837 Tags: adolescents, commercial games, emotion regulation, wellbeing
P - Population	11 adolescents
I - Intervention / exposure	Everyday commercial videogame use over two weeks
C - Comparator	Within-person/contextual variation
O - Outcomes	Emotion regulation, wellbeing, reasons for play, social context
S - Study design	Longitudinal qualitative diary/interview study

Source: ACM CHI 2026

Metadata status: Verified | PICOS confidence: High

N | Alphabetical records

Nagata, J. M., Nayak, S., Choi, W., Potes, C., Heuer, A., Memon, Z., Talebloo, J., Li, E. J., Bao, K., Helmer, C. K., Moreno, M. A., & Lavender, J. M. (2026)

Health benefits of video games in adolescents and young adults

Citation: Nagata, J. M., Nayak, S., Choi, W., Potes, C., Heuer, A., Memon, Z., Talebloo, J., Li, E. J., Bao, K., Helmer, C. K., Moreno, M. A., & Lavender, J. M. (2026). Health benefits of video games in adolescents and young adults. Current Pediatrics Reports, 14, Article 2.

DOI / link	https://doi.org/10.1007/s40124-026-00376-y Tags: adolescents, wellbeing, cognition, social connection, identity
P - Population	Adolescents and young adults represented in reviewed literature
I - Intervention / exposure	Videogame play
C - Comparator	Varied
O - Outcomes	Cognition, executive functioning, social connection, identity development, psychological wellbeing
S - Study design	Clinical/narrative review

Source: Current Pediatrics Reports

Metadata status: Verified | PICOS confidence: Moderate

Neu, C., Hull, T. D., & Malgaroli, M. (2026)

Gaming-based community intervention for loneliness in adult gamers: Longitudinal observational study JMIR Formative Research, 10, e82428.

Citation: Neu, C., Hull, T. D., & Malgaroli, M. (2026). Gaming-based community intervention for loneliness in adult gamers: Longitudinal observational study JMIR Formative Research, 10, e82428.

DOI / link	https://doi.org/10.2196/82428 Tags: mood/emotion, cognition/executive function, social/identity
P - Population	Adult gamers participating in an online gaming-therapeutics community
I - Intervention / exposure	Professionally facilitated commercial-game groups and skills workshops delivered through Discord
C - Comparator	Within-person change over time
O - Outcomes	Loneliness, depression, anxiety, well-being, and psychological flexibility
S - Study design	Longitudinal observational intervention evaluation

Neu, C., Hull, T. D., & Malgaroli, M. (2026)

Gaming-based community intervention for loneliness in adult gamers: Longitudinal observational study JMIR Formative Research, 10, e82428.

Source: vgtx, p. 262

Metadata status: PubMed/JMIR record verified online | PICOS confidence: Moderate to high - based on source summary and verified citation metadata

Nunez-Rodriguez, et al. (2025)

Effectiveness of therapeutic interventions in the treatment of Internet Gaming Disorder: A systematic review European Journal of Investigation in Health, Psychology and Education, 15(4), 49.

Citation: Nunez-Rodriguez, et al. (2025). Effectiveness of therapeutic interventions in the treatment of Internet Gaming Disorder: A systematic review European Journal of Investigation in Health, Psychology and Education, 15(4), 49.

DOI / link	https://doi.org/10.3390/ejihpe15040049 Tags: therapy/counseling, mood/emotion, gaming disorder
P - Population	22 included studies of Internet Gaming Disorder
I - Intervention / exposure	CBT, mindfulness, family interventions, virtual reality, and other treatments
C - Comparator	Control or alternative treatment where available
O - Outcomes	Gaming-disorder severity, anxiety, depression, and functioning
S - Study design	Systematic review

Source: vgtx, p. 263 O

Metadata status: PubMed/publisher record verified online | PICOS confidence: Moderate to high - based on source summary and verified citation metadata

O | Alphabetical records

Ock, C.-M., Lee, H.-S., Chae, J., & Kim, H. (2025)

Effectiveness of non-pharmacological interventions on gaming disorder: A systematic review and meta-analysis Psychiatry Investigation, 22(5), 490-503.

Citation: Ock, C.-M., Lee, H.-S., Chae, J., & Kim, H. (2025). Effectiveness of non-pharmacological interventions on gaming disorder: A systematic review and meta-analysis Psychiatry Investigation, 22(5), 490-503.

DOI / link	https://doi.org/10.30773/pi.2024.0358 Tags: gaming disorder
P - Population	Included randomized trials of people with or at risk for gaming disorder
I - Intervention / exposure	CBT, multidimensional family therapy, virtual-reality training, and other non-pharmacological interventions
C - Comparator	Control or alternative intervention groups
O - Outcomes	Prevention and reduction of gaming-disorder symptoms
S - Study design	Systematic review and meta-analysis of randomized trials

Source: new_2024_2026

Metadata status: PubMed/journal/index record verified online | PICOS confidence: Moderate to high - based on source summary and verified citation metadata

Olarte Avila, T. C. (2026)

Designing a practice-based mobile prototype for mental health literacy through emotional granularity and reflective play

Citation: Olarte Avila, T. C. (2026). Designing a practice-based mobile prototype for mental health literacy through emotional granularity and reflective play. In Proceedings of the 21st International Conference on the Foundations of Digital Games. ACM.

DOI / link	https://doi.org/10.1145/3815598.3815672 Tags: mental-health literacy, emotional granularity, reflective play
P - Population	N/A; design/prototype paper
I - Intervention / exposure	Library of Emotions mobile prototype

C - Comparator	None
O - Outcomes	Mental-health literacy, emotional granularity, reflective-play design targets
S - Study design	Practice-based design/prototype paper
Source: ACM FDG 2026 Metadata status: Verified PICOS confidence: Moderate	

Olivares, D., Martínez-Pernía, D., Olavarria, L., Cerda, M., Montenegro, D., Ramírez, C., Nieto, R., Farías, G., & Slachevsky, A. (2026) Executive Dysfunction: A serious game for assessment in real-life contexts: Development and cross-sectional usability study	
Citation: Olivares, D., Martínez-Pernía, D., Olavarria, L., Cerda, M., Montenegro, D., Ramírez, C., Nieto, R., Farías, G., & Slachevsky, A. (2026). Executive Dysfunction: A serious game for assessment in real-life contexts: Development and cross-sectional usability study. JMIR Serious Games, 14, e94860.	
DOI / link	https://doi.org/10.2196/94860 Tags: executive function, cognitive assessment, serious game, ecological validity
P - Population	181 clinical and healthy participants
I - Intervention / exposure	Restaurant-based executive-function serious-game assessment
C - Comparator	Clinical/healthy groups as applicable
O - Outcomes	Planning, working memory, prospective memory, decision-making, social cognition, multitasking
S - Study design	Development/cross-sectional assessment study
Source: JMIR Serious Games Metadata status: Verified PICOS confidence: High	

Olivet, J., Haselden, M., Piscitelli, S., et al. (2019) Pilot study of a computer-based role-playing game for young people with psychosis	
Citation: Olivet, J., Haselden, M., Piscitelli, S., et al. (2019). Pilot study of a computer-based role-playing game for young people with psychosis. Early Intervention in Psychiatry, 13(4), 767-772.	
DOI / link	https://doi.org/10.1111/eip.12556 Tags: general video-game psychology
P - Population	Not reported in source summary
I - Intervention / exposure	Game-related exposure/intervention described in the article
C - Comparator	Not reported or not applicable
O - Outcomes	Outcome domain NR in source summary
S - Study design	Pilot/feasibility study
Source: VGTX research.pdf, p. 116 (source citation); source extraction p. 116 Metadata status: Source citation checked; DOI source-matched PICOS confidence: Moderate - provisional PICOS; confirm against full text	

Ott, M., & Pozzi, F. (2012) Digital games as creativity enablers for children	
Citation: Ott, M., & Pozzi, F. (2012). Digital games as creativity enablers for children. Behaviour & Information Technology, 31, 1011-1019.	
DOI / link	https://doi.org/10.1080/0144929x.2010.526148 Tags: cognition/executive function
P - Population	Not reported in source summary
I - Intervention / exposure	Digital games as creativity enablers for children
C - Comparator	Not reported or not applicable

Ott, M., & Pozzi, F. (2012)**Digital games as creativity enablers for children**

O - Outcomes	Cognition/executive function
S - Study design	Study design not fully reported in source summary

Source: VGTx research.pdf, p. 130

Metadata status: Externally verified where stated; otherwise source citation retained for later Zotero confirmation | PICOS confidence: Provisional

P | Alphabetical records

Pallavicini, F., Pepe, A., & Mantovani, F. (2021)**Commercial off-the-shelf video games for reducing stress and anxiety: Systematic review**

Citation: Pallavicini, F., Pepe, A., & Mantovani, F. (2021). Commercial off-the-shelf video games for reducing stress and anxiety: Systematic review. JMIR Mental Health, 8(8), e28150.

DOI / link	https://doi.org/10.2196/28150 Tags: mood/emotion
P - Population	Studies and participant populations included in the review
I - Intervention / exposure	Commercial off the shelf video games for reducing stress and anxiety: A PRISMA systematic review
C - Comparator	Varied comparators across included studies
O - Outcomes	Mood/emotion regulation
S - Study design	Systematic review

Source: VGTx research.pdf, p. 110 (source citation); source extraction p. 198

Metadata status: Source citation checked; DOI source-matched | PICOS confidence: Moderate - provisional PICOS; confirm against full text

Panagiotidis-Arrizabalaga, A., Lavalle, A., Teruel, M. A., Sanchis, J., Ruiz-Robledillo, N., & Costa-López, B. (2026)**Serious game-based attention assessment for attention-deficit/hyperactivity disorder in children and adolescents: Preliminary cross-sectional convergent validation study**

Citation: Panagiotidis-Arrizabalaga, A., Lavalle, A., Teruel, M. A., Sanchis, J., Ruiz-Robledillo, N., & Costa-López, B. (2026). Serious game-based attention assessment for attention-deficit/hyperactivity disorder in children and adolescents: Preliminary cross-sectional convergent validation study. JMIR Serious Games, 14, e80441.

DOI / link	https://doi.org/10.2196/80441 Tags: ADHD, attention, cognitive assessment, serious game
P - Population	58 children/adolescents aged 6–18
I - Intervention / exposure	Attention Robots serious-game assessment
C - Comparator	D2-R attention test/comparison groups
O - Outcomes	Attention performance and convergent validity
S - Study design	Preliminary cross-sectional validation study

Source: JMIR Serious Games

Metadata status: Verified | PICOS confidence: High

Pang, L., Mustafa, S. E., Gong, J., & Cheng, Y. (2026)**Social connectedness in mobile gaming: How family dynamics shape children's virtual interactions**

Citation: Pang, L., Mustafa, S. E., Gong, J., & Cheng, Y. (2026). Social connectedness in mobile gaming: How family dynamics shape children's virtual interactions. Frontiers in Psychiatry, 17, 1850835.

DOI / link	https://doi.org/10.3389/fpsy.2026.1850835 Tags: family gaming, social connectedness, emotion regulation, children
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P - Population	20 participants from 10 families
I - Intervention / exposure	Family interaction around mobile gameplay
C - Comparator	Restrictive, supportive co-play, and sibling-mediated patterns
O - Outcomes	Belonging, emotion regulation, resilience, conflict, social connection
S - Study design	Qualitative phenomenological interview study
Source: Frontiers in Psychiatry Metadata status: Verified PICOS confidence: High	

Parisod, H., Pakarinen, A., Kauhanen, L., Aromaa, M., Leppänen, V., Liukkonen, T., et al. (2014)
Promoting children's health with digital games: A review of reviews

Citation: Parisod, H., Pakarinen, A., Kauhanen, L., Aromaa, M., Leppänen, V., Liukkonen, T., et al. (2014). Promoting children's health with digital games: A review of reviews. Games for Health Journal, 3(3), 145-153.

DOI / link	https://doi.org/10.1089/g4h.2013.0086 Tags: therapy/counseling, therapeutic/serious games, mood/emotion, cognition/executive function
P - Population	children
I - Intervention / exposure	Game-related exposure/intervention described in the article
C - Comparator	Varied comparators across included studies
O - Outcomes	Mood/emotion regulation, Clinical symptoms/functioning, Cognition/executive function, Behavior/engagement
S - Study design	Review
Source: VGTX research.pdf, p. 114 (source citation); source extraction p. 114 Metadata status: DOI paired with citation in source; metadata partially normalized PICOS confidence: Moderate - based on source summary	

Park, S. Y., Sun, M. K., Roh, S., Soh, M. A., Lee, S. H., Kim, H., et al. (2016)
The effects of a virtual reality treatment program for online gaming addiction

Citation: Park, S. Y., Sun, M. K., Roh, S., Soh, M. A., Lee, S. H., Kim, H., et al. (2016). The effects of a virtual reality treatment program for online gaming addiction. Computer Methods and Programs in Biomedicine, 129, 99-108.

DOI / link	https://doi.org/10.1016/j.cmpb.2016.01.015 Tags: therapy/counseling, gaming disorder
P - Population	People with gaming-disorder symptoms or studies of gaming disorder
I - Intervention / exposure	The effects of a virtual reality treatment program for online gaming addiction
C - Comparator	Not reported or not applicable
O - Outcomes	Gaming-disorder symptoms or impairment
S - Study design	Study design not fully reported in source summary
Source: VGTX research.pdf, p. 130 Metadata status: Externally verified where stated; otherwise source citation retained for later Zotero confirmation PICOS confidence: Provisional	

Perez-Wiesner, M., Buhler, K.-M., Lopez-Moreno, J. A., & Lopez-Salmeron, M. D. (2025)
Effectiveness of psychological treatments for problematic use of internet, video games, social media and instant messaging: A systematic review and meta-analysis International Journal of Environmental Research and Public Health, 22(10), 1598.

Citation: Perez-Wiesner, M., Buhler, K.-M., Lopez-Moreno, J. A., & Lopez-Salmeron, M. D. (2025). Effectiveness of psychological treatments for problematic use of internet, video games, social media and instant messaging: A systematic review and meta-analysis International Journal of Environmental Research and Public Health, 22(10), 1598.

DOI / link	https://doi.org/10.3390/ijerph22101598 Tags: therapy/counseling, social/identity
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Perez-Wiesner, M., Buhler, K.-M., Lopez-Moreno, J. A., & Lopez-Salmeron, M. D. (2025)
Effectiveness of psychological treatments for problematic use of internet, video games, social media and instant messaging: A systematic review and meta-analysis *International Journal of Environmental Research and Public Health*, 22(10), 1598.

P - Population	Participants with problematic use of internet-related technologies
I - Intervention / exposure	Psychological treatments
C - Comparator	Control or alternative treatment
O - Outcomes	Problematic-use severity and associated psychological outcomes
S - Study design	Systematic review and meta-analysis

Source: vgtx, p. 264

Metadata status: PubMed/publisher record verified online | **PICOS confidence:** Moderate to high - based on source summary and verified citation metadata

Perry, Y., Werner-Seidler, A., Cleave, A., Mackinnon, A., King, C., Scott, J., Merry, S., Fleming, T., Stasiak, K., Christensen, H., & Batterham, P. J. (2017)

Preventing depression in final year secondary students: School-based randomized controlled trial

Citation: Perry, Y., Werner-Seidler, A., Cleave, A., Mackinnon, A., King, C., Scott, J., Merry, S., Fleming, T., Stasiak, K., Christensen, H., & Batterham, P. J. (2017). Preventing depression in final year secondary students: School-based randomized controlled trial. *Journal of Medical Internet Research*, 19(11), e369.

DOI / link	https://doi.org/10.2196/jmir.8241 Tags: depression prevention, adolescents, school-based intervention, gamified CBT, serious games, cluster randomized controlled trial
P - Population	540 final-year secondary students from 10 government schools in Sydney, Australia; mean age 16.7 years.
I - Intervention / exposure	SPARX-R, a seven-module online gamified CBT depression-prevention program delivered in school classrooms. Each module lasted approximately 20–30 minutes.
C - Comparator	lifeSTYLE, a seven-module attention-matched online active-control program covering general health and lifestyle topics without direct mental-health content.
O - Outcomes	Depressive symptoms measured with the Major Depression Inventory; generalized and social anxiety; depression stigma; suicidal thoughts and behaviors; academic outcomes; program completion and clinically significant change.
S - Study design	Two-arm cluster randomized controlled trial with post-intervention, six-month, and 18-month follow-up assessments.

Source: Researcher-provided correction set; JMIR.

Metadata status: Externally verified; journal, volume, issue, article number, title, and DOI matched. | **PICOS confidence:** High

Peñuelas-Calvo, I., Jiang-Lin, L. K., Girela-Serrano, B., Delgado-Gómez, D., Navarro-Jiménez, R., Baca-García, E., & Porras-Segovia, A. (2022)

Video Games for the Assessment and Treatment of ADHD: A Systematic Review

Citation: Peñuelas-Calvo, I., Jiang-Lin, L. K., Girela-Serrano, B., Delgado-Gómez, D., Navarro-Jiménez, R., Baca-García, E., & Porras-Segovia, A. (2022). Video Games for the Assessment and Treatment of ADHD: A Systematic Review. *European Child & Adolescent Psychiatry*, 31(1), 5-20.

DOI / link	https://doi.org/10.1007/s00787-020-01557-w Tags: therapy/counseling
P - Population	Studies and participant populations included in the review
I - Intervention / exposure	Video games for the assessment and treatment of ADHD: A systematic review
C - Comparator	Varied comparators across included studies
O - Outcomes	Clinical symptoms/functioning
S - Study design	Systematic review

Source: VGTx research.pdf, p. 124 (source citation); source extraction p. 138

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Phillips, W. R. (1991)**Video-Game Therapy**

Citation: Phillips, W. R. (1991). Video-game therapy. The New England Journal of Medicine, 325(17), 1256–1257.
<https://doi.org/10.1056/NEJM199110243251718>

DOI / link	https://doi.org/10.1056/nejm199110243251718 Tags: therapeutic/clinical, historical
P - Population	Single pediatric case (8-year-old boy)
I - Intervention / exposure	Video-game-assisted behavior management for a compulsive habit
C - Comparator	None
O - Outcomes	Behavioral change in the targeted compulsive habit
S - Study design	Case report/letter

Source: VGTX research.pdf, p. 143 (source citation); source extraction p. 143

Metadata status: Corrected against PubMed/NEJM; prior draft had incorrect author and page information | **PICOS confidence:** High - citation and case-report metadata verified against PubMed/NEJM

Phillips, C., et al. (2024)**Set players to stun: Inducing basic psychological need frustration within video games**

Citation: Phillips, C., et al. (2024). Set players to stun: Inducing basic psychological need frustration within video games. Interacting with Computers. Advance online publication.

DOI / link	https://doi.org/10.1093/iwc/iwae015 Tags: general video-game psychology
P - Population	Not reported in source summary
I - Intervention / exposure	Set players to stun: Inducing basic psychological need frustration within video games
C - Comparator	Not reported or not applicable
O - Outcomes	Outcome domain NR in source summary
S - Study design	Study design not fully reported in source summary

Source: VGTX research.pdf, p. 204 (source citation); source extraction p. 204

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Pine, R., Mbinta, J., Te Morenga, L., & Fleming, T. (2021)**A casual video game with psychological well-being concepts for young adolescents: Protocol for an acceptability and feasibility study**

Citation: Pine, R., Mbinta, J., Te Morenga, L., & Fleming, T. (2021). A casual video game with psychological well-being concepts for young adolescents: Protocol for an acceptability and feasibility study. JMIR Research Protocols, 10(8), e31588.

DOI / link	https://doi.org/10.2196/31588 Tags: therapeutic/serious games, adolescent mental health, mood/emotion
P - Population	Young adolescents recruited for an acceptability and feasibility study.
I - Intervention / exposure	Match Emoji, a casual mobile video game embedding brief psychological well-being concepts.
C - Comparator	No active comparator.
O - Outcomes	Recruitment and retention, gameplay engagement, acceptability, feasibility, and preliminary well-being indicators.
S - Study design	Protocol for a single-arm acceptability and feasibility study.

Source: Researcher-approved source abstract/summary and citation metadata.

Metadata status: Researcher-confirmed citation and DOI | **PICOS confidence:** High - PICOS confirmed from the approved protocol abstract

Pine, R., Mbinta, J., Te Morenga, L., & Fleming, T. (2024)**A novel casual video game with simple mental health and well-being concepts (Match Emoji): Mixed methods feasibility study**

Citation: Pine, R., Mbinta, J., Te Morenga, L., & Fleming, T. (2024). A novel casual video game with simple mental health and well-being concepts (Match Emoji): Mixed methods feasibility study. *JMIR Serious Games*, 12(1), e46697.

DOI / link	https://doi.org/10.2196/46697 Tags: therapeutic/serious games, adolescent mental health, mood/emotion
P - Population	Young adolescents who played Match Emoji in a real-world feasibility study.
I - Intervention / exposure	Brief repeated play of Match Emoji, which embeds simple mental-health and well-being concepts.
C - Comparator	No active comparator; pre-post and mixed-methods evaluation.
O - Outcomes	Acceptability, feasibility, engagement, perceived usefulness, and preliminary mental well-being outcomes.
S - Study design	Single-arm mixed-methods feasibility study.

Source: Researcher-approved source abstract/summary and citation metadata.

Metadata status: Researcher-confirmed citation and DOI | **PICOS confidence:** High - PICOS confirmed from the approved abstract/summary

Pine, R., Te Morenga, L., Olson, M., & Fleming, T. (2021)

Development of a casual video game (Match Emoji) with psychological well-being concepts for young adolescents

Citation: Pine, R., Te Morenga, L., Olson, M., & Fleming, T. (2021). Development of a casual video game (Match Emoji) with psychological well-being concepts for young adolescents. *Digital Health*, 7, 1–12.

DOI / link	https://doi.org/10.1177/20552076211047802 Tags: therapeutic/serious games, adolescent mental health, game design
P - Population	Young adolescents and stakeholders involved in the development process.
I - Intervention / exposure	Iterative design of Match Emoji, combining casual match-based gameplay with psychological well-being content.
C - Comparator	Alternative design concepts and iterative prototype feedback; no clinical comparator.
O - Outcomes	Design requirements, youth acceptability, usability, engagement, and integration of well-being messages.
S - Study design	Participatory and iterative game-development study.

Source: Researcher-approved source abstract/summary and citation metadata.

Metadata status: Researcher-confirmed citation and DOI | **PICOS confidence:** High - adapted PICOS confirmed from the approved development-paper abstract

Pinto, M. D., Greenblatt, A. M., Hickman, R. L., Rice, H. M., Thomas, T. L., & Clochesy, J. M. (2016)

Assessing the critical parameters of eSMART-MH: A promising avatar-based digital therapeutic intervention to reduce depressive symptoms

Citation: Pinto, M. D., Greenblatt, A. M., Hickman, R. L., Rice, H. M., Thomas, T. L., & Clochesy, J. M. (2016). Assessing the critical parameters of eSMART-MH: A promising avatar-based digital therapeutic intervention to reduce depressive symptoms. *Perspectives in Psychiatric Care*, 52(3), 157–168.

DOI / link	https://doi.org/10.1111/ppc.12112 Tags: depression, young adults, avatar-based intervention, digital therapeutics, clinical simulation, self-management, acceptability/feasibility
P - Population	Sixty young adults with depressive symptoms.
I - Intervention / exposure	eSMART-MH, a three-dimensional avatar-based depression self-management simulation in which participants interacted with virtual healthcare providers and a virtual health coach, practiced communicating about depression, and received tailored behavioral feedback.
C - Comparator	Attention-control condition using screen-based health education.
O - Outcomes	Participant-rated necessity, acceptability, feasibility, intervention fidelity, and safety of eSMART-MH, assessed using qualitative and quantitative data.

S - Study design	Mixed-methods randomized controlled study with a 12-week observation period.
Source: Researcher-provided correction set; Ovid.	
Metadata status: Externally verified; complete title, DOI, sample, design, and study purpose matched. PICOS confidence: High	

Plante, T. G., Aldridge, A., Bogden, R., & Hanelin, C. (2003) Might virtual reality promote the mood benefits of exercise?	
Citation: Plante, T. G., Aldridge, A., Bogden, R., & Hanelin, C. (2003). Might virtual reality promote the mood benefits of exercise? Computers in Human Behavior, 19(4), 495–509.	
DOI / link	https://doi.org/10.1016/S0747-5632(02)00074-2 Tags: mood/emotion, exergaming, virtual reality, exercise/physical activity, enjoyment, experimental study
P - Population	Eighty-eight university employees ages 20–67; 44 women and 44 men.
I - Intervention / exposure	One 30-minute session involving either moderate-intensity stationary cycling, playing a virtual-reality computer bicycle game without physical exercise, or interactive virtual-reality cycling while exercising at 60%–70% of maximum heart rate.
C - Comparator	Three-group comparison: stationary cycling alone, virtual-reality bicycle gameplay without exercise, and combined virtual-reality gameplay with stationary cycling.
O - Outcomes	Pre- and post-session energy, calmness, tension, and tiredness measured with the Activation-Deactivation Adjective Check List; enjoyment, perceived exertion, and cycling revolutions per minute.
S - Study design	Randomized three-arm, between-subjects, pretest–posttest laboratory experiment.
Source: Researcher-provided correction set; Bogdan Lab.	
Metadata status: Externally verified; DOI, publication metadata, sample, conditions, and outcomes matched. PICOS confidence: High	

Pontes, H. M., & Griffiths, M. D. (2015) Measuring DSM-5 Internet Gaming Disorder: Development and validation of a short psychometric scale	
Citation: Pontes, H. M., & Griffiths, M. D. (2015). Measuring DSM-5 Internet Gaming Disorder: Development and validation of a short psychometric scale. Computers in Human Behavior, 45, 137–143.	
DOI / link	https://doi.org/10.1016/j.chb.2014.12.006 Tags: gaming disorder
P - Population	People with gaming-disorder symptoms or studies of gaming disorder
I - Intervention / exposure	Measuring DSM-5 Internet Gaming Disorder.
C - Comparator	Not reported or not applicable
O - Outcomes	Gaming-disorder symptoms or impairment
S - Study design	Study design not fully reported in source summary
Source: VGTX research.pdf, p. 248	
Metadata status: Citation and DOI corrected during source audit PICOS confidence: Provisional	

Pope, A. T., & Palsson, O. S. (2001) Helping video games “rewire our minds” (NASA Tech Briefs)	
Citation: Pope, A. T., & Palsson, O. S. (2001). Helping video games “rewire our minds” (NASA Tech Briefs). NASA/ESA Conference on Adaptive Hardware and Systems. NASA NTRS.	
DOI / link	Missing or incomplete - retained for manual Zotero follow-up Tags: general video game psychology
P - Population	Not reported in source summary
I - Intervention / exposure	Helping video games “rewire our minds” (NASA Tech Briefs)
C - Comparator	Not reported or not applicable
O - Outcomes	Psychological, behavioral, cognitive, or clinical outcomes reported in the article
S - Study design	Study design not fully reported in source summary

Pope, A. T., & Palsson, O. S. (2001)

Helping video games “rewire our minds” (NASA Tech Briefs)

Source: VGTx research.pdf, p. 137

Metadata status: Source citation captured; DOI resolution not independently confirmed unless noted | **PICOS confidence:** Provisional

Poulus, et al. (2026)

Mental health and well-being in esports: A scoping review Applied Psychology.

Citation: Poulus, et al. (2026). Mental health and well-being in esports: A scoping review Applied Psychology.

DOI / link	https://doi.org/10.1111/apps.70055 Tags: mood/emotion, social/identity
P - Population	Esports participants represented in included studies
I - Intervention / exposure	Esports participation and related contexts
C - Comparator	Varied or not applicable
O - Outcomes	Depression, anxiety, stress, sleep, burnout, social functioning, and well-being
S - Study design	Scoping review

Source: vgtx, p. 265

Metadata status: Publisher/index record verified online | **PICOS confidence:** Moderate to high - based on source summary and verified citation metadata

Powers, K. L., Brooks, P. J., Aldrich, N. J., Palladino, M. A., & Alfieri, L. (2013)

Effects of video-game play on information processing: A meta-analytic investigation

Citation: Powers, K. L., Brooks, P. J., Aldrich, N. J., Palladino, M. A., & Alfieri, L. (2013). Effects of video-game play on information processing: A meta-analytic investigation. Psychonomic Bulletin & Review, 20(6), 1055-1079.

DOI / link	https://doi.org/10.3758/s13423-013-0418-z Tags: general video game psychology
P - Population	Not reported in source summary
I - Intervention / exposure	Effects of video-game play on information processing: A meta-analytic investigation
C - Comparator	Varied comparators across included studies or not applicable
O - Outcomes	Psychological, behavioral, cognitive, or clinical outcomes reported in the article
S - Study design	Review/theoretical synthesis

Source: VGTx research.pdf, p. 246

Metadata status: Citation and DOI corrected during source audit | **PICOS confidence:** Provisional

Prescott, A. T., Sargent, J. D., & Hull, J. G. (2018)

Metaanalysis of the relationship between violent video game play and physical aggression over time

Citation: Prescott, A. T., Sargent, J. D., & Hull, J. G. (2018). Metaanalysis of the relationship between violent video game play and physical aggression over time. Proceedings of the National Academy of Sciences, 115(40), 9882-9888.

DOI / link	https://doi.org/10.1073/pnas.1611617114 Tags: aggression/prosociality
P - Population	Not reported in source summary
I - Intervention / exposure	Metaanalysis of the relationship between violent video game play and physical aggression over time
C - Comparator	Not reported or not applicable
O - Outcomes	Aggression/prosocial behavior
S - Study design	Study design not fully reported in source summary

Source: Master Annotated Literature List / VGTx research.pdf, p. 247

Metadata status: Externally verified where stated; otherwise source citation retained for later Zotero confirmation | **PICOS confidence:** Provisional

Primack, B. A., et al (2018)

Videogame-based cognitive behavioral therapy for adolescents with substance use disorders Games for Health Journal, 7, 151-157.

Citation: Primack, B. A., et al (2018). Videogame-based cognitive behavioral therapy for adolescents with substance use disorders Games for Health Journal, 7, 151-157.

DOI / link	https://doi.org/10.1089/g4h.2017.0063 Tags: therapy/counseling, therapeutic/serious games, cognition/executive function
P - Population	adolescents
I - Intervention / exposure	Videogame-based cognitive behavioral therapy for adolescents with substance use disorders
C - Comparator	Not reported or not applicable
O - Outcomes	Clinical symptoms/functioning, Cognition/executive function, Behavior/engagement
S - Study design	Pilot/feasibility study

Source: vgtx, p. 147

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate to high - based on source summary and verified citation metadata

Proffitt, R., Alankus, G., Kelleher, C., & Engsberg, J. (2011)

Use of computer games as an intervention for stroke: A systematic review

Citation: Proffitt, R., Alankus, G., Kelleher, C., & Engsberg, J. (2011). Use of computer games as an intervention for stroke: A systematic review. Topics in Stroke Rehabilitation, 18(4), 417-427.

DOI / link	https://doi.org/10.1310/tsr1804-417 Tags: rehabilitation
P - Population	Studies and participant populations included in the review
I - Intervention / exposure	Use of computer games as an intervention for stroke: A systematic review
C - Comparator	Varied comparators across included studies
O - Outcomes	Outcome domain NR in source summary
S - Study design	Systematic review

Source: VGTX research.pdf, p. 118 (source citation); source extraction p. 118

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Prot, S., Anderson, C. A., Gentile, D. A., Warburton, W., & Wright, M. (2014)

The positive and negative effects of video game play

Citation: Prot, S., Anderson, C. A., Gentile, D. A., Warburton, W., & Wright, M. (2014). The positive and negative effects of video game play. In A. B. Jordan & D. Romer (Eds.), Media and the well-being of children and adolescents (pp. 109-129). Oxford University Press.

DOI / link	Missing or incomplete - PDF Tags: general video-game psychology, aggression/prosociality, cognition/executive function
P - Population	Children, adolescents, and other video-game players represented in the reviewed literature.
I - Intervention / exposure	Video-game play differentiated by content, context, duration, and player characteristics.
C - Comparator	Prosocial, educational, active, violent, excessive, and non-game exposures.
O - Outcomes	Learning, cognition, prosocial behavior, aggression, health, well-being, and problematic gaming.
S - Study design	Narrative review and book chapter.

Source: Researcher-approved source abstract/summary and citation metadata.

Metadata status: Researcher-confirmed chapter citation; DOI not supplied | **PICOS confidence:** Moderate to high - adapted PICOS confirmed from the approved chapter summary

Przybylski, A. K., Rigby, C. S., & Ryan, R. M. (2010)**A motivational model of video game engagement**

Citation: Przybylski, A. K., Rigby, C. S., & Ryan, R. M. (2010). A motivational model of video game engagement. *Review of General Psychology*, 14(2), 154-166.

DOI / link	https://doi.org/10.1037/a0019440 Tags: motivation/player experience
P - Population	Not reported in source summary
I - Intervention / exposure	A motivational model of video game engagement.
C - Comparator	Not reported or not applicable
O - Outcomes	Motivation, engagement, flow, or psychological needs
S - Study design	Study design not fully reported in source summary

Source: VGTX research.pdf, p. 247

Metadata status: Citation and DOI corrected during source audit | **PICOS confidence:** Provisional

Przybylski, A. K., & Weinstein, N. (2019)**Violent video game engagement is not associated with adolescents' aggressive behaviour: Evidence from a registered report**

Citation: Przybylski, A. K., & Weinstein, N. (2019). Violent video game engagement is not associated with adolescents' aggressive behaviour: Evidence from a registered report. *Royal Society Open Science*, 6(2), 171474.

DOI / link	https://doi.org/10.1098/rsos.171474 Tags: motivation/player experience, aggression/prosociality
P - Population	Not reported in source summary
I - Intervention / exposure	Violent video game engagement and aggressive behavior
C - Comparator	Not reported or not applicable
O - Outcomes	Aggression/prosocial behavior, Motivation, engagement, flow, or psychological needs
S - Study design	Study design not fully reported in source summary

Source: VGTX research.pdf, p. 247

Metadata status: Citation and DOI corrected during source audit | **PICOS confidence:** Provisional

Pujol, M., Caroux, L., Yang, A., Marchand, B., & Lemerrier, C. (2026)**Flow as a positive affective state with optimal activation: Converging physiological and self-report evidence in video games**

Citation: Pujol, M., Caroux, L., Yang, A., Marchand, B., & Lemerrier, C. (2026). Flow as a positive affective state with optimal activation: Converging physiological and self-report evidence in video games. *Ergonomics*. Advance online publication.

DOI / link	https://doi.org/10.1080/00140139.2026.2701903 Tags: flow, physiology, affect, difficulty, player experience
P - Population	Videogame players in the experimental sample
I - Intervention / exposure	Gameplay under manipulated difficulty
C - Comparator	Too-easy, optimal-challenge, too-difficult conditions
O - Outcomes	Flow, affect, arousal and physiological measures
S - Study design	Experimental gameplay study

Source: *Ergonomics*

Metadata status: Verified; exact N still needs extraction | **PICOS confidence:** High

Putri, T. H., Abidin, F. A., Dhamayanti, M., Luthfi, M., Andriyani, S., Hardiyati, H., & Suryani, S. (2026)**Regional disparities in self-harming behaviour among Indonesian adolescents in relation to online gaming addiction and cyberbullying victimization**

Citation: Putri, T. H., Abidin, F. A., Dhamayanti, M., Luthfi, M., Andriyani, S., Hardiyati, H., & Suryani, S. (2026). Regional disparities in self-harming behaviour among Indonesian adolescents in relation to online gaming addiction and cyberbullying victimization. *Journal of Multidisciplinary Healthcare*, 19.

DOI / link	https://doi.org/10.2147/JMDH.S628304 Tags: gaming addiction, self-harm, cyberbullying, adolescents
P - Population	1,742 Indonesian adolescents
I - Intervention / exposure	Online-gaming addiction and cyberbullying victimization
C - Comparator	Exposure/regional groups and adjusted models
O - Outcomes	Lifetime self-harming behavior
S - Study design	Cross-sectional survey

Source: *Journal of Multidisciplinary Healthcare*
Metadata status: Verified | PICOS confidence: High

Q | Alphabetical records

Quirosa-Galán, I., García-Bravo, S., Fabara-Rodríguez, A. C., Rodríguez-Pérez, M. P., Huertas-Hoyas, E., Pérez-Corrales, J., Fernández-Gómez, G., Donovan, M., & García-Bravo, C. (2025)
Video games in rehabilitation programs for people with Parkinson's disease: A systematic review

Citation: Quirosa-Galán, I., García-Bravo, S., Fabara-Rodríguez, A. C., Rodríguez-Pérez, M. P., Huertas-Hoyas, E., Pérez-Corrales, J., Fernández-Gómez, G., Donovan, M., & García-Bravo, C. (2025). Video games in rehabilitation programs for people with Parkinson's disease: A systematic review. *Applied Sciences*, 15(1), Article 311.

DOI / link	https://doi.org/10.3390/app15010311 Tags: rehabilitation, Parkinson's disease, therapeutic/serious games
P - Population	People with Parkinson's disease participating in game-based rehabilitation programs.
I - Intervention / exposure	Video games, exergames, or virtual-reality gaming used for rehabilitation.
C - Comparator	Conventional therapy, usual care, no intervention, or alternative game-based programs.
O - Outcomes	Balance, gait, mobility, motor symptoms, cognition, quality of life, adherence, and engagement.
S - Study design	Systematic review.

Source: Researcher-approved source abstract/summary and citation metadata.

Metadata status: Researcher-confirmed citation and DOI | PICOS confidence: High - PICOS confirmed from the approved review abstract/summary

R | Alphabetical records

Radunz, M., Stevens, M. W. R., Behm, S., Hameed, M., Bowden-Jones, H., Delfabbro, P., Demetrovics, Z., Higuchi, S., Potenza, M. N., Wölfling, K., Brandhorst, I., Bore, P., Claesdotter-Knutsson, E., González-Bueso, V., Herpertz, S., Dieris-Hirche, J., Hofstedt, A., Söderpalm Gordh, A., Jiménez-Murcia, S., . . . King, D. L. (2026)
Common practice elements of cognitive behavioral therapy for gaming disorder: A systematic review and expert panel evaluation

Citation: Radunz, M., Stevens, M. W. R., Behm, S., Hameed, M., Bowden-Jones, H., Delfabbro, P., Demetrovics, Z., Higuchi, S., Potenza, M. N., Wölfling, K., Brandhorst, I., Bore, P., Claesdotter-Knutsson, E., González-Bueso, V., Herpertz, S., Dieris-Hirche, J., Hofstedt, A.,

Söderpalm Gordh, A., Jiménez-Murcia, S., . . . King, D. L. (2026). Common practice elements of cognitive behavioral therapy for gaming disorder: A systematic review and expert panel evaluation. *Clinical Psychology Review*, 126, 102740.

DOI / link	https://doi.org/10.1016/j.cpr.2026.102740 Tags: gaming disorder, CBT, emotion regulation, treatment
P - Population	Gaming-disorder populations across 28 studies/22 CBT interventions
I - Intervention / exposure	CBT interventions/treatment components
C - Comparator	Individual, group and mixed CBT formats
O - Outcomes	Common treatment elements including emotion regulation, psychoeducation, cognitive restructuring
S - Study design	Systematic review plus expert panel

Source: *Clinical Psychology Review*

Metadata status: Verified | PICOS confidence: High

Ravaja, N., Turpeinen, M., Saari, T., Puttonen, S., & Kivikangas, J. (2008) The psychophysiology of video gaming: Phasic emotional responses to game events

Citation: Ravaja, N., Turpeinen, M., Saari, T., Puttonen, S., & Kivikangas, J. (2008). The psychophysiology of video gaming: Phasic emotional responses to game events. *Media Psychology*, 11(3), 187-211.

DOI / link	https://doi.org/10.1080/15213260801994236 Tags: mood/emotion
P - Population	Not reported in source summary
I - Intervention / exposure	The psychophysiology of video gaming: Phasic emotional responses to game events
C - Comparator	Not reported or not applicable
O - Outcomes	Mood/emotion regulation, Neural/physiological measures
S - Study design	Study design not fully reported in source summary

Source: VGTX research.pdf, p. 208 (source citation); source extraction p. 208

Metadata status: Source citation checked; DOI source-matched | PICOS confidence: Moderate - provisional PICOS; confirm against full text

Reinecke, L. (2009a) Games and recovery: The use of video and computer games to recuperate from stress and strain

Citation: Reinecke, L. (2009a). Games and recovery: The use of video and computer games to recuperate from stress and strain. *Journal of Media Psychology*, 21(3), 126-142.

DOI / link	https://doi.org/10.1027/1864-1105.21.3.126 Tags: mood/emotion, social/identity
P - Population	1,614 adults found that people frequently play games after work or school to recover from stress, with
I - Intervention / exposure	Games and recovery: The use of video and computer games to recuperate from stress and strain
C - Comparator	Not reported or not applicable
O - Outcomes	Mood/emotion regulation, Clinical symptoms/functioning, Social/identity
S - Study design	Study design not fully reported in source summary

Source: VGTX research.pdf, p. 209 (source citation); source extraction p. 209

Metadata status: Source citation checked; DOI source-matched | PICOS confidence: Moderate to high - based on source summary and verified citation metadata

Ribeiro, T., Veloso, A. I., & Brinson, P. (2026) Assessing empathy in digital games: Adaptation and validation of a scale to assess empathy for fictional characters in digital games

Citation: Ribeiro, T., Veloso, A. I., & Brinson, P. (2026). Assessing empathy in digital games: Adaptation and validation of a scale to assess empathy for fictional characters in digital games. In X. Fang (Ed.), HCI in Games: HCII 2026 (Lecture Notes in Computer Science, Vol. 16739, pp. 186–204). Springer.

DOI / link	https://doi.org/10.1007/978-3-032-30405-6_12 Tags: empathy, fictional characters, psychometrics, player experience
P - Population	301 players from 48 countries
I - Intervention / exposure	Adapted fictional-character empathy scale for digital games
C - Comparator	Alternative factor structures/construct dimensions
O - Outcomes	Reliability, validity, dimensions of character-directed empathy
S - Study design	Psychometric adaptation/validation study

Source: Springer HCII proceedings

Metadata status: Verified | PICOS confidence: High

Reinecke, L. (2009b)

Games at work: The recreational use of computer games during work hours

Citation: Reinecke, L. (2009b). Games at work: The recreational use of computer games during work hours. CyberPsychology & Behavior, 12(4), 461-465.

DOI / link	https://doi.org/10.1089/cpb.2009.0010 Tags: mood/emotion
P - Population	Not reported in source summary
I - Intervention / exposure	Games at work: The recreational use of computer games during work hours
C - Comparator	Not reported or not applicable
O - Outcomes	Mood/emotion regulation, Clinical symptoms/functioning, Behavior/engagement
S - Study design	Study design not fully reported in source summary

Source: VGTX research.pdf, p. 209 (source citation); source extraction p. 209

Metadata status: Source citation checked; DOI source-matched | PICOS confidence: Moderate - provisional PICOS; confirm against full text

Rieger, D., Frischlich, L., Wulf, T., Bente, G., & Kneer, J. (2015)

Eating ghosts: The underlying mechanisms of mood repair via interactive and noninteractive media

Citation: Rieger, D., Frischlich, L., Wulf, T., Bente, G., & Kneer, J. (2015). Eating ghosts: The underlying mechanisms of mood repair via interactive and noninteractive media. Psychology of Popular Media Culture, 4(2), 138–154.

DOI / link	https://doi.org/10.1037/ppm0000018 Tags: mood/emotion, mood repair, video games, media interactivity, psychophysiology, electrodermal activity
P - Population	Seventy-five adults, including 45 women; mean age 26.86 years. Most were university students.
I - Intervention / exposure	A sadness-induction film followed by five minutes of actively playing Pac-Man.
C - Comparator	Watching a matched Pac-Man gameplay video or completing a no-media rest condition.
O - Outcomes	Positive and negative mood repair, perceived task load, involvement, subjective arousal, and physiological arousal measured through electrodermal activity.
S - Study design	Randomized three-arm laboratory experiment with pre- and post-condition mood and arousal assessments.

Source: Researcher-provided correction set.

Metadata status: Externally verified; incorrect citation and DOI replaced. | PICOS confidence: High

Riva, G., Baños, R. M., Botella, C., Mantovani, F., & Gaggioli, A. (2016)**Transforming experience: The potential of augmented reality and virtual reality for enhancing personal and clinical change**

Citation: Riva, G., Baños, R. M., Botella, C., Mantovani, F., & Gaggioli, A. (2016). Transforming experience: The potential of augmented reality and virtual reality for enhancing personal and clinical change. *Frontiers in Psychiatry*, 7, Article 164.

DOI / link	https://doi.org/10.3389/fpsy.2016.00164 Tags: augmented reality, virtual reality, serious games, personal change, clinical change, presence, embodiment, digital mental health
P - Population	Behavioral-health and clinical populations represented across the reviewed AR and VR literature; no single study population.
I - Intervention / exposure	Augmented- and virtual-reality applications for personal and clinical change, including exposure therapy, rehabilitation, serious games, game-based depression interventions, and embodied virtual experiences.
C - Comparator	Varied across the systematic reviews and meta-analyses discussed; no unified comparator.
O - Outcomes	Clinical symptoms, fear and avoidance, pain, craving, rehabilitation outcomes, emotional engagement, presence, self-reflectiveness, personal efficacy, and mechanisms of personal change.
S - Study design	Conceptual narrative review incorporating a targeted search and synthesis of one AR systematic review and 27 VR systematic reviews or meta-analyses.

Source: Researcher-provided correction set.

Metadata status: Externally verified; DOI and publication metadata matched. | **PICOS confidence:** Moderate

Rivero, T. S., Herrera Núñez, L. M., Pires, E. U., & Amodeo Bueno, O. F. (2015)**ADHD rehabilitation through video gaming: A systematic review using PRISMA guidelines of the current findings and the associated risk of bias**

Citation: Rivero, T. S., Herrera Núñez, L. M., Pires, E. U., & Amodeo Bueno, O. F. (2015). ADHD rehabilitation through video gaming: A systematic review using PRISMA guidelines of the current findings and the associated risk of bias. *Frontiers in Psychiatry*, 6, 151.

DOI / link	https://doi.org/10.3389/fpsy.2015.00151 Tags: rehabilitation
P - Population	Studies and participant populations included in the review
I - Intervention / exposure	ADHD rehabilitation through video gaming: A systematic review (PRISMA) of current findings and associated risk of bias
C - Comparator	Varied comparators across included studies
O - Outcomes	Outcome domain NR in source summary
S - Study design	Systematic review

Source: VGTX research.pdf, p. 109 (source citation); source extraction p. 119

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Rodrigo-Yanguas, M., González-Tardón, C., Bella-Fernández, M., & Blasco-Fontecilla, H. (2022)**Serious video games: Angels or demons in patients with attention-deficit/hyperactivity disorder? A quasi-systematic review**

Citation: Rodrigo-Yanguas, M., González-Tardón, C., Bella-Fernández, M., & Blasco-Fontecilla, H. (2022). Serious video games: Angels or demons in patients with attention-deficit/hyperactivity disorder? A quasi-systematic review. *Frontiers in Psychiatry*, 13, 798480.

DOI / link	https://doi.org/10.3389/fpsy.2022.798480 Tags: cognition/executive function
P - Population	Studies and participant populations included in the review
I - Intervention / exposure	Serious video games: Angels or demons in patients with attention-deficit/hyperactivity disorder? A quasi-systematic review
C - Comparator	Varied comparators across included studies or not applicable
O - Outcomes	Cognition/executive function
S - Study design	Systematic review

Rodrigo-Yanguas, M., González-Tardón, C., Bella-Fernández, M., & Blasco-Fontecilla, H. (2022)
Serious video games: Angels or demons in patients with attention-deficit/hyperactivity disorder? A quasi-systematic review

Source: VGTX research.pdf, p. 110

Metadata status: Source citation captured; DOI resolution not independently confirmed unless noted | PICOS confidence: Provisional

Roepke, A. M., Jaffee, S. R., Riffle, O. M., McGonigal, J., Broome, R., & Maxwell, B. (2015)
Randomized controlled trial of SuperBetter, a smartphone-based/internet-based self-help tool to reduce depressive symptoms

Citation: Roepke, A. M., Jaffee, S. R., Riffle, O. M., McGonigal, J., Broome, R., & Maxwell, B. (2015). Randomized controlled trial of SuperBetter, a smartphone-based/internet-based self-help tool to reduce depressive symptoms. Games for Health Journal, 4(3), 235-246.

DOI / link	https://doi.org/10.1089/g4h.2014.0046 Tags: therapeutic/serious games, mood/emotion, cognition/executive function, neuroscience/neuropsychology, social/identity
P - Population	People with depression/depressive symptoms or included depression studies
I - Intervention / exposure	Game-related exposure/intervention described in the article
C - Comparator	controlled trial of SuperBetter, a smartphone-based/internet-based self-help tool to reduce depressive symptoms
O - Outcomes	Mood/emotion regulation, Clinical symptoms/functioning, Cognition/executive function, Social/identity
S - Study design	Randomized controlled trial

Source: VGTX research.pdf, p. 115 (source citation); source extraction p. 115

Metadata status: DOI paired with citation in source; metadata partially normalized | PICOS confidence: Moderate - provisional PICOS; confirm against full text

Rowland, D. P., Casey, L. M., Ganapathy, A., Cassimatis, M., & Clough, B. A. (2022)
A Decade in Review: A Systematic Review of Virtual Reality Interventions for Emotional Disorders

Citation: Rowland, D. P., Casey, L. M., Ganapathy, A., Cassimatis, M., & Clough, B. A. (2022). A Decade in Review: A Systematic Review of Virtual Reality Interventions for Emotional Disorders. Psychosocial Intervention, 31(1), 1-20.

DOI / link	https://doi.org/10.5093/pi2021a8 Tags: mood/emotion, social/identity
P - Population	Studies and participant populations included in the review
I - Intervention / exposure	A Decade in Review: A Systematic Review of Virtual Reality Interventions for Emotional Disorders
C - Comparator	Varied comparators across included studies
O - Outcomes	Mood/emotion regulation, Clinical symptoms/functioning, Social/identity
S - Study design	Systematic review

Source: VGTX research.pdf, p. 124 (source citation); source extraction p. 124

Metadata status: Source citation checked; DOI source-matched | PICOS confidence: Moderate - provisional PICOS; confirm against full text

Ruiz, M., Moreno, M., Girela-Serrano, B., Díaz-Oliván, I., Muñoz, L. J., González-Garrido, C., & Porras-Segovia, A. (2022)
Winning the game against depression: A systematic review of video games for the treatment of depressive disorders

Citation: Ruiz, M., Moreno, M., Girela-Serrano, B., Díaz-Oliván, I., Muñoz, L. J., González-Garrido, C., & Porras-Segovia, A. (2022). Winning the game against depression: A systematic review of video games for the treatment of depressive disorders. Current Psychiatry Reports, 24(1), 23-35.

DOI / link	https://doi.org/10.1007/s11920-022-01314-7 Tags: therapy/counseling, mood/emotion
P - Population	Studies and participant populations included in the review
I - Intervention / exposure	Winning the game against depression: A systematic review of video games for the treatment of depressive disorders
C - Comparator	Varied comparators across included studies or not applicable
O - Outcomes	Depression/depressive symptoms
S - Study design	Systematic review

Ruiz, M., Moreno, M., Girela-Serrano, B., Díaz-Oliván, I., Muñoz, L. J., González-Garrido, C., & Porras-Segovia, A. (2022)
Winning the game against depression: A systematic review of video games for the treatment of depressive disorders

Source: VGTx research.pdf, p. 110

Metadata status: Source citation captured; DOI resolution not independently confirmed unless noted | PICOS confidence: Provisional

Russoniello, C. V., O'Brien, K., & Parks, J. M. (2009)

The effectiveness of casual video games in improving mood and decreasing stress Journal of CyberTherapy and Rehabilitation, 2(1), 53-66.

Citation: Russoniello, C. V., O'Brien, K., & Parks, J. M. (2009). The effectiveness of casual video games in improving mood and decreasing stress Journal of CyberTherapy and Rehabilitation, 2(1), 53-66.

DOI / link	https://doi.org/10.3233/978-1-60750-017-9-189 Tags: mood/emotion, neuroscience/neuropsychology, measurement/methods
P - Population	69 adults; measure-specific subsamples varied
I - Intervention / exposure	20 minutes of Bejeweled II casual puzzle play
C - Comparator	Internet health-article control
O - Outcomes	Profile of Mood States, EEG frontal alpha, heart-rate variability
S - Study design	Randomized laboratory trial

Source: mood, p. 6; VGTx research.pdf, p. 247

Metadata status: Source summary and source citation checked; DOI retained as supplied | PICOS confidence: Moderate to high - based on source summary and verified citation metadata

Russoniello, C. V., Fish, M., & O'Brien, K. (2013)

The efficacy of casual videogame play in reducing clinical depression: a randomized controlled study

Citation: Russoniello, C. V., Fish, M., & O'Brien, K. (2013). The efficacy of casual videogame play in reducing clinical depression: a randomized controlled study. Games for Health Journal, 2(6), 341-346. Mary Ann Liebert (PubMed).

DOI / link	https://doi.org/10.1089/q4h.2013.0010 Tags: mood/emotion
P - Population	People with depression/depressive symptoms or included depression studies
I - Intervention / exposure	The efficacy of casual videogame play in reducing clinical depression: a randomized controlled study
C - Comparator	controlled study
O - Outcomes	Mood/emotion regulation, Clinical symptoms/functioning
S - Study design	Randomized controlled trial

Source: VGTx research.pdf, p. 135 (source citation); source extraction p. 135

Metadata status: Source citation checked; DOI source-matched | PICOS confidence: Moderate - provisional PICOS; confirm against full text

Russoniello, C. V., Fish, M. T., & O'Brien, K. (2019)

The efficacy of playing videogames compared with antidepressants in reducing treatment-resistant symptoms of depression

Citation: Russoniello, C. V., Fish, M. T., & O'Brien, K. (2019). The efficacy of playing videogames compared with antidepressants in reducing treatment-resistant symptoms of depression. Games for Health Journal, 8(5), 332-338.

DOI / link	https://doi.org/10.1089/q4h.2019.0032 Tags: therapy/counseling, mood/emotion
P - Population	People with depression/depressive symptoms or included depression studies
I - Intervention / exposure	The efficacy of playing videogames compared with antidepressants in reducing treatment-resistant symptoms of depression
C - Comparator	Control, treatment-as-usual, active comparison, or alternate condition as reported
O - Outcomes	Depression/depressive symptoms
S - Study design	Study design not fully reported in source summary

Source: VGTx research.pdf, p. 109

Metadata status: Source citation captured; DOI resolution not independently confirmed unless noted | PICOS confidence: Provisional

Ryan, R. M., Rigby, C. S., & Przybylski, A. (2006)**The motivational pull of video games: A self-determination theory approach**

Citation: Ryan, R. M., Rigby, C. S., & Przybylski, A. (2006). The motivational pull of video games: A self-determination theory approach. *Motivation and Emotion*, 30(4), 344-360.

DOI / link	https://doi.org/10.1007/s11031-006-9051-8 Tags: mood/emotion
P - Population	Not reported in source summary
I - Intervention / exposure	The motivational pull of video games: A self-determination theory approach
C - Comparator	N/A
O - Outcomes	Mood/emotion regulation, Behavior/engagement
S - Study design	Theory/framework

Source: VGTX research.pdf, p. 208 (source citation); source extraction p. 208

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

S | Alphabetical records

Sabermahani, F., Almasi-Dooghaee, M., & Sheikhtaheri, A. (2025)**Effectiveness of Serious Games in Evaluating Cognitive Status of the Elderly: A Systematic Review and Meta-Analysis**

Citation: Sabermahani, F., Almasi-Dooghaee, M., & Sheikhtaheri, A. (2025). Effectiveness of Serious Games in Evaluating Cognitive Status of the Elderly: A Systematic Review and Meta-Analysis. *Games for Health Journal*, 14(1), 1-10.

DOI / link	https://doi.org/10.1089/g4h.2023.0106 Tags: therapeutic/serious games, cognition/executive function
P - Population	Studies and participant populations included in the review
I - Intervention / exposure	Effectiveness of Serious Games in Evaluating Cognitive Status of the Elderly: A Systematic Review and Meta-Analysis
C - Comparator	Varied comparators across included studies
O - Outcomes	Cognition/executive function
S - Study design	Systematic review and meta-analysis

Source: VGTX research.pdf, p. 124 (source citation); source extraction p. 124

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Sadiyah, H., & Ahiruddin, A. (2026)**The impact of self-control on Internet Gaming Disorder among students**

Citation: Sadiyah, H., & Ahiruddin, A. (2026). The impact of self-control on Internet Gaming Disorder among students. *Journal of Counseling and Educational Research*, 3(1), 55-69.

DOI / link	https://doi.org/10.63203/jcerch.v3i1.533 Tags: gaming disorder, self-control, adolescents, students
P - Population	119 students/adolescents
I - Intervention / exposure	Self-control
C - Comparator	Variation in self-control
O - Outcomes	Internet Gaming Disorder symptoms
S - Study design	Cross-sectional correlational study

Source: Journal of Counseling and Educational Research

Metadata status: Verified | **PICOS confidence:** High

Saeedi, S., Ghazisaeedi, M., & Rezayi, S. (2021)

Applying game-based approaches for physical rehabilitation of poststroke patients: A systematic review

Citation: Saeedi, S., Ghazisaeedi, M., & Rezayi, S. (2021). Applying game-based approaches for physical rehabilitation of poststroke patients: A systematic review. Journal of Healthcare Engineering, 2021, Article 9928509.

DOI / link	https://doi.org/10.1155/2021/9928509 Tags: rehabilitation, therapeutic/serious games
P - Population	Post-stroke patients receiving physical rehabilitation in the included studies.
I - Intervention / exposure	Game-based approaches, including virtual-reality and exergame rehabilitation.
C - Comparator	Conventional rehabilitation, usual care, or non-game control conditions.
O - Outcomes	Upper-limb function, balance, gait, activities of daily living, motivation, and participation.
S - Study design	Systematic review.

Source: Researcher-approved source abstract/summary and citation metadata.

Metadata status: Researcher-confirmed citation and DOI | **PICOS confidence:** High - PICOS confirmed from the approved review abstract/summary

se

Schaetzle, J., Baumann, N., & Poeller, S. (2026)

The two faces of power remastered: Facets of explicit power motivation in Baldur's Gate 3

Citation: Schaetzle, J., Baumann, N., & Poeller, S. (2026). The two faces of power remastered: Facets of explicit power motivation in Baldur's Gate 3. In Proceedings of the 21st International Conference on the Foundations of Digital Games, Article 70, 1–5. ACM.

DOI / link	https://doi.org/10.1145/3815598.3815671 Tags: motivation, character creation, behavioral measurement, Baldur's Gate 3
P - Population	Laboratory participants creating Baldur's Gate 3 characters
I - Intervention / exposure	Explicit power-motivation facets
C - Comparator	Dominance-, leadership-, prosocial-oriented motive profiles
O - Outcomes	Character appearance and ability selections
S - Study design	Laboratory correlational behavioral study

Source: ACM FDG 2026

Metadata status: Verified; exact N needs extraction | **PICOS confidence:** High

Sarini, M., & Bocci, F. (2026)

A Normative Analytics Approach to Functional Component Assessment: Identifying VR Efficacy Within the Video Game Therapy® Methodology

Citation: Sarini, M., & Bocci, F. (2026). A normative analytics approach to functional component assessment: Identifying VR efficacy within the Video Game Therapy® methodology. Digital Health and Innovation, 1(1), Article 4.

DOI / link	https://doi.org/10.3390/dhi1010004 Tags: therapy/counseling, virtual reality, measurement/methods
P - Population	One adult clinical participant and 20 healthy adults
I - Intervention / exposure	Three weekly VR sessions using Horizon Call of the Mountain
C - Comparator	Normative reference group and within-case change across sessions
O - Outcomes	Anxiety, psychological well-being, flow, and reliable change

S - Study design	Single-case repeated-measures study with normative comparison
Source: Sarini and Bocci (2026), full text	
Metadata status: Citation and DOI verified PICOS confidence: High - extracted from full text	

Saposnik, G., Teasell, R., Mamdani, M., Hall, J., McIlroy, W., Cheung, D., Thorpe, K. E., Cohen, L. G., Bayley, M., & Stroke Outcome Research Canada (SORCan) Working Group. (2010)
Effectiveness of virtual reality using Wii gaming technology in stroke rehabilitation: A pilot randomized clinical trial and proof of principle

Citation: Saposnik, G., Teasell, R., Mamdani, M., Hall, J., McIlroy, W., Cheung, D., Thorpe, K. E., Cohen, L. G., Bayley, M., & Stroke Outcome Research Canada (SORCan) Working Group. (2010). Effectiveness of virtual reality using Wii gaming technology in stroke rehabilitation: A pilot randomized clinical trial and proof of principle. *Stroke*, 41(7), 1477–1484.

DOI / link	https://doi.org/10.1161/STROKEAHA.110.584979 Tags: rehabilitation, therapeutic/serious games
P - Population	Adults receiving stroke rehabilitation with upper-extremity impairment after stroke.
I - Intervention / exposure	Eight 60-minute sessions of Nintendo Wii virtual-reality gaming over 2 weeks, provided alongside conventional rehabilitation.
C - Comparator	Dose-matched recreational therapy using activities such as cards, bingo, and Jenga.
O - Outcomes	Feasibility and safety; upper-extremity motor function and task performance, including standardized motor assessments.
S - Study design	Pilot randomized controlled clinical trial and proof-of-principle study.

Source: Researcher-approved source abstract/summary and citation metadata.

Metadata status: Researcher-confirmed citation and DOI | **PICOS confidence:** High - PICOS confirmed from the approved abstract/summary

Saposnik, G., Levin, M., & Stroke Outcome Research Canada (SORCan) Working Group. (2011)
Virtual reality in stroke rehabilitation: A meta-analysis and implications for clinicians

Citation: Saposnik, G., Levin, M., & Stroke Outcome Research Canada (SORCan) Working Group. (2011). Virtual reality in stroke rehabilitation: A meta-analysis and implications for clinicians. *Stroke*, 42(5), 1380–1386.

DOI / link	https://doi.org/10.1161/STROKEAHA.110.605451 Tags: stroke, upper-limb rehabilitation, video games, virtual reality, game-based rehabilitation, neuroscience/neuropsychology
P - Population	Adults with post-stroke upper-limb motor impairment across 12 studies, totaling 195 participants.
I - Intervention / exposure	Virtual-reality and video-game-based upper-limb rehabilitation, generally delivered as an adjunct to conventional stroke rehabilitation.
C - Comparator	Conventional rehabilitation, alternative control conditions, or pre-intervention performance; varied across the included studies.
O - Outcomes	Upper-limb motor impairment and motor function, including Fugl-Meyer Assessment, Box and Block Test, and other functional motor measures.
S - Study design	Meta-analysis of 12 studies: five randomized controlled trials and seven observational pretest–posttest studies.

Source: Researcher-provided correction set.

Metadata status: Externally verified; group authorship, DOI, publication metadata, sample, and design matched. | **PICOS confidence:** High

Scheibe, K. E., & Erwin, M. (1979)
The computer as alter

Citation: Scheibe, K. E., & Erwin, M. (1979). The computer as alter. *The Journal of Social Psychology*, 108(1), 103–109.

DOI / link	https://doi.org/10.1080/00224545.1979.9711967 Tags: social/identity, behavior/engagement, general video-game psychology
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P - Population	Forty male and female undergraduates.
I - Intervention / exposure	A series of games played at a live CRT console while the computer displayed varying degrees of apparent intelligence; spontaneous verbalizations were recorded.
C - Comparator	Game conditions varying the computer's displayed degree of intelligence.
O - Outcomes	Spontaneous verbal reactions and personification of the computer; 39 of 40 participants showed evidence of treating it as a social other.
S - Study design	Laboratory experiment with recorded verbal-protocol observations.
Source: Publisher/PubMed abstract and citation metadata. Metadata status: Citation, DOI, volume, issue, pages, sample, procedure, and primary finding verified against the abstract record PICOS confidence: High - core PICOS confirmed from the publisher/PubMed abstract	

Scholten, H., Malmberg, M., Lobel, A., Engels, R. C., & Granic, I. (2016) A randomized controlled trial to test the effectiveness of an immersive 3D video game for anxiety prevention among adolescents	
Citation: Scholten, H., Malmberg, M., Lobel, A., Engels, R. C., & Granic, I. (2016). A randomized controlled trial to test the effectiveness of an immersive 3D video game for anxiety prevention among adolescents. PLoS ONE, 11(1), e0147763.	
DOI / link	https://doi.org/10.1371/journal.pone.0147763 Tags: mood/emotion
P - Population	adolescents
I - Intervention / exposure	A randomized controlled trial to test the effectiveness of an immersive 3D video game for anxiety prevention among adolescents
C - Comparator	controlled trial to test the effectiveness of an immersive 3D video game for anxiety prevention among adolescents
O - Outcomes	Mood/emotion regulation
S - Study design	Randomized controlled trial
Source: VGTX research.pdf, p. 117 (source citation); source extraction p. 117 Metadata status: Source citation checked; DOI source-matched PICOS confidence: Moderate to high - based on source summary and verified citation metadata	

Schoneveld, E. A., Lichtwarck-Aschoff, A., & Granic, I. (2018) Preventing childhood anxiety disorders: Is an applied game as effective as a cognitive behavioral therapy-based program?	
Citation: Schoneveld, E. A., Lichtwarck-Aschoff, A., & Granic, I. (2018). Preventing childhood anxiety disorders: Is an applied game as effective as a cognitive behavioral therapy-based program? Prevention Science, 19, 220–232.	
DOI / link	https://doi.org/10.1007/s11121-017-0843-8 Tags: therapeutic/serious games, anxiety, mood/emotion
P - Population	Children with elevated anxiety symptoms or risk for anxiety disorders.
I - Intervention / exposure	MindLight, an applied game integrating evidence-based anxiety-management mechanisms.
C - Comparator	A cognitive behavioral therapy-based prevention program.
O - Outcomes	Child anxiety symptoms and maintenance of effects at postintervention and follow-up.
S - Study design	Randomized comparative effectiveness trial.
Source: Researcher-approved source abstract/summary and citation metadata. Metadata status: Researcher-confirmed citation and DOI PICOS confidence: High - PICOS confirmed from the approved abstract/summary	

Schrank, F. A., et al (2016)**Using Minecraft to teach cognitive restructuring in child and adolescent psychotherapy Journal of Child and Family Studies, 25, 4108-4118.**

Citation: Schrank, F. A., et al (2016). Using Minecraft to teach cognitive restructuring in child and adolescent psychotherapy Journal of Child and Family Studies, 25, 4108-4118.

DOI / link <https://doi.org/10.1007/s10826-016-0522-y>
Tags: therapy/counseling, cognition/executive function

P - Population Children and/or adolescents

I - Intervention / exposure Game-related exposure/intervention described in the article

C - Comparator Not reported or not applicable

O - Outcomes Clinical symptoms/functioning, Cognition/executive function

S - Study design Pilot/feasibility study

Source: vgtx, p. 146

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Schrier, K. (2011)**Ethical Thinking and Video Games: The Practice of Ethics in Fable III**

Citation: Schrier, K. (2011). Ethical Thinking and Video Games: The Practice of Ethics in Fable III. Doctoral dissertation, Teachers College, Columbia University.

DOI / link **Missing or incomplete - retained for manual Zotero follow-up**
Tags: ethics, moral cognition, dissertation, Fable III

P - Population Participants and gameplay contexts described in the dissertation; exact sample pending full-text review

I - Intervention / exposure Ethical decision-making during play of Fable III

C - Comparator Game situations, player choices, or participant groups as reported

O - Outcomes Ethical thinking, moral reasoning, and player decision-making

S - Study design Doctoral dissertation / empirical game-studies research

Source: Kat Schrier CV with publications (2024), pp. 1–5; user-requested contemporary author coverage patch

Metadata status: Added directly from the supplied CV. DOI or stable URL included only when stated in the CV; missing identifiers retained for Zotero follow-up. | **PICOS confidence:** Moderate - title and degree source verified from CV; full methods pending dissertation review

Schrier, K. (2012)**Avatar Gender and Ethical Thinking in Fable III**

Citation: Schrier, K. (2012). Avatar Gender and Ethical Thinking in Fable III. Bulletin of Science, Technology & Society, 32(5), 375–383.

DOI / link **Missing or incomplete - retained for manual Zotero follow-up**
Tags: ethics, avatar identity, moral cognition, Fable III

P - Population Fable III players or study participants; exact sample pending full-text review

I - Intervention / exposure Avatar gender and ethical decisions in Fable III

C - Comparator Avatar-gender or player-group comparisons as reported

O - Outcomes Ethical thinking and moral decision-making

S - Study design Empirical game-studies article

Source: Kat Schrier CV with publications (2024), pp. 1–5; user-requested contemporary author coverage patch

Metadata status: Added directly from the supplied CV. DOI or stable URL included only when stated in the CV; missing identifiers retained for Zotero follow-up. | **PICOS confidence:** Moderate - citation from CV; full methods pending review

Schrier, K., & Shaenfield, D. (2016)**Collaboration and emotion in Way**

Citation: Schrier, K., & Shaenfield, D. (2016). Collaboration and emotion in Way. In S. Y. Tettegah & W. D. Huang (Eds.), Emotions, technology, and digital games (pp. 289–312). Academic Press.

DOI / link	https://doi.org/10.1016/B978-0-12-801738-8.00012-9 Tags: collaboration, emotion, empathy, nonverbal communication, multiplayer games, cooperative games, game design
P - Population	Four participants observed while playing the online multiplayer game Way.
I - Intervention / exposure	Synchronous cooperative play in Way, where paired players used avatars, movement, gestures, and nonverbal cues to teach one another and complete collaborative tasks.
C - Comparator	No comparator.
O - Outcomes	Collaborative problem-solving, interpretation of partners' emotions, nonverbal communication, attachment to the collaborating partner, and design themes for cooperative games.
S - Study design	Small exploratory observational study with qualitative thematic analysis.
Source: Researcher-provided correction set; Academic Press. Metadata status: Externally verified; year, book title, editors, pages, publisher, DOI, sample, and study description corrected. PICOS confidence: High	

Schrier, K. (2015) Emotion, Empathy and Ethical Thinking in Fable III

Citation: Schrier, K. (2015). Emotion, Empathy and Ethical Thinking in Fable III. In S. Tettegah & W. Huang (Eds.), Emotion, Technology, and Games, Elsevier.

DOI / link	Missing or incomplete - retained for manual Zotero follow-up Tags: emotion, empathy, ethics, Fable III, book chapter
P - Population	Players and examples discussed in the chapter
I - Intervention / exposure	Emotion and ethical choice in Fable III
C - Comparator	N/A or as discussed
O - Outcomes	Empathy, emotional experience, and ethical thinking
S - Study design	Scholarly book chapter
Source: Kat Schrier CV with publications (2024), pp. 1–5; user-requested contemporary author coverage patch Metadata status: Added directly from the supplied CV. DOI or stable URL included only when stated in the CV; missing identifiers retained for Zotero follow-up. PICOS confidence: High for bibliographic source from CV; chapter methods/content pending review	

Schrier, K. (2015) EPIC: A Framework for Using Video Games for Ethics Education

Citation: Schrier, K. (2015). EPIC: A Framework for Using Video Games for Ethics Education. Journal of Moral Education, 44(4), 393–424.

DOI / link	Missing or incomplete - retained for manual Zotero follow-up Tags: ethics education, game-based learning, framework
P - Population	Learners and educational game contexts covered by the framework
I - Intervention / exposure	Use of video games for ethics education
C - Comparator	N/A
O - Outcomes	Ethical thinking, moral education, and instructional design principles
S - Study design	Conceptual framework / scholarly article
Source: Kat Schrier CV with publications (2024), pp. 1–5; user-requested contemporary author coverage patch Metadata status: Added directly from the supplied CV. DOI or stable URL included only when stated in the CV; missing identifiers retained for Zotero follow-up. PICOS confidence: High for citation and article type from CV; full framework details pending review	

Schrier, K. (2017) Designing Games for Real-World Moral Problem Solving

Citation: Schrier, K. (2017). Designing Games for Real-World Moral Problem Solving. Games & Culture.
<https://doi.org/10.1177/1555412017711514>

DOI / link	https://doi.org/10.1177/1555412017711514 Tags: ethics, moral problem solving, game design
P - Population	Game players/design contexts discussed in the article

Schrier, K. (2017)**Designing Games for Real-World Moral Problem Solving**

I - Intervention / exposure	Game design for real-world moral problem solving
C - Comparator	N/A or design comparisons as reported
O - Outcomes	Moral reasoning, problem solving, and design principles
S - Study design	Scholarly article / design research

Source: Kat Schrier CV with publications (2024), pp. 1–5; user-requested contemporary author coverage patch

Metadata status: Added directly from the supplied CV. DOI or stable URL included only when stated in the CV; missing identifiers retained for Zotero follow-up. | **PICOS confidence:** High - citation and DOI stated in CV

Schrier, K. (2017)**Designing Role-Playing Video Games for Ethical Thinking**

Citation: Schrier, K. (2017). Designing Role-Playing Video Games for Ethical Thinking. Educational Technology Research and Development, 65(4), 831–868.

DOI / link	Missing or incomplete - retained for manual Zotero follow-up Tags: ethics, role-playing games, game design, education
P - Population	Learners/players in role-playing game contexts; exact sample pending full-text review
I - Intervention / exposure	Role-playing video-game design for ethical thinking
C - Comparator	Design conditions or participant responses as reported
O - Outcomes	Ethical thinking and instructional design outcomes
S - Study design	Empirical/design research article

Source: Kat Schrier CV with publications (2024), pp. 1–5; user-requested contemporary author coverage patch

Metadata status: Added directly from the supplied CV. DOI or stable URL included only when stated in the CV; missing identifiers retained for Zotero follow-up. | **PICOS confidence:** Moderate - citation from CV; DOI and full methods pending review

Schrier, K., & Farber, M. (2019)**Open Questions for Empathy and Games**

Citation: Schrier, K., & Farber, M. (2019). Open Questions for Empathy and Games. Proceedings of Connected Learning Conference '18, ETC Press, Boston, MA.

DOI / link	Missing or incomplete - retained for manual Zotero follow-up Tags: empathy, games, conference proceeding
P - Population	Literature and game contexts considered in the proceeding
I - Intervention / exposure	Games and empathy
C - Comparator	N/A
O - Outcomes	Open research questions concerning empathy and games
S - Study design	Peer-reviewed conference proceeding

Source: Kat Schrier CV with publications (2024), pp. 1–5; user-requested contemporary author coverage patch

Metadata status: Added directly from the supplied CV. DOI or stable URL included only when stated in the CV; missing identifiers retained for Zotero follow-up. | **PICOS confidence:** High for bibliographic source from CV; full proceeding details pending review

Schrier, K. (2019)**Reducing Bias Through Gaming**

Citation: Schrier, K. (2019). Reducing Bias Through Gaming. G/A/M/E Journal. <https://www.gamejournal.it/reducing-bias-through-gaming/>

DOI / link	https://www.gamejournal.it/reducing-bias-through-gaming/ Tags: bias reduction, empathy, social impact, games
P - Population	Players and game examples discussed in the article
I - Intervention / exposure	Games designed or used to reduce bias
C - Comparator	N/A or as discussed
O - Outcomes	Bias, perspective-taking, empathy, and social change
S - Study design	Scholarly article / conceptual analysis

Schrier, K. (2019)**Reducing Bias Through Gaming**

Source: Kat Schrier CV with publications (2024), pp. 1–5; user-requested contemporary author coverage patch

Metadata status: Added directly from the supplied CV. DOI or stable URL included only when stated in the CV; missing identifiers retained for Zotero follow-up. | **PICOS confidence:** High for title and stable URL from CV

Schrier, K., & Farber, M. (2021)**A Systematic Literature Review of “Empathy” and “Games”**

Citation: Schrier, K., & Farber, M. (2021). A Systematic Literature Review of “Empathy” and “Games”. Journal of Gaming & Virtual Worlds.

DOI / link	Missing or incomplete - retained for manual Zotero follow-up Tags: empathy, systematic review, games
P - Population	Studies and participant populations included in the review
I - Intervention / exposure	Games associated with empathy-related outcomes
C - Comparator	Varied across included studies
O - Outcomes	Empathy, perspective-taking, compassion, and related constructs
S - Study design	Systematic literature review

Source: Kat Schrier CV with publications (2024), pp. 1–5; user-requested contemporary author coverage patch

Metadata status: Added directly from the supplied CV. DOI or stable URL included only when stated in the CV; missing identifiers retained for Zotero follow-up. | **PICOS confidence:** High for citation and study type from CV; volume/pages/DOI pending verification

Schrier, K. (2024)**How Do We Teach Eudaimonia Through Games?**

Citation: Schrier, K. (2024). How Do We Teach Eudaimonia Through Games?. Proceedings of ACM Foundations of Digital Games 2024, Worcester, MA.

DOI / link	Missing or incomplete - retained for manual Zotero follow-up Tags: eudaimonia, ethics, well-being, conference proceeding
P - Population	Learners/players and game contexts discussed in the proceeding
I - Intervention / exposure	Games used to teach or support eudaimonia
C - Comparator	N/A or as discussed
O - Outcomes	Eudaimonic well-being, ethical learning, and educational design
S - Study design	Peer-reviewed conference paper / proceeding

Source: Kat Schrier CV with publications (2024), pp. 1–5; user-requested contemporary author coverage patch

Metadata status: Added directly from the supplied CV. DOI or stable URL included only when stated in the CV; missing identifiers retained for Zotero follow-up. | **PICOS confidence:** High for title and proceeding source from CV; final publication details pending verification

Schuermans, A. A., Nijhof, K. S., Engels, R. C., & Granic, I. (2015)**A pilot study evaluating “Dojo,” a videogame intervention for youths with externalizing and anxiety problems**

Citation: Schuurmans, A. A., Nijhof, K. S., Engels, R. C., & Granic, I. (2015). A pilot study evaluating “Dojo,” a videogame intervention for youths with externalizing and anxiety problems. Games for Health Journal, 4(6), 401-408.

DOI / link	https://doi.org/10.1089/g4h.2014.0138 Tags: mood/emotion
P - Population	Children and/or adolescents
I - Intervention / exposure	A pilot study evaluating “Dojo,” a videogame intervention for youths with externalizing and anxiety problems
C - Comparator	Not reported or not applicable
O - Outcomes	Mood/emotion regulation
S - Study design	Pilot/feasibility study

Source: VGTX research.pdf, p. 115 (source citation); source extraction p. 115

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Schuurmans, A. A. T., Nijhof, K. S., Engels, R. C., & Granic, I. (2018)**Using a videogame intervention to reduce anxiety and externalizing problems among youths in residential care: An initial randomized controlled trial**

Citation: Schuurmans, A. A. T., Nijhof, K. S., Engels, R. C., & Granic, I. (2018). Using a videogame intervention to reduce anxiety and externalizing problems among youths in residential care: An initial randomized controlled trial. *Journal of Psychopathology and Behavioral Assessment*, 40(2), 344-354.

DOI / link	https://doi.org/10.1007/s10862-017-9638-2 Tags: mood/emotion
P - Population	Children and/or adolescents
I - Intervention / exposure	Using a videogame intervention to reduce anxiety and externalizing problems among youths in residential care: An initial randomized controlled trial
C - Comparator	controlled trial
O - Outcomes	Mood/emotion regulation, Behavior/engagement
S - Study design	Randomized controlled trial

Source: VGTX research.pdf, p. 117 (source citation); source extraction p. 117

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Schwabe, L., et al (2011)**Interactive video-game distraction with voice commands during painful medical procedures *Clinical Journal of Pain*, 27, 712-718.**

Citation: Schwabe, L., et al (2011). Interactive video-game distraction with voice commands during painful medical procedures *Clinical Journal of Pain*, 27, 712-718.

DOI / link	https://doi.org/10.1097/ajp.0b013e31820f1f7e Tags: rehabilitation
P - Population	children
I - Intervention / exposure	Game-related exposure/intervention described in the article
C - Comparator	compared with passive conditions
O - Outcomes	Clinical symptoms/functioning
S - Study design	Study design not fully reported in source summary

Source: vgtx, p. 145

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate to high - based on source summary and verified citation metadata

Segev, A., & Barak, A. (2016)**Possible biases of researchers' attitudes toward video games: Publication trends analysis of the medical literature (1980-2013)**

Citation: Segev, A., & Barak, A. (2016). Possible biases of researchers' attitudes toward video games: Publication trends analysis of the medical literature (1980-2013). *Journal of Medical Internet Research*, 18(7), e196. JMIR.

DOI / link	https://doi.org/10.2196/jmir.5935 Tags: general video-game psychology
P - Population	Studies and participant populations included in the review
I - Intervention / exposure	Possible biases of researchers' attitudes toward video games: Publication trends analysis of the medical literature (1980-2013)
C - Comparator	Varied comparators across included studies
O - Outcomes	Clinical symptoms/functioning
S - Study design	Systematic review and meta-analysis

Source: VGTX research.pdf, p. 139 (source citation); source extraction p. 139

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Selnow, G. W. (1984)**Playing videogames: The electronic friend**

Citation: Selnow, G. W. (1984). Playing videogames: The electronic friend. Journal of Communication, 34(2), 148-156.

DOI / link	https://doi.org/10.1111/j.1460-2466.1984.tb02166.x
	Tags: mood/emotion, social/identity

P - Population	Not reported in source summary
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I - Intervention / exposure	Playing videogames: The electronic friend
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C - Comparator	Not reported or not applicable
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O - Outcomes	Mood/emotion regulation, Social/identity
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S - Study design	Study design not fully reported in source summary
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Source: VGTX research.pdf, p. 210 (source citation); source extraction p. 210

Metadata status: Source citation checked; DOI source-matched | PICOS confidence: Moderate - provisional PICOS; confirm against full text

Sevinçli, M. C., Ioannou, N., & Poeller, S. (2026)**Toxic behavior in League of Legends through the lens of psychological reactance theory: The role of communication styles**

Citation: Sevinçli, M. C., Ioannou, N., & Poeller, S. (2026). Toxic behavior in League of Legends through the lens of psychological reactance theory: The role of communication styles. In Proceedings of the 21st International Conference on the Foundations of Digital Games, Article 4, 1–12. ACM.

DOI / link	https://doi.org/10.1145/3815598.3815643
	Tags: toxicity, reactance, communication, social psychology

P - Population	60 League of Legends players
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I - Intervention / exposure	Freedom-threatening in-game communication
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C - Comparator	Autonomy-supportive communication
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O - Outcomes	Psychological reactance, retaliatory/toxic-response tendencies
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S - Study design	Randomized between-groups experiment
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Source: ACM FDG 2026

Metadata status: Verified | PICOS confidence: High

Sherer, M. (1994)**The effect of computerized simulation games on the moral development of youth in distress**

Citation: Sherer, M. (1994). The effect of computerized simulation games on the moral development of youth in distress. Computers in Human Services, 11(1-2), 81-95.

DOI / link	Missing or incomplete - retained for manual Zotero follow-up
	Tags: mood/emotion

P - Population	Children and/or adolescents
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I - Intervention / exposure	The effect of computerized simulation games on the moral development of youth in distress
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C - Comparator	Not reported or not applicable
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O - Outcomes	Stress or psychophysiological arousal
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S - Study design	Study design not fully reported in source summary
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Source: VGTX research.pdf, p. 107

Metadata status: Externally verified where stated; otherwise source citation retained for later Zotero confirmation | PICOS confidence: Provisional

Sherry, J. L. (2004)**Flow and media enjoyment**

Citation: Sherry, J. L. (2004). Flow and media enjoyment. Communication Theory, 14(4), 328-347.

Sherry, J. L. (2004)
Flow and media enjoyment

DOI / link	https://doi.org/10.1111/j.1468-2885.2004.tb00318.x Tags: mood/emotion
P - Population	Not reported in source summary
I - Intervention / exposure	Game-related exposure/intervention described in the article
C - Comparator	N/A
O - Outcomes	Mood/emotion regulation, Behavior/engagement
S - Study design	Theory/framework

Source: VGTX research.pdf, p. 217 (source citation); source extraction p. 217

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Shute, V. J., Ventura, M., & Ke, F. (2015)

The power of play: The effects of Portal 2 and Lumosity on cognitive and noncognitive skills

Citation: Shute, V. J., Ventura, M., & Ke, F. (2015). The power of play: The effects of Portal 2 and Lumosity on cognitive and noncognitive skills. Computers & Education, 80, 58–67.

DOI / link	https://doi.org/10.1016/j.compedu.2014.08.013 Tags: cognition/executive function, motivation/player experience, commercial games
P - Population	77 undergraduate students randomly assigned to a Portal 2 condition or a Lumosity condition.
I - Intervention / exposure	Eight hours of Portal 2 gameplay.
C - Comparator	Eight hours of Lumosity computerized brain-training activities.
O - Outcomes	Problem solving, spatial skills, and persistence. Portal 2 participants showed an advantage over Lumosity on all three composite measures and pretest-to-posttest gains on specific small- and large-scale spatial measures.
S - Study design	Randomized pretest-posttest comparative experiment.

Source: Publisher article record and author-hosted full-text PDF; DOI verified.

Metadata status: Publisher metadata, abstract, and author-hosted article checked; DOI source-matched | **PICOS confidence:** High.

Silvern, S. B., & Williamson, P. A. (1987)

The effects of video game play on young children's aggression, fantasy, and prosocial behavior

Citation: Silvern, S. B., & Williamson, P. A. (1987). The effects of video game play on young children's aggression, fantasy, and prosocial behavior. Journal of Applied Developmental Psychology, 8(4), 453–462. (Study found increased aggression and anxiety after violent game play in children.).

DOI / link	Missing or incomplete - retained for manual Zotero follow-up Tags: mood/emotion, aggression/prosociality
P - Population	Not reported in source summary
I - Intervention / exposure	The effects of video game play on young children's aggression, fantasy, and prosocial behavior
C - Comparator	Not reported or not applicable
O - Outcomes	Anxiety, Aggression/prosocial behavior
S - Study design	Study design not fully reported in source summary

Source: VGTX research.pdf, p. 208

Metadata status: Source citation captured; DOI resolution not independently confirmed unless noted | **PICOS confidence:** Provisional

Smirni, D., Garufo, E., Di Falco, L., & Lavanco, G. (2021)

The playing brain: The impact of video games on cognition and behavior in pediatric age at the time of lockdown: A systematic review

Citation: Smirni, D., Garufo, E., Di Falco, L., & Lavanco, G. (2021). The playing brain: The impact of video games on cognition and behavior in pediatric age at the time of lockdown: A systematic review. Pediatric Reports, 13(3), 401–415.

DOI / link	https://doi.org/10.3390/pediatric13030047 Tags: cognition/executive function, behavior/engagement, pediatric
P - Population	Children and adolescents represented in studies of video-game play and pediatric development.
I - Intervention / exposure	Video-game use and play characteristics, with attention to lockdown-related gaming conditions.
C - Comparator	Different levels or types of gaming, non-gaming groups, or temporal comparisons across included studies.
O - Outcomes	Cognition, attention, executive function, behavior, emotion, social functioning, and problematic gaming.
S - Study design	Systematic review.
Source: Researcher-approved source abstract/summary and citation metadata. Metadata status: Researcher-confirmed citation and DOI PICOS confidence: High - PICOS confirmed from the approved review abstract/summary	

Snodgrass, J. G., Lacy, M. G., Dengah, H. F., Fagan, J., & Most, D. (2014)**A vacation from your mind: Problematic online gaming is a stress response**

Citation: Snodgrass, J. G., Lacy, M. G., Dengah, H. F., Fagan, J., & Most, D. (2014). A vacation from your mind: Problematic online gaming is a stress response. Computers in Human Behavior, 38, 248-260.

DOI / link	https://doi.org/10.1016/j.chb.2014.06.004 Tags: mood/emotion
P - Population	Not reported in source summary
I - Intervention / exposure	A vacation from your mind: Problematic online gaming is a stress response
C - Comparator	Not reported or not applicable
O - Outcomes	Mood/emotion regulation, Clinical symptoms/functioning, Behavior/engagement
S - Study design	Study design not fully reported in source summary
Source: VGTx research.pdf, p. 211 (source citation); source extraction p. 211 Metadata status: Source citation checked; DOI source-matched PICOS confidence: Moderate - provisional PICOS; confirm against full text	

Stauffer, M. (2020)**Video games in counseling and therapy: A narrative review**

Citation: Stauffer, M. (2020). Video games in counseling and therapy: A narrative review. Journal of Creativity in Mental Health, 15(4), 495-511.

DOI / link	https://doi.org/10.1080/15401383.2020.1732333 Tags: therapy/counseling, therapeutic/serious games, mood/emotion, cognition/executive function, neuroscience/neuropsychology
P - Population	Studies and participant populations included in the review
I - Intervention / exposure	Video games in counseling and therapy: A narrative review
C - Comparator	Varied comparators across included studies
O - Outcomes	Mood/emotion regulation, Clinical symptoms/functioning, Cognition/executive function, Behavior/engagement
S - Study design	Review
Source: VGTx research.pdf, p. 122 (source citation); source extraction p. 122 Metadata status: Source citation checked; DOI source-matched PICOS confidence: Moderate - provisional PICOS; confirm against full text	

Stevens, M. W. R., et al. (2021)**Global prevalence of gaming disorder: Meta-analysis.**

Citation: Stevens, M. W. R., et al. (2021). Global prevalence of gaming disorder: Meta-analysis.

DOI / link	Missing or incomplete - retained for manual Zotero follow-up Tags: gaming disorder
P - Population	Studies and participant populations included in the review

Stevens, M. W. R., et al. (2021)

Global prevalence of gaming disorder: Meta-analysis.

I - Intervention / exposure	Global prevalence of gaming disorder: Meta-analysis.
C - Comparator	Varied comparators across included studies or not applicable
O - Outcomes	Gaming-disorder symptoms or impairment
S - Study design	Meta-analysis

Source: VGTx research.pdf, p. 248

Metadata status: Source citation captured; DOI resolution not independently confirmed unless noted | **PICOS confidence:** Provisional

Stratton, R., & Sandbulte, J. (2026)

Reclaiming play in digital mental health: A scoping review of play-oriented gamification for stress in college students

Citation: Stratton, R., & Sandbulte, J. (2026). Reclaiming play in digital mental health: A scoping review of play-oriented gamification for stress in college students. In X. Fang (Ed.), *HCI in games: HCII 2026* (Lecture Notes in Computer Science, Vol. 16739, pp. 225–243). Springer.
https://doi.org/10.1007/978-3-032-30405-6_14

DOI / link	https://doi.org/10.1007/978-3-032-30405-6_14 Tags: therapeutic/serious games, mood/emotion, behavior/engagement, game design/HCI
P - Population	Sixty-six empirical studies published from 2013 to 2025 concerning digital mental-health systems and gamified stress support for college students.
I - Intervention / exposure	Gamification and play-oriented design in digital mental health, including incentive mechanics such as points, streaks, and progression and play-oriented elements such as narrative exploration and self-expression.
C - Comparator	Incentive-driven gamification compared conceptually with approaches emphasizing intrinsic motivation, agency, interpretation, and meaningful play.
O - Outcomes	Engagement and perceived benefits, along with reported pressure, disengagement, diminished meaning, agency, self-expression, exploration, and design opportunities for play-oriented digital mental health.
S - Study design	PRISMA-ScR-guided scoping review with qualitative synthesis of 66 empirical studies.

Source: Springer Nature chapter abstract and publisher citation metadata.

Metadata status: Citation, DOI, editor, proceedings title, LNCS volume, pages, review size, publication range, PRISMA-ScR method, and abstract findings verified against Springer Nature | **PICOS confidence:** Moderate to high - core review PICOS verified from the publisher abstract; full chapter was not available in the publisher preview

Stokke, S. S., Stenseng, F., Morin, A. H., Hygen, B. W., Wichstrøm, L., Steinsbekk, S., Dybendal, B. H., & Skalická, V. (2025)

Digital gaming and academic achievement: Within-person relations from age 10 to 16 in a Norwegian birth cohort

Citation: Stokke, S. S., Stenseng, F., Morin, A. H., Hygen, B. W., Wichstrøm, L., Steinsbekk, S., Dybendal, B. H., & Skalická, V. (2025). Digital gaming and academic achievement: Within-person relations from age 10 to 16 in a Norwegian birth cohort. *Media Psychology*. Advance online publication.

DOI / link	https://doi.org/10.1080/15213269.2025.2576017 Tags: academic achievement, children/adolescents, longitudinal research
P - Population	813 children from a Norwegian birth cohort, assessed at ages 10, 12, 14, and 16; 50.4% boys.
I - Intervention / exposure	Self-reported digital gaming time across four longitudinal waves.
C - Comparator	Within-person deviations from each child's typical gaming time and academic achievement across waves; sex and socioeconomic status included as covariates.
O - Outcomes	Teacher-reported academic achievement. Within-person changes in gaming did not predict later changes in achievement, and achievement changes did not predict later gaming; no significant sex differences were identified.
S - Study design	Six-year longitudinal cohort study using a random-intercept cross-lagged panel model.

Source: Publisher full-text/abstract record: *Media Psychology*; DOI verified.

Metadata status: Publisher metadata and full abstract checked; DOI source-matched | **PICOS confidence:** High for citation, sample, variables, outcomes, and longitudinal model.

Strojny, A., & Strojny, P. (2026)

Post-gaming return to reality: A key factor in predicting the positive and negative outcomes of escapism

Citation: Strojny, A., & Strojny, P. (2026). Post-gaming return to reality: A key factor in predicting the positive and negative outcomes of escapism. *Frontiers in Psychiatry*, 17, 1735108.

DOI / link	https://doi.org/10.3389/fpsy.2026.1735108 Tags: escapism, post-gaming return, wellbeing, gaming disorder, psychological needs
P - Population	Study 1 N = 259; Study 2 N = 193 active gamers
I - Intervention / exposure	Post-Gaming Return and escapism motives
C - Comparator	Different PGR/escapism patterns
O - Outcomes	Mood, psychological needs, vitality, life satisfaction, gaming-disorder symptoms
S - Study design	Two cross-sectional psychometric/association studies

Source: Frontiers in Psychiatry
Metadata status: Verified | **PICOS confidence:** High

Sullivan, S., et al (2022)

Game-based digital therapeutics for anxiety disorders: A scoping review *Journal of Anxiety Disorders*, 83, 102455.

Citation: Sullivan, S., et al (2022). Game-based digital therapeutics for anxiety disorders: A scoping review *Journal of Anxiety Disorders*, 83, 102455.

DOI / link	https://doi.org/10.1016/j.janxdis.2021.102455 Tags: therapy/counseling, therapeutic/serious games, mood/emotion
P - Population	Studies and participant populations included in the review
I - Intervention / exposure	Game-related exposure/intervention described in the article
C - Comparator	Varied comparators across included studies
O - Outcomes	Mood/emotion regulation, Clinical symptoms/functioning
S - Study design	Scoping review

Source: vgtx, p. 150

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Sun, Y., & Gong, Z. (2026)

The cortical structural mediators of cognitive enhancement in computer game players: Evidence from Mendelian randomization *Games for Health Journal*.

Citation: Sun, Y., & Gong, Z. (2026). The cortical structural mediators of cognitive enhancement in computer game players: Evidence from Mendelian randomization *Games for Health Journal*.

DOI / link	https://doi.org/10.1177/2161783x251414838 Tags: cognition/executive function, neuroscience/neuropsychology, social/identity
P - Population	Genetic and cortical-structure datasets
I - Intervention / exposure	Genetically proxied computer-gaming exposure
C - Comparator	Genetic-instrument contrasts
O - Outcomes	Cognitive function and cortical surface-area mediation
S - Study design	Mendelian-randomization mediation study

Source: vgtx, p. 266

Metadata status: PubMed/publisher record verified online | **PICOS confidence:** Moderate to high - based on source summary and verified citation metadata

Sun, Z., Xu, Y., Zhen, C., Lin, Y.-S., Thorogood, M., Lasserre, P., Dulic, A., & Smith, M. (2026)

Struggle as flow: Challenge, design, and experience in Soulslike games

Citation: Sun, Z., Xu, Y., Zhen, C., Lin, Y.-S., Thorogood, M., Lasserre, P., Dulic, A., & Smith, M. (2026). Struggle as flow: Challenge, design, and experience in Soulslike games. In X. Fang (Ed.), *HCI in Games: HCII 2026* (Lecture Notes in Computer Science, Vol. 16739, pp. 244–255). Springer.

DOI / link	https://doi.org/10.1007/978-3-032-30405-6_15 Tags: Soulslike, flow, challenge, resilience, player experience
P - Population	600 highly rated Steam reviews of Elden Ring, Sekiro, and Dark Souls III
I - Intervention / exposure	Difficulty, failure, and challenge in Soulslike games
C - Comparator	Experiences/themes across three games
O - Outcomes	Flow, mastery, resilience, interpretations of failure and challenge
S - Study design	Qualitative analysis of player reviews
Source: Springer HCII proceedings Metadata status: Verified PICOS confidence: High	

Szturm, T., Betker, A. L., Moussavi, Z., & Goodman, V. (2011)

Effects of an interactive computer game exercise regimen on balance impairment in community-dwelling older adults: A randomized trial

Citation: Szturm, T., Betker, A. L., Moussavi, Z., & Goodman, V. (2011). Effects of an interactive computer game exercise regimen on balance impairment in community-dwelling older adults: A randomized trial. *Physical Therapy*, 91(10), 1449-1462.

DOI / link	https://doi.org/10.2522/ptj.20090205 Tags: therapy/counseling, rehabilitation
P - Population	older adults
I - Intervention / exposure	Effects of an interactive computer game exercise regimen on balance impairment in community-dwelling older adults: A randomized trial
C - Comparator	Control/comparison condition NR in source summary
O - Outcomes	Clinical symptoms/functioning
S - Study design	Randomized controlled trial
Source: VGTX research.pdf, p. 113 (source citation); source extraction p. 113 Metadata status: Source citation checked; DOI source-matched PICOS confidence: Moderate - provisional PICOS; confirm against full text	

Sánchez, R. P., & Bartel, C. M. (2015)

Feasibility and acceptability of “Arise”: An online substance abuse relapse prevention game

Citation: Sánchez, R. P., & Bartel, C. M. (2015). Feasibility and acceptability of “Arise”: An online substance abuse relapse prevention game. *Games for Health Journal*, 4(2), 136-144.

DOI / link	https://doi.org/10.1089/g4h.2014.0015 Tags: general video-game psychology
P - Population	Not reported in source summary
I - Intervention / exposure	Game-related exposure/intervention described in the article
C - Comparator	Not reported or not applicable
O - Outcomes	Behavior/engagement
S - Study design	Study design not fully reported in source summary
Source: VGTX research.pdf, p. 117 (source citation); source extraction p. 117 Metadata status: Source citation checked; DOI source-matched PICOS confidence: Moderate - provisional PICOS; confirm against full text	

T | Alphabetical records

Takahashi, N., Ono, T., Omori, Y., Iizumi, M., Kato, H., Kasuno, S., Persing, B., & Tsuchiya, K. J. (2024)

Assessment of Executive Functions Using a 3D Video Game in Children and Adolescents with ADHD

Citation: Takahashi, N., Ono, T., Omori, Y., Iizumi, M., Kato, H., Kasuno, S., Persing, B., & Tsuchiya, K. J. (2024). Assessment of Executive Functions Using a 3D Video Game in Children and Adolescents with ADHD. *Frontiers in Psychiatry*, 15, 1407703.

Takahashi, N., Ono, T., Omori, Y., Iizumi, M., Kato, H., Kasuno, S., Persing, B., & Tsuchiya, K. J. (2024)
Assessment of Executive Functions Using a 3D Video Game in Children and Adolescents with ADHD

DOI / link	https://doi.org/10.3389/fpsy.2024.1407703 Tags: cognition/executive function
P - Population	children
I - Intervention / exposure	Assessment of executive functions using a 3D-video game in children and adolescents with ADHD
C - Comparator	Not reported or not applicable
O - Outcomes	Cognition/executive function
S - Study design	Study design not fully reported in source summary

Source: VGTX research.pdf, p. 124 (source citation); source extraction p. 136

Metadata status: Source citation checked; DOI source-matched | PICOS confidence: Moderate to high - based on source summary and verified citation metadata

Tan, J. J. L., & Hong, R. Y. (2026)

Effects of a one-week temporary gaming abstinence and gaming-focused expressive writing intervention on gaming behaviours: A randomised controlled trial

Citation: Tan, J. J. L., & Hong, R. Y. (2026). Effects of a one-week temporary gaming abstinence and gaming-focused expressive writing intervention on gaming behaviours: A randomised controlled trial. Computers in Human Behavior Reports, 22, 101144.

DOI / link	https://doi.org/10.1016/j.chbr.2026.101144 Tags: problematic gaming, expressive writing, abstinence, emotion regulation
P - Population	290 young adult gamers
I - Intervention / exposure	Gaming-focused expressive writing plus 7-day gaming abstinence
C - Comparator	Control/usual gaming
O - Outcomes	Gaming time, maladaptive cognitions, problematic-gaming symptoms, emotion dysregulation
S - Study design	Randomized controlled trial with follow-up

Source: Computers in Human Behavior Reports

Metadata status: Verified | PICOS confidence: High

Tang, J., Xiao, Y., Lin, X., Man, S. S., & Chan, A. H. S. (2026)

Application of emotional companionship games for mental health: Perspective of university students

Citation: Tang, J., Xiao, Y., Lin, X., Man, S. S., & Chan, A. H. S. (2026). Application of emotional companionship games for mental health: Perspective of university students. In V. G. Duffy (Ed.), Digital human modeling and applications in health, safety, ergonomics and risk management (Lecture Notes in Computer Science, Vol. 16720, pp. 261–273). Springer.

DOI / link	https://doi.org/10.1007/978-3-032-29842-3_17 Tags: mental health, emotional support, therapeutic gaming, acceptability
P - Population	20 university students
I - Intervention / exposure	Experiences and perceptions of emotional-companionship games
C - Comparator	None
O - Outcomes	Adoption, usefulness, ease of use, mental-health literacy, social/environmental influences
S - Study design	Qualitative grounded-theory interview study

Source: Springer

Metadata status: Verified | PICOS confidence: High

Tatla, S. K., Radomski, A., Cheung, J., Maron, M., & Jarus, T. (2014)**Wii-habilitation for balance: a randomized clinical trial in children with acquired brain injury**

Citation: Tatla, S. K., Radomski, A., Cheung, J., Maron, M., & Jarus, T. (2014). Wii-habilitation for balance: a randomized clinical trial in children with acquired brain injury. *Developmental Neurorehabilitation*, 17(1), 1-15.

DOI / link <https://doi.org/10.3109/17518423.2012.740508>
Tags: neuroscience/neuropsychology, rehabilitation

P - Population	children
I - Intervention / exposure	Game-related exposure/intervention described in the article
C - Comparator	Control/comparison condition NR in source summary
O - Outcomes	Clinical symptoms/functioning, Neural/physiological measures
S - Study design	Randomized controlled trial

Source: VGTX research.pdf, p. 113 (source citation); source extraction p. 113

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Tchernin, C., Deronsart, N., Sharma, K., Fanourakis, M., Frachi, Y., & Chanel, G. (2026)**Beyond self-reports: Predicting electrodermal arousal from gameplay and physiological features**

Citation: Tchernin, C., Deronsart, N., Sharma, K., Fanourakis, M., Frachi, Y., & Chanel, G. (2026). Beyond self-reports: Predicting electrodermal arousal from gameplay and physiological features. In X. Fang (Ed.), *HCI in Games: HCII 2026 (Lecture Notes in Computer Science, Vol. 16740, pp. 242–261)*. Springer.

DOI / link https://doi.org/10.1007/978-3-032-30408-7_14
Tags: physiology, electrodermal activity, arousal, gameplay measurement

P - Population	Participants represented in the AMuCS and RAGA gameplay datasets
I - Intervention / exposure	Gameplay plus physiological/contextual features
C - Comparator	Prediction models/datasets
O - Outcomes	Self-reported and electrodermal arousal
S - Study design	Secondary-data machine-learning study

Source: Springer HCII proceedings

Metadata status: Verified | **PICOS confidence:** High

Torres-Malpica, C., et al (2023)**Video game interventions for depression: A systematic review and meta-analysis *Psychiatry Research*, 317, 114889.**

Citation: Torres-Malpica, C., et al (2023). Video game interventions for depression: A systematic review and meta-analysis *Psychiatry Research*, 317, 114889.

DOI / link <https://doi.org/10.1016/j.psychres.2022.114889>
Tags: mood/emotion

P - Population	Studies and participant populations included in the review
I - Intervention / exposure	Video game interventions for depression: A systematic review and meta-analysis
C - Comparator	Varied comparators across included studies
O - Outcomes	Mood/emotion regulation, Clinical symptoms/functioning
S - Study design	Systematic review and meta-analysis

Source: vgtx, p. 150

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Tramoni, M., Giudici, L., Mancini, S., et al. (2026)

The incredible adventures of Apollo and Rosetta in space: Training executive functions in children with attention-deficit/hyperactivity disorder *Applied Neuropsychology: Child*.

Citation: Tramoni, M., Giudici, L., Mancini, S., et al. (2026). The incredible adventures of Apollo and Rosetta in space: Training executive functions in children with attention-deficit/hyperactivity disorder *Applied Neuropsychology: Child*.

DOI / link <https://doi.org/10.1080/21622965.2026.2672445>
Tags: cognition/executive function

P - Population 34 children with ADHD

I - Intervention / exposure Apollo and Rosetta video-game executive-function training

C - Comparator Control condition reported in article

O - Outcomes Inhibition, working memory, and cognitive flexibility

S - Study design Randomized pilot trial

Source: new_2024_2026

Metadata status: PubMed/publisher record verified online | **PICOS confidence:** Moderate to high - based on source summary and verified citation metadata

Tsui, T. Y. L., DeFrance, K., Khalid-Khan, S., Granic, I., & Hollenstein, T. (2021)

Reductions of anxiety symptoms, state anxiety, and anxious arousal in youth playing the videogame MindLight compared to online cognitive behavioral therapy

Citation: Tsui, T. Y. L., DeFrance, K., Khalid-Khan, S., Granic, I., & Hollenstein, T. (2021). Reductions of anxiety symptoms, state anxiety, and anxious arousal in youth playing the videogame MindLight compared to online cognitive behavioral therapy. *Games for Health Journal*, 10(5), 330–338.

DOI / link <https://doi.org/10.1089/g4h.2020.0083>
Tags: therapeutic/serious games, anxiety, mood/emotion

P - Population Youth with elevated anxiety symptoms.

I - Intervention / exposure Playing MindLight, a therapeutic videogame targeting anxiety.

C - Comparator Online cognitive behavioral therapy.

O - Outcomes Anxiety symptoms, state anxiety, and anxious arousal.

S - Study design Randomized comparative intervention study.

Source: Researcher-approved source abstract/summary and citation metadata.

Metadata status: Researcher-confirmed citation and DOI | **PICOS confidence:** High - PICOS confirmed from the approved abstract/summary

Turner, W. A., & Casey, L. M. (2014)

Outcomes associated with virtual reality in psychological interventions: Where are we now? *Clinical Psychology Review*, 34(8), 634-644.

Citation: Turner, W. A., & Casey, L. M. (2014). Outcomes associated with virtual reality in psychological interventions: Where are we now? *Clinical Psychology Review*, 34(8), 634-644.

DOI / link <https://doi.org/10.1016/j.cpr.2014.10.003>
Tags: general video-game psychology

P - Population Not reported in source summary

I - Intervention / exposure Virtual-reality components in psychological interventions

C - Comparator Varied comparators across included studies

O - Outcomes Clinical symptoms/functioning

S - Study design Review

Source: VGTX research.pdf, p. 122 (source citation); source extraction p. 122

Metadata status: Citation and DOI normalized from source record | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Tyack, A., & Mekler, E. D. (2020)

Self-determination theory in HCI games research: Current uses and open questions

Citation: Tyack, A., & Mekler, E. D. (2020). Self-determination theory in HCI games research: Current uses and open questions. In Proceedings of the 2020 CHI Conference on Human Factors in Computing Systems (pp. 1–22). Association for Computing Machinery.

DOI / link	https://doi.org/10.1145/3313831.3376723 Tags: motivation/player experience, game design
P - Population	HCI and game-studies publications applying self-determination theory.
I - Intervention / exposure	Use of autonomy, competence, relatedness, need satisfaction, and motivation constructs in games research.
C - Comparator	Comparisons across operationalizations, study designs, game contexts, and theoretical applications.
O - Outcomes	Patterns of theory use, measurement choices, conceptual gaps, and open research questions.
S - Study design	Systematic or scoping review of HCI games research.

Source: Researcher-approved source abstract/summary and citation metadata.

Metadata status: Researcher-confirmed citation and DOI | **PICOS confidence:** High - adapted PICOS confirmed from the approved review abstract/summary

U | Alphabetical records

Ubaradka, A., & Khanganba, S. P. (2026)

Habitual engagement with violent video games does not translate virtual aggression to real-world emotional processing: Insights from gaze behaviour metrics

Citation: Ubaradka, A., & Khanganba, S. P. (2026). Habitual engagement with violent video games does not translate virtual aggression to real-world emotional processing: Insights from gaze behaviour metrics. Humanities and Social Sciences Communications, 13, Article 592.

DOI / link	https://doi.org/10.1057/s41599-026-06772-5 Tags: violent videogames, emotion recognition, eye tracking, aggression
P - Population	60 habitual gamers; 30 violent/FPS and 30 nonviolent-game players
I - Intervention / exposure	Habitual violent/FPS videogame engagement
C - Comparator	Nonviolent-game players
O - Outcomes	Facial-emotion recognition, response time, gaze, aggression
S - Study design	Comparative laboratory study

Source: Humanities and Social Sciences Communications

Metadata status: Verified | **PICOS confidence:** High

V | Alphabetical records

Vajawat, B., Varshney, P., & Banerjee, D. (2021)

Digital gaming interventions in psychiatry: Evidence, applications and challenges

Citation: Vajawat, B., Varshney, P., & Banerjee, D. (2021). Digital gaming interventions in psychiatry: Evidence, applications and challenges. Psychiatry Research, 295, 113585.

DOI / link	https://doi.org/10.1016/j.psychres.2020.113585 Tags: general video-game psychology
P - Population	Not reported in source summary
I - Intervention / exposure	Digital gaming interventions in psychiatry: Evidence, applications and challenges
C - Comparator	Not reported or not applicable

Vajawat, B., Varshney, P., & Banerjee, D. (2021)
Digital gaming interventions in psychiatry: Evidence, applications and challenges

O - Outcomes	Outcome domain NR in source summary
S - Study design	Study design not fully reported in source summary

Source: VGTX research.pdf, p. 122 (source citation); source extraction p. 122

Metadata status: Source citation checked; DOI source-matched | PICOS confidence: Moderate - provisional PICOS; confirm against full text

Väkevä, J., Vornhagen, J. B., Rautalahti, H., & Lindqvist, J. (2026)

“An experience that could not be found anywhere else”: Resonance as an explanatory concept for player experience research and game design

Citation: Väkevä, J., Vornhagen, J. B., Rautalahti, H., & Lindqvist, J. (2026). “An experience that could not be found anywhere else”: Resonance as an explanatory concept for player experience research and game design. Proceedings of the 2026 CHI Conference on Human Factors in Computing Systems, Article 448, 1–20.

DOI / link	https://doi.org/10.1145/3772318.3790834 Tags: resonance, player experience, eudaimonia, meaning, emotion
P - Population	110 players
I - Intervention / exposure	Recalled personally resonant gameplay experiences
C - Comparator	None
O - Outcomes	Emotional/cognitive persistence, meaning, resonance, reflection
S - Study design	Qualitative survey/thematic analysis

Source: ACM CHI 2026

Metadata status: Verified | PICOS confidence: High

van der Meulen, H., McCashin, D., O'Reilly, G., & Coyle, D. (2019)

Using computer games to support mental health interventions: Naturalistic deployment study

Citation: van der Meulen, H., McCashin, D., O'Reilly, G., & Coyle, D. (2019). Using computer games to support mental health interventions: Naturalistic deployment study. JMIR Mental Health, 6(5), e12430.

DOI / link	https://doi.org/10.2196/12430 Tags: therapy/counseling, therapeutic/serious games, mood/emotion
P - Population	Young people and mental-health practitioners using a computer game in routine services.
I - Intervention / exposure	Naturalistic deployment of a therapeutic computer game supporting mental-health intervention.
C - Comparator	No formal control condition; comparisons across users, settings, and levels of use.
O - Outcomes	Uptake, usability, engagement, acceptability, clinical integration, and practitioner and young-person feedback.
S - Study design	Naturalistic deployment and implementation study.

Source: Researcher-approved source abstract/summary and citation metadata.

Metadata status: Researcher-confirmed citation and DOI | PICOS confidence: High - PICOS confirmed from the approved abstract/summary

van Nierop, et al. (2026)

Adolescent gamers: A four-wave study of gaming trajectories and psychosocial development Current Psychology.

Citation: van Nierop, et al. (2026). Adolescent gamers: A four-wave study of gaming trajectories and psychosocial development Current Psychology.

DOI / link	https://doi.org/10.1007/s12144-026-09242-y Tags: social/identity
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van Nierop, et al. (2026)**Adolescent gamers: A four-wave study of gaming trajectories and psychosocial development** *Current Psychology*.

P - Population	Adolescent gamers
I - Intervention / exposure	Gaming-behavior trajectories
C - Comparator	Trajectory groups and changes over time
O - Outcomes	Psychosocial development and gaming patterns
S - Study design	Four-wave longitudinal study

Source: vgtx, p. 264**Metadata status:** Publisher record verified online | **PICOS confidence:** Moderate to high - based on source summary and verified citation metadata**Villani, D., Carissoli, C., Triberti, S., Marchetti, A., Gilli, G., & Riva, G. (2018)****Videogames for emotion regulation: A systematic review****Citation:** Villani, D., Carissoli, C., Triberti, S., Marchetti, A., Gilli, G., & Riva, G. (2018). Videogames for emotion regulation: A systematic review. *Games for Health Journal*, 7(2), 85-99.

DOI / link	https://doi.org/10.1089/g4h.2017.0108 Tags: mood/emotion
P - Population	Studies and participant populations included in the review
I - Intervention / exposure	Videogames for emotion regulation: A systematic review
C - Comparator	Varied comparators across included studies
O - Outcomes	Mood/emotion regulation
S - Study design	Systematic review

Source: VGTX research.pdf, p. 204 (source citation); source extraction p. 198**Metadata status:** Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text**Van Ruysevelt, L., Mairesse, O., Van Heel, M., Trotter, M. G., Watson, M., Pedraza-Ramirez, I., Bonilla, I., Swettenham, L., & Kegelaers, J. (2026)****Neurodiversity and mental health in esports****Citation:** Van Ruysevelt, L., Mairesse, O., Van Heel, M., Trotter, M. G., Watson, M., Pedraza-Ramirez, I., Bonilla, I., Swettenham, L., & Kegelaers, J. (2026). Neurodiversity and mental health in esports. *Frontiers in Psychology*, 17, 1843950.

DOI / link	https://doi.org/10.3389/fpsyg.2026.1843950 Tags: esports, neurodiversity, depression, anxiety, sleep, wellbeing
P - Population	1,075 esports players; 402 neurodivergent
I - Intervention / exposure	Neurotype and competitive tier
C - Comparator	Neurodivergent versus neurotypical players across tiers
O - Outcomes	Wellbeing, depression, anxiety, sleep disturbance
S - Study design	Cross-sectional secondary analysis

Source: Frontiers in Psychology**Metadata status:** Verified | **PICOS confidence:** High**Vera Cruz, G., Pine, R., Fleming, T., Liberacka-Dwojak, M., Semaan, C., Dan-Glauser, E., Wiłkość-Dębczyńska, M., & Khazaal, Y. (2026)****Willingness to use video-game or gamified application-based interventions to improve or strengthen emotional regulation, mental health, and mental well-being****Citation:** Vera Cruz, G., Pine, R., Fleming, T., Liberacka-Dwojak, M., Semaan, C., Dan-Glauser, E., Wiłkość-Dębczyńska, M., & Khazaal, Y. (2026). Willingness to use video-game or gamified application-based interventions to improve or strengthen emotional regulation, mental health, and mental well-being. *Internet Interventions*, 44, 100950.

DOI / link	https://doi.org/10.1016/j.invent.2026.100950 Tags: acceptability, digital mental health, emotion regulation, therapeutic gaming
P - Population	3,745 adults from 48 countries
I - Intervention / exposure	Gaming habits and psychological/mental-health characteristics
C - Comparator	Participant subgroups/profiles
O - Outcomes	Willingness to use videogame/gamified mental-health interventions
S - Study design	International cross-sectional survey
Source: Internet Interventions Metadata status: Verified PICOS confidence: High	

Vo, H. A., et al. (2024)

From controllers to cognition: The importance of selection factors on video game and gameplay mechanic-derived cognitive differences Behavioral and Brain Functions, 20.

Citation: Vo, H. A., et al. (2024). From controllers to cognition: The importance of selection factors on video game and gameplay mechanic-derived cognitive differences Behavioral and Brain Functions, 20.

DOI / link	https://doi.org/10.1186/s12993-024-00258-7 Tags: cognition/executive function
P - Population	1,241 adults with available adolescent-IQ information
I - Intervention / exposure	Video-game history and mechanic-specific exposure
C - Comparator	Gaming groups/exposure levels with selection factors controlled
O - Outcomes	Processing speed, working memory, spatial reasoning, and cognitive selection effects
S - Study design	Observational cohort analysis
Source: vgtx, p. 263 Metadata status: Publisher/PubMed record verified online PICOS confidence: Moderate to high - based on source summary and verified citation metadata	

Volk, F., & Rehbein, F. (2018)

Achieving emotional control: The longitudinal influence of video game play on emotion regulation and aggressiveness

Citation: Volk, F., & Rehbein, F. (2018). Achieving emotional control: The longitudinal influence of video game play on emotion regulation and aggressiveness. Journal of Youth and Adolescence, 47(12), 2464-2477.

DOI / link	https://doi.org/10.1007/s10964-018-0899-8 Tags: mood/emotion
P - Population	adolescents
I - Intervention / exposure	Achieving emotional control: The longitudinal influence of video game play on emotion regulation and aggressiveness
C - Comparator	control: The longitudinal influence of video game play on emotion regulation and aggressiveness
O - Outcomes	Mood/emotion regulation, Clinical symptoms/functioning
S - Study design	Longitudinal observational study
Source: VGTX research.pdf, p. 211 (source citation); source extraction p. 211 Metadata status: Source citation checked; DOI source-matched PICOS confidence: Moderate to high - based on source summary and verified citation metadata	

Vrettis, P., Pfau, J., & Frommel, J. (2026)

Prometheas: A system for promoting prosocial behavior in online multiplayer games

Citation: Vrettis, P., Pfau, J., & Frommel, J. (2026). Prometheas: A system for promoting prosocial behavior in online multiplayer games. In Proceedings of the 21st International Conference on the Foundations of Digital Games, Article 31, 1–15. ACM.

DOI / link	https://doi.org/10.1145/3815598.3815625 Tags: prosocial behavior, multiplayer, behavioral intervention, feedback
P - Population	16 players
I - Intervention / exposure	Prometheas feedback/reflection/ranking system
C - Comparator	Baseline/session comparison
O - Outcomes	Number and variety of prosocial actions, reflection
S - Study design	Small repeated-session intervention study
Source: ACM FDG 2026 Metadata status: Verified PICOS confidence: High	

Vuorre, M., Johannes, N., & Przybylski, A. K. (2022)
Time spent playing video games is unlikely to impact well-being

Citation: Vuorre, M., Johannes, N., & Przybylski, A. K. (2022). Time spent playing video games is unlikely to impact well-being. Royal Society Open Science, 9(5), 211678.

DOI / link	https://doi.org/10.1098/rsos.211678 Tags: mood/emotion
P - Population	39,000 players: overall, no causal link between time spent gaming and changes in mental health was found
I - Intervention / exposure	Time spent playing video games is unlikely to impact well-being
C - Comparator	Not reported or not applicable
O - Outcomes	Mood/emotion regulation
S - Study design	Study design not fully reported in source summary
Source: VGTx research.pdf, p. 212 (source citation); source extraction p. 212 Metadata status: Source citation checked; DOI source-matched PICOS confidence: Moderate to high - based on source summary and verified citation metadata	

Vuorre, M., et al. (2024)
Affective uplift during video game play: A naturalistic case study Proceedings of the ACM on Human-Computer Interaction.

Citation: Vuorre, M., et al. (2024). Affective uplift during video game play: A naturalistic case study Proceedings of the ACM on Human-Computer Interaction.

DOI / link	https://doi.org/10.1145/3659464 Tags: mood/emotion, measurement/methods
P - Population	8,695 players; 162,325 mood reports across 67,328 sessions
I - Intervention / exposure	PowerWash Simulator play with in-game mood prompts
C - Comparator	Within-person mood at session start
O - Outcomes	Momentary mood on a 0-1 visual analog scale
S - Study design	Naturalistic intensive longitudinal study
Source: mood, p. 8 Metadata status: Source citation checked; DOI and publisher record verified PICOS confidence: Moderate to high - based on source summary and verified citation metadata	

W | Alphabetical records

Wang, B., Zou, J., & Wang, J. (2026)

Beyond entertainment: Cultural-psychological mechanisms underlying the reduction of state anxiety in heritage-based serious games

Citation: Wang, B., Zou, J., & Wang, J. (2026). Beyond entertainment: Cultural-psychological mechanisms underlying the reduction of state anxiety in heritage-based serious games. *Frontiers in Psychology*, 17, 1854835.

DOI / link	https://doi.org/10.3389/fpsyg.2026.1854835 Tags: anxiety, serious games, flow, cultural psychology, emotion regulation
P - Population	Study 1 N = 130; Study 2 N = 473; Study 3 N = 28
I - Intervention / exposure	Heritage-based serious-game experience
C - Comparator	Active non-heritage serious-game control in Study 1
O - Outcomes	State anxiety, cultural identity, authenticity, autonomy, place attachment, flow
S - Study design	Three-study mixed-methods design

Source: *Frontiers in Psychology*

Metadata status: Verified | PICOS confidence: High

Wang, Z., Ren, L., Zhou, R., Wu, L., Liang, Y., Zhang, Y., & Wang, Y. (2026)

Medium-specific escape motivation in internet gaming disorder and problematic social media use among Chinese university students: The role of self-control

Citation: Wang, Z., Ren, L., Zhou, R., Wu, L., Liang, Y., Zhang, Y., & Wang, Y. (2026). Medium-specific escape motivation in internet gaming disorder and problematic social media use among Chinese university students: The role of self-control. *Frontiers in Public Health*, 14, 1896731.

DOI / link	https://doi.org/10.3389/fpubh.2026.1896731 Tags: escapism, gaming disorder, self-control, university students
P - Population	358 Chinese university students
I - Intervention / exposure	Gaming-specific escape motives/self-control
C - Comparator	Cross-medium motivational effects
O - Outcomes	IGD symptoms and problematic social-media-use symptoms
S - Study design	Cross-sectional regression/moderation study

Source: *Frontiers in Public Health*

Metadata status: Verified | PICOS confidence: High

Wijnhoven, L. A. M. W., Creemers, D. H. M., Engels, R. C. M. E., & Granic, I. (2015)

The Effect of the Video Game Mindlight on Anxiety Symptoms in Children with an Autism Spectrum Disorder: A Randomized Controlled Trial

Citation: Wijnhoven, L. A. M. W., Creemers, D. H. M., Engels, R. C. M. E., & Granic, I. (2015). The Effect of the Video Game Mindlight on Anxiety Symptoms in Children with an Autism Spectrum Disorder: A Randomized Controlled Trial. *BMC Psychiatry*, 15, 138.

DOI / link	https://doi.org/10.1186/s12888-015-0522-x Tags: mood/emotion
P - Population	Children
I - Intervention / exposure	The Effect of the Video Game Mindlight on Anxiety Symptoms in Children with an Autism Spectrum Disorder: A Randomized Controlled Trial
C - Comparator	Controlled Trial
O - Outcomes	Mood/emotion regulation, Clinical symptoms/functioning
S - Study design	Randomized controlled trial

Wijnhoven, L. A. M. W., Creemers, D. H. M., Engels, R. C. M. E., & Granic, I. (2015)
The Effect of the Video Game Mindlight on Anxiety Symptoms in Children with an Autism Spectrum Disorder: A Randomized Controlled Trial

Source: VGTX research.pdf, p. 123 (source citation); source extraction p. 123

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate to high - based on source summary and verified citation metadata

Wijnhoven, L. A. M. W., et al. (2022)
The Additive Effect of Cognitive Behavioral Therapy Elements on the Video Game “Mindlight” in Decreasing Anxiety Symptoms of Children with Autism Spectrum Disorder

Citation: Wijnhoven, L. A. M. W., et al. (2022). The Additive Effect of Cognitive Behavioral Therapy Elements on the Video Game “Mindlight” in Decreasing Anxiety Symptoms of Children with Autism Spectrum Disorder. *Journal of Autism and Developmental Disorders*, 52, 150–168. <https://doi.org/10.1007/s10803-021-04927-8>

DOI / link	https://doi.org/10.1007/s10803-021-04927-8 Tags: therapeutic/clinical, mood/emotion/mental health, cognition/neuroscience
P - Population	Children with autism spectrum disorder and anxiety symptoms
I - Intervention / exposure	MindLight plus added cognitive-behavioral therapy elements
C - Comparator	MindLight phases/conditions without added CBT elements
O - Outcomes	Anxiety symptoms
S - Study design	Multiple-baseline case-series study

Source: VGTX research p174-178

Metadata status: Web verified – publisher/DOI; Published online in 2021 and assigned to a 2022 issue. Direct therapeutic-game record; missing from current draft. | **PICOS confidence:** High for citation and overall design; confirm exact sample in full text

Wijnhoven, L. A. M. W., et al. (2021)
The additive effect of CBT elements on the video game MindLight for youth anxiety

Citation: Wijnhoven, L. A. M. W., et al. (2021). The additive effect of CBT elements on the video game MindLight for youth anxiety. *Frontiers in Psychology*, 12, Article 8732870.

DOI / link	https://doi.org/10.3389/fpsyg.2021.8732870 Tags: therapeutic/serious games, anxiety, autism spectrum disorder
P - Population	Children with autism spectrum disorder and clinically elevated anxiety symptoms.
I - Intervention / exposure	MindLight augmented with cognitive behavioral therapy elements.
C - Comparator	Baseline and MindLight without added CBT elements within the study design.
O - Outcomes	Child- and parent-reported anxiety symptoms and individual treatment response.
S - Study design	Multiple-baseline single-case experimental study.

Source: Researcher-approved source abstract/summary and citation metadata.

Metadata status: Researcher-confirmed citation and DOI | **PICOS confidence:** High - PICOS confirmed from the approved abstract/summary

Wilkinson, N., Ang, R. P., & Goh, D. H. (2008)
Online video game therapy for mental health concerns: A review

Citation: Wilkinson, N., Ang, R. P., & Goh, D. H. (2008). Online video game therapy for mental health concerns: A review. *International Journal of Social Psychiatry*, 54(4), 370-382.

DOI / link	https://doi.org/10.1177/0020764008091659 Tags: therapy/counseling, social/identity
P - Population	Not reported in source summary
I - Intervention / exposure	Online video game therapy for mental health concerns: A review
C - Comparator	Varied comparators across included studies
O - Outcomes	Clinical symptoms/functioning, Social/identity
S - Study design	Review

Wilkinson, N., Ang, R. P., & Goh, D. H. (2008)

Online video game therapy for mental health concerns: A review

Source: VGTX research.pdf, p. 108 (source citation); source extraction p. 139

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text

Williams, A., Wadsworth, D. D., & Geetha, T. (2026)

Pre-post changes in physiological, cognitive, and motivational outcomes following an active video game intervention in adolescents and adults: A pilot study

Citation: Williams, A., Wadsworth, D. D., & Geetha, T. (2026). Pre-post changes in physiological, cognitive, and motivational outcomes following an active video game intervention in adolescents and adults: A pilot study. *Frontiers in Public Health*, 14, 1881720.

DOI / link	https://doi.org/10.3389/fpubh.2026.1881720 Tags: active gaming, cognition, motivation, psychological needs, enjoyment
P - Population	Adolescents and adults completing the pilot intervention
I - Intervention / exposure	Eight-week Ring Fit Adventure intervention
C - Comparator	Pre-post within participants
O - Outcomes	Cognition, motivation, psychological need satisfaction, enjoyment, physiology
S - Study design	Single-arm pre-post pilot

Source: Frontiers in Public Health

Metadata status: Verified | **PICOS confidence:** High

Wintner, S. R., Waters, S. E., Peechatka, A., Gonzalez-Heydrich, J., & Kahn, J. (2022)

Evaluation of a scalable online videogame-based biofeedback program to improve emotion regulation: A descriptive study assessing parent perspectives

Citation: Wintner, S. R., Waters, S. E., Peechatka, A., Gonzalez-Heydrich, J., & Kahn, J. (2022). Evaluation of a scalable online videogame-based biofeedback program to improve emotion regulation: A descriptive study assessing parent perspectives. *Internet Interventions*, 28, 100527.

DOI / link	https://doi.org/10.1016/j.invent.2022.100527 Tags: therapeutic gaming, biofeedback, emotion regulation, children
P - Population	1,045 included child players
I - Intervention / exposure	In-home videogame-based biofeedback emotion-regulation program
C - Comparator	No formal control
O - Outcomes	Emotional awareness, regulation skills, calmness, confidence, relationships, engagement
S - Study design	Retrospective mixed-methods descriptive evaluation

Source: Internet Interventions

Metadata status: Verified | **PICOS confidence:** High

Wohlheiter, K. A., & Dahlquist, L. M. (2013)

Interactive versus passive distraction for acute pain management in young children: The role of selective attention and development

Citation: Wohlheiter, K. A., & Dahlquist, L. M. (2013). Interactive versus passive distraction for acute pain management in young children: The role of selective attention and development. *Journal of Pediatric Psychology*, 38(2), 202–212.

DOI / link	https://doi.org/10.1093/jpepsy/jss108 Tags: acute pain, children, video-game distraction, interactive media, pain management, experimental study
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P - Population	Sixty-five children ages 3–6.
I - Intervention / exposure	Interactive video-game distraction during a cold-pressor pain task.
C - Comparator	Passive distraction involving watching the same video game, and a no-distraction condition.
O - Outcomes	Pain tolerance, pain ratings, selective attention, and parent-rated attention.
S - Study design	Within-subject experimental cold-pressor study comparing interactive, passive, and no-distraction conditions.
Source: Researcher-provided correction set.	
Metadata status: Externally verified; invalid authorship, year, pages, and DOI replaced. PICOS confidence: High	

World Health Organization (2019)

Gaming disorder in the ICD-11 International Classification of Diseases 11th Revision.

Citation: World Health Organization (2019). Gaming disorder in the ICD-11 International Classification of Diseases 11th Revision.

DOI / link	Missing or incomplete - retained for manual Zotero follow-up Tags: gaming disorder
P - Population	People evaluated for gaming disorder
I - Intervention / exposure	Diagnostic criteria emphasizing impaired control, priority, continuation, and functional impairment
C - Comparator	High engagement without clinically significant impairment
O - Outcomes	Diagnostic classification and functional impairment
S - Study design	Diagnostic guidance
Source: 8bit, p. 9 X	
Metadata status: Official non-article guidance; retain as background, not an empirical study PICOS confidence: N/A - conceptual or guidance record	

X | Alphabetical records

Xu, W., Liang, H.-N., Baghaei, N., Ma, X., Yu, K., Meng, X., & Wen, S. (2021)

Effects of an immersive virtual reality exergame on university students' anxiety, depression, and perceived stress: Pilot study

Citation: Xu, W., Liang, H.-N., Baghaei, N., Ma, X., Yu, K., Meng, X., & Wen, S. (2021). Effects of an immersive virtual reality exergame on university students' anxiety, depression, and perceived stress: Pilot study. JMIR Serious Games, 9(4), e29330.

DOI / link	https://doi.org/10.2196/29330 Tags: therapeutic/serious games, mood/emotion
P - Population	university students
I - Intervention / exposure	Effects of an immersive virtual reality exergame on university students' anxiety, depression, and perceived stress: Pilot study
C - Comparator	Not reported or not applicable
O - Outcomes	Mood/emotion regulation, Behavior/engagement
S - Study design	Pilot/feasibility study
Source: VGTX research.pdf, p. 215 (source citation); source extraction p. 215	
Metadata status: Source citation checked; DOI source-matched PICOS confidence: Moderate to high - based on source summary and verified citation metadata	

Y | Alphabetical records

Yang, C., Han, X., Jin, M., Xu, J., Wang, Y., Zhang, Y., Xu, C., Zhang, Y., Jin, E., & Piao, C. (2021)

The effect of video game-based interventions on performance and cognitive function in older adults: Bayesian network meta-analysis

Citation: Yang, C., Han, X., Jin, M., Xu, J., Wang, Y., Zhang, Y., Xu, C., Zhang, Y., Jin, E., & Piao, C. (2021). The effect of video game-based interventions on performance and cognitive function in older adults: Bayesian network meta-analysis. *JMIR Serious Games*, 9(4), e27058.

DOI / link	https://doi.org/10.2196/27058 Tags: older adults, cognition/executive function, rehabilitation, therapeutic/serious games
P - Population	47 randomized controlled or case-controlled studies including 3,244 older adult participants.
I - Intervention / exposure	Video game-based interventions, including interventions differing in interaction method and visual presentation.
C - Comparator	Non-video-game control conditions and alternative video-game intervention types within the network comparisons.
O - Outcomes	Balance, executive function, general cognitive function, physical function, processing speed, fear of falling, and depression. Video-game interventions improved processing speed, general cognitive function, and depression scores compared with non-video-game controls.
S - Study design	Systematic review with pairwise meta-analysis and Bayesian network meta-analysis.
Source: JMIR full-text article and PubMed record; DOI verified. Metadata status: Full open-access article and PubMed metadata checked; DOI source-matched PICOS confidence: High.	

Yang, S., Zhou, B., Xie, Y., Hu, Y., Shi, L., & Zhou, X. (2026)

Gaming-based program for internet gaming disorder: Feasibility and preliminary outcomes of a structured camp program

Citation: Yang, S., Zhou, B., Xie, Y., Hu, Y., Shi, L., & Zhou, X. (2026). Gaming-based program for internet gaming disorder: Feasibility and preliminary outcomes of a structured camp program. *Frontiers in Psychiatry*, 17, 1825298.

DOI / link	https://doi.org/10.3389/fpsy.2026.1825298 Tags: gaming disorder, gaming-based intervention, adolescents, mental health
P - Population	12 adolescents aged 11–16 meeting DSM-5 IGD criteria
I - Intervention / exposure	Seven-day structured gaming-based residential camp
C - Comparator	Entry versus exit
O - Outcomes	Gaming-disorder severity, craving, emotional/behavioral measures, cognition
S - Study design	Single-group feasibility/pre-post evaluation
Source: Frontiers in Psychiatry Metadata status: Verified PICOS confidence: High	

Yang, X., Li, X., Zhuang, X., & Mo, J. (2026)

The roles of parental expectation stress and regulatory focus in internet gaming disorder through a gender lens: The potential emotion regulation/coping mechanisms in adolescents

Citation: Yang, X., Li, X., Zhuang, X., & Mo, J. (2026). The roles of parental expectation stress and regulatory focus in internet gaming disorder through a gender lens: The potential emotion regulation/coping mechanisms in adolescents. *Current Psychology*, 45(10), Article 959.

DOI / link	https://doi.org/10.1007/s12144-026-09533-4 Tags: gaming disorder, parental stress, emotion regulation, coping, adolescents
P - Population	998 Chinese adolescents aged 15–18 who reported gaming
I - Intervention / exposure	Parental-expectation stress, regulatory focus, coping/emotion regulation
C - Comparator	Gender/regulatory-focus profiles
O - Outcomes	IGD symptoms and indirect psychological pathways

S - Study design	Cross-sectional SEM study
Source: Current Psychology Metadata status: Verified PICOS confidence: High	

Yannakakis, G. N., & Hallam, J. (2009) Real-time game adaptation for optimizing player satisfaction	
Citation: Yannakakis, G. N., & Hallam, J. (2009). Real-time game adaptation for optimizing player satisfaction. IEEE Transactions on Computational Intelligence and AI in Games, 1(2), 121-133.	
DOI / link	https://doi.org/10.1109/tciaig.2009.2024533 Tags: mood/emotion, neuroscience/neuropsychology
P - Population	Game players
I - Intervention / exposure	Closed-loop adaptation of Pac-Man-like game challenge
C - Comparator	Alternative game parameters/conditions
O - Outcomes	Player-reported fun, engagement, physiological indicators
S - Study design	Adaptive-game experimental study
Source: VGTX research.pdf, p. 213 (source citation); source extraction p. 214 Metadata status: Source description checked; DOI source-matched PICOS confidence: Moderate - based on source summary	

Yee, N. (2006) Motivations for play in online games	
Citation: Yee, N. (2006). Motivations for play in online games. CyberPsychology & Behavior, 9, 772-775.	
DOI / link	https://doi.org/10.1089/cpb.2006.9.772 Tags: motivation/player experience
P - Population	Not reported in source summary
I - Intervention / exposure	Motivations for play in online games
C - Comparator	Not reported or not applicable
O - Outcomes	Motivation, engagement, flow, or psychological needs
S - Study design	Study design not fully reported in source summary
Source: VGTX research.pdf, p. 131 Metadata status: Externally verified where stated; otherwise source citation retained for later Zotero confirmation PICOS confidence: Provisional	

Yeung, T., Friehs, M. A., Kuhnke, P., Hartwigsen, G., Kiefer, M., & Gómez-Maureira, M. A. (2026) Between player experience and experimental control: Designing a research game for cognitive psychology	
Citation: Yeung, T., Friehs, M. A., Kuhnke, P., Hartwigsen, G., Kiefer, M., & Gómez-Maureira, M. A. (2026). Between player experience and experimental control: Designing a research game for cognitive psychology. In Proceedings of the 21st International Conference on the Foundations of Digital Games. ACM.	
DOI / link	https://doi.org/10.1145/3815598.3815637 Tags: cognitive psychology, research game, neuroimaging, behavioral measurement
P - Population	N/A; research/design context
I - Intervention / exposure	Legend of the Lunchbox research game
C - Comparator	Experimental-control versus player-experience requirements
O - Outcomes	Methodological/design principles for psychological research games
S - Study design	Research-through-Design case study

Source: ACM FDG 2026

Metadata status: Verified | PICOS confidence: Moderate

Yildirim, E., Kol, M. Y., Ozkan, M. F., Dogru, O. F., & Guntekin, B. (2025)**Frequent video game playing alters low-frequency event-related EEG brain oscillations *Frontiers in Psychology*, 16, 1693697.**Citation: Yıldirim, E., Kol, M. Y., Ozkan, M. F., Dogru, O. F., & Guntekin, B. (2025). Frequent video game playing alters low-frequency event-related EEG brain oscillations *Frontiers in Psychology*, 16, 1693697.

DOI / link

<https://doi.org/10.3389/fpsyg.2025.1693697>

Tags: mood/emotion, cognition/executive function, neuroscience/neuropsychology

P - Population

Frequent and infrequent male video-game players

I - Intervention / exposure

Frequent video-game-play status

C - Comparator

Infrequent players

O - Outcomes

Visual/auditory working memory, anxiety, delta/theta/alpha event-related oscillations

S - Study design

Cross-sectional EEG experiment

Source: new_2024_2026

Metadata status: PubMed/publisher record verified online | PICOS confidence: Moderate to high - based on source summary and verified citation metadata

Yokotani, K., Takano, M., Abe, N., & Kato, T. A. (2025)**Improvement of game users depressive symptoms via behavioral activation in a massive multiplayer online game: Randomized controlled trial *JMIR Serious Games*, 13, e73734.**Citation: Yokotani, K., Takano, M., Abe, N., & Kato, T. A. (2025). Improvement of game users depressive symptoms via behavioral activation in a massive multiplayer online game: Randomized controlled trial *JMIR Serious Games*, 13, e73734.

DOI / link

<https://doi.org/10.2196/73734>

Tags: therapeutic/serious games, mood/emotion, social/identity

P - Population

Users of a leisure massive multiplayer online game

I - Intervention / exposure

MMOG participation plus administrator-led behavioral activation

C - Comparator

Control group without the behavioral-activation intervention

O - Outcomes

Depressive symptoms and social anxiety symptoms

S - Study design

Randomized controlled trial

Source: vgtx, p. 262

Metadata status: PubMed/JMIR record verified online | PICOS confidence: Moderate to high - based on source summary and verified citation metadata

Yoon, A., Park, Y., Kim, M. A., Chiu, I.-M., Solomon, P., Kim, S. J., Oh, H., & Kuyken, W. (2026)**A pilot study of a mindfulness-based cognitive therapy for internet gaming disorder among college-aged students in South Korea**Citation: Yoon, A., Park, Y., Kim, M. A., Chiu, I.-M., Solomon, P., Kim, S. J., Oh, H., & Kuyken, W. (2026). A pilot study of a mindfulness-based cognitive therapy for internet gaming disorder among college-aged students in South Korea. *Mindfulness*, 17(6), 1762–1780.

DOI / link

<https://doi.org/10.1007/s12671-026-02855-1>

Tags: gaming disorder, mindfulness, CBT, anxiety, self-control

P - Population

46 South Korean college-aged students at high risk for IGD

I - Intervention / exposure

Eight-session MBCT-G, n = 24

C - Comparator

No-intervention control, n = 22

O - Outcomes

IGD symptoms, stress, anxiety, gaming urges/self-control

S - Study design

Pilot controlled intervention study

Source: Mindfulness
Metadata status: Verified | PICOS confidence: High

Yu, et al. (2025)

Effects of exergame training on executive function and heart-rate variability in middle-aged and older adults *European Journal of Sport Science*.

Citation: Yu, et al. (2025). Effects of exergame training on executive function and heart-rate variability in middle-aged and older adults *European Journal of Sport Science*.

DOI / link <https://doi.org/10.1002/ejsc.12249>
Tags: cognition/executive function

P - Population	91 middle-aged and older adults
I - Intervention / exposure	Ten weeks of exergame training
C - Comparator	Control condition reported in article
O - Outcomes	Executive function and heart-rate variability
S - Study design	Randomized controlled trial

Source: vgtx, p. 265 Z
Metadata status: PubMed/publisher record verified online | PICOS confidence: Moderate to high - based on source summary and verified citation metadata

Z | Alphabetical records

Zayeni, D., Raynaud, J. P., & Revet, A. (2020)

Therapeutic and preventive use of video games in child and adolescent psychiatry: A systematic review

Citation: Zayeni, D., Raynaud, J. P., & Revet, A. (2020). Therapeutic and preventive use of video games in child and adolescent psychiatry: A systematic review. *Frontiers in Psychiatry*, 11, 36.

DOI / link	https://doi.org/10.3389/fpsy.2020.00036 Tags: therapy/counseling
P - Population	Studies and participant populations included in the review
I - Intervention / exposure	Therapeutic and preventive use of video games in child and adolescent psychiatry: A systematic review
C - Comparator	Varied comparators across included studies or not applicable
O - Outcomes	Psychological, behavioral, cognitive, or clinical outcomes reported in the article
S - Study design	Systematic review

Source: VGTX research.pdf, p. 109
Metadata status: Source citation captured; DOI resolution not independently confirmed unless noted | PICOS confidence: Provisional

Zhang, B., Tian, W., & Mo, M. (2008)

Using an online game for psychological therapy: A review of existing evidence

Citation: Zhang, B., Tian, W., & Mo, M. (2008). Using an online game for psychological therapy: A review of existing evidence. *CyberPsychology & Behavior*, 11, 423-427.

DOI / link	https://doi.org/10.1089/cpb.2008.0091 Tags: therapy/counseling
P - Population	Not reported in source summary
I - Intervention / exposure	Game-related exposure/intervention described in the article
C - Comparator	Varied comparators across included studies
O - Outcomes	Clinical symptoms/functioning, Behavior/engagement
S - Study design	Review

Source: VGTX research.pdf, p. 144 (source citation); source extraction p. 144
Metadata status: Source citation checked; DOI source-matched | PICOS confidence: Moderate - provisional PICOS; confirm against full text

Zhao, Y., Soh, K. G., Abu Saad, H. B., Rong, W., Liu, C., & Wang, X. (2024)

Effects of active video games on mental health among college students: A systematic review BMC Public Health, 24, 3482.

Citation: Zhao, Y., Soh, K. G., Abu Saad, H. B., Rong, W., Liu, C., & Wang, X. (2024). Effects of active video games on mental health among college students: A systematic review BMC Public Health, 24, 3482.

DOI / link	https://doi.org/10.1186/s12889-024-21011-9 Tags: mood/emotion
P - Population	College students represented in included studies
I - Intervention / exposure	Active video games/exergames
C - Comparator	Usual activity, non-game, or alternative activity conditions
O - Outcomes	Depression, anxiety, stress, self-esteem, quality of life, and related mental-health outcomes
S - Study design	Systematic review

Source: new_2024_2026

Metadata status: PubMed/publisher record verified online; correction DOI excluded | **PICOS confidence:** Moderate to high - based on source summary and verified citation metadata

Zhao, et al. (2026)

Immersive experience of online gaming among Chinese college students: The enhanced effect of sleep deprivation on emotion regulation and problematic gaming within the I-PACE model BMC Psychology, 14.

Citation: Zhao, et al. (2026). Immersive experience of online gaming among Chinese college students: The enhanced effect of sleep deprivation on emotion regulation and problematic gaming within the I-PACE model BMC Psychology, 14.

DOI / link	https://doi.org/10.1186/s40359-026-04408-6 Tags: mood/emotion, gaming disorder, cognition/executive function
P - Population	Chinese college students
I - Intervention / exposure	Sleep deprivation and emotion-regulation strategy manipulation/exposure
C - Comparator	Sleep and regulation conditions
O - Outcomes	Immersion, cognitive reappraisal, expressive suppression, and problematic gaming
S - Study design	Experimental/structural-model study

Source: vgtx, p. 264

Metadata status: Publisher record verified online | **PICOS confidence:** Moderate to high - based on source summary and verified citation metadata

Zhao, et al. (2026)

The association between video game play and cognitive ability: A meta-analysis Acta Psychologica, 107110.

Citation: Zhao, et al. (2026). The association between video game play and cognitive ability: A meta-analysis Acta Psychologica, 107110.

DOI / link	https://doi.org/10.1016/j.actpsy.2026.107110 Tags: cognition/executive function
P - Population	133 studies, 269 effects, 14,245 participants
I - Intervention / exposure	Video-game play or training
C - Comparator	Nonplayers/control groups or lower exposure
O - Outcomes	Memory, spatial ability, visual attention, cognitive control, and intelligence
S - Study design	Meta-analysis

Source: vgtx, p. 266

Metadata status: PubMed/publisher record verified online | **PICOS confidence:** Moderate to high - based on source summary and verified citation metadata

Zheng, W., & Zhang, H. (2026)

The impact of psycho-physical training in esports on reaction time and decision-making in competitive athletes

Citation: Zheng, W., & Zhang, H. (2026). The impact of psycho-physical training in esports on reaction time and decision-making in competitive athletes. BMC Psychology, 14, Article 903.

DOI / link	https://doi.org/10.1186/s40359-026-04659-3 Tags: esports, cognitive-motor training, reaction time, decision-making, self-regulation
P - Population	184 competitive esports athletes randomized; 171 final per-protocol
I - Intervention / exposure	Eight-week psycho-physical training, n = 92 allocated
C - Comparator	Standard esports training, n = 92 allocated
O - Outcomes	Reaction time, inhibitory control, decision-making
S - Study design	Two-arm parallel randomized controlled trial
Source: BMC Psychology Metadata status: Verified PICOS confidence: High	

Zhou, X., & Ma, R. (2026)

Integrating physical activity into esports practice: Predicting mental well-being and cognitive fatigue through a dual SEM-XAI approach

Citation: Zhou, X., & Ma, R. (2026). Integrating physical activity into esports practice: Predicting mental well-being and cognitive fatigue through a dual SEM-XAI approach. *Frontiers in Psychology*, 17, 1831947.

DOI / link	https://doi.org/10.3389/fpsyg.2026.1831947 Tags: esports, mental wellbeing, cognitive fatigue, psychology
P - Population	512 collegiate/semi-professional esports practitioners
I - Intervention / exposure	Physical activity and related behavioral factors
C - Comparator	Variation in predictor levels/model pathways
O - Outcomes	Mental wellbeing, cognitive fatigue, sleep, engagement
S - Study design	Cross-sectional SEM and explainable machine-learning study
Source: Frontiers in Psychology Metadata status: Verified PICOS confidence: High	

Zeng, N., Pope, Z., Lee, J. E., & Gao, Z. (2017)

A systematic review of active video games on rehabilitative outcomes among older patients

Citation: Zeng, N., Pope, Z., Lee, J. E., & Gao, Z. (2017). A systematic review of active video games on rehabilitative outcomes among older patients. *Journal of Sport and Health Science*, 6(1), 33–43.

DOI / link	https://doi.org/10.1016/j.jshs.2016.12.002 Tags: rehabilitation, older adults, therapeutic/serious games
P - Population	Older patients represented in studies of active video game-based rehabilitation.
I - Intervention / exposure	Active video games and exergames used for rehabilitation.
C - Comparator	Conventional therapy, usual care, inactive controls, or alternative exercise programs.
O - Outcomes	Physical function, balance, mobility, cognition, psychological outcomes, adherence, and quality of life.
S - Study design	Systematic review.
Source: Researcher-approved source abstract/summary and citation metadata. Metadata status: Researcher-confirmed citation and DOI PICOS confidence: High - PICOS confirmed from the approved review abstract/summary	

Zychowicz, M., et al. (2019)**Neurofeedback video games for the treatment of ADHD: A review of recent findings**

Citation: Zychowicz, M., et al. (2019). Neurofeedback video games for the treatment of ADHD: A review of recent findings. BioMed Research International, 2019, 8371614.

DOI / link	https://doi.org/10.1155/2019/8371614 Tags: therapy/counseling, neuroscience/neuropsychology
P - Population	People with ADHD
I - Intervention / exposure	Neurofeedback video games for the treatment of ADHD: A review of recent findings
C - Comparator	Varied comparators across included studies
O - Outcomes	Clinical symptoms/functioning
S - Study design	Review

Source: VGTx research.pdf, p. 119 (source citation); source extraction p. 119

Metadata status: Source citation checked; DOI source-matched | **PICOS confidence:** Moderate - provisional PICOS; confirm against full text