

Supplementary Materials

Association between digital media use and child health and development: a meta-analysis

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eTable 1.

Search Strategy

Concepts	Key Words
Child	infan* OR baby OR babies OR offspring OR newborn* OR “new-born” OR toddler* OR pre-school* OR child* OR “school-age*” OR adolescen* OR teen* OR “young people” OR youth* OR juvenile*
Digital media	<p>“social media” OR “social network*” OR SMS OR internet* OR “digital media*” OR “mobile phone*” OR “cell* phone*” OR “text messag*” OR technolog* OR “new media*” OR “digital media” OR “screen time” OR Online* OR Web* OR “multiplayer video game*” OR “video game*” OR “computer game*” or “digital game*” OR “Massively Multiplayer Online Role Playing Game*” OR “MMORPG*”</p> <p>Subject heading: Digital Media OR Digital Technology</p>
Research design	longitudinal OR cohort OR “cross-sectional” OR “case-control” OR observational OR prospective

Note. Title and abstract, English and human sample limits were used in each search. Search concepts were combined using “AND”.

eTable 2a

Studies Excluded at the Full Text Screening Stage (n=1,218)

Citation	Title	Data Source	Exclusion Reason
Abe et al., 2019	Prevalence and correlates of physical activity among children and adolescents: a cross-sectional population-based study of a rural city in Japan	Database	Wrong exposure
Abrams et al., 2011	Dynamic Learning in Virtual Spaces: Producers and Consumers of Meaning	Database	Wrong study design
Abramson et al., 2009	Mobile telephone use is associated with changes in cognitive function in young adolescents	Database	Wrong study design
Achterberg et al., 2022	Longitudinal associations between social media use, mental well-being and structural brain development across adolescence	Database	Wrong population
Adams et al., 2024	Longitudinal effects of dog ownership, dog acquisition, and dog loss on children's movement behaviours: Findings from the from the PLAYCE cohort study	Database	Wrong exposure
Adeolu et al., 2018	Association between exposure to sexually explicit content in the electronic media and sexual intentions of in-school adolescents in Southwest Nigeria	Database	Wrong outcome
Aguilar et al., 2015	Screen time impairs the relationship between physical fitness and academic attainment in children	Database	Wrong study design
Ahluwalia et al., 2018	Screen time behaviours and caffeine intake in US children: findings from the cross-sectional National Health and Nutrition Examination Survey (NHANES)	Database	Wrong study design
Ahmadi et al., 2014	Prevalence of Addiction to the Internet, Computer Games, DVD, and Video and Its Relationship to Anxiety and Depression in a Sample of Iranian High School Students	Database	Wrong population
Aires et al., 2010	A 3-year longitudinal analysis of changes in fitness, physical activity, fatness and screen time	Database	Wrong outcome
Aires et al., 2010	Longitudinal changes in physical fitness: Associations with changes in body mass index, active and sedentary behaviours in Portuguese adolescents	Database	Wrong publication type
Akbari et al., 2023	Potential risk and protective factors related to problematic social media use among adolescents in Iran: A latent profile analysis	Database	Wrong population
Akkın Gürbüz et al., 2017	Use of social network sites among depressed adolescents	Database	Wrong study design
Aktepe et al., 2013	Possible internet addiction in high school students in the city center of Isparta and associated factors: a cross-sectional study	Database	Wrong population
Akungu et al., 2024	Longitudinal association of adolescents' perceptions of parental mediations and compulsive internet use	Database	Wrong exposure
Alâ€• Shoaibi et al., 2024	Prospective association of screen time with binge-eating disorder among adolescents in the United States: The mediating role of depression	Database	Wrong exposure
Al-Hazzaa et al., 2011	Physical activity, sedentary behaviors and dietary habits among Saudi adolescents relative to age, gender and region	Database	Wrong study design
Al-Hazzaa et al., 2012	Lifestyle factors associated with overweight and obesity among Saudi adolescents	Database	Wrong exposure
Al-Hazzaa et al., 2014	Lifestyle correlates of self-reported sleep duration among Saudi adolescents: a multicentre school-based cross-sectional study	Database	Wrong outcome
Allafi et al., 2014	Physical activity, sedentary behaviours and dietary habits among Kuwaiti adolescents: gender differences	Database	Wrong study design
Allahverdipour et al., 2010	Correlates of video games playing among adolescents in an Islamic country	Database	Wrong study design

Allen et al., 2015	Are the correlates of sport participation similar to those of screen time?	Database	Wrong outcome
Allen et al., 2021	Associations Between Psychosocial Measures and Digital Media Use Among Transgender Youth: Cross-sectional Study	Database	Wrong study design
Almeida et al., 2008	The relationship between social networks, social support, physical activity and self-rated health: An exploratory study	Database	Wrong population
Almeida et al., 2023	Prospective associations between child screen time and parenting stress and later inattention symptoms in preschoolers during the COVID-19 pandemic.	Database	Wrong exposure
Almuaigel et al., 2021	Impact of Technology Use on Behavior and Sleep Scores in Preschool Children in Saudi Arabia	Database	Wrong study design
Al-Shoaibi et al., 2024	Prospective association of screen time with binge-eating disorder among adolescents in the United States: The mediating role of depression.	Database	Wrong exposure
Altenburg et al., 2012	Direction of the association between body fatness and self-reported screen time in Dutch adolescents	Database	Wrong outcome
Altenburg et al., 2012	Self-reported screen time and cardiometabolic risk in obese Dutch adolescents	Database	Wrong study design
Alturki et al., 2020	Does spending more time on electronic screen devices determine the weight outcomes in obese and normal weight Saudi Arabian children?	Database	Wrong study design
Alves et al., 2020	Sleep duration and daytime sleepiness in a large sample of Brazilian high school adolescents	Database	Wrong outcome
Amawi et al., 2018	Use of Electronic Entertainment and Communication Devices Among a Saudi Pediatric Population: Cross-Sectional Study	Database	No association
Amornsriwatanakul et al., 2017	Are Thai children and youth sufficiently active? prevalence and correlates of physical activity from a nationally representative cross-sectional study	Database	Wrong outcome
An et al., 2014	Associations between problematic internet use and adolescents' physical and psychological symptoms: possible role of sleep quality	Database	Wrong population
Anderson et al., 2008	Active play and screen time in US children aged 4 to 11 years in relation to sociodemographic and weight status characteristics: a nationally representative cross-sectional analysis	Database	Wrong study design
Anderson et al., 2017	Physical activity is low in obese New Zealand children and adolescents	Database	No association
Anderson et al., 2017	Screen Violence and Youth Behavior	Database	Wrong publication type
Añez et al., 2018	Body image dissatisfaction, physical activity and screen-time in Spanish adolescents	Database	Wrong study design
Anitha et al., 2021	Association of digital media exposure and addiction with child development and behavior: A cross-sectional study	Database	Wrong publication type
Anjum et al., 2019	Investigating the prevalence of and factors associated with depressive symptoms among urban and semi-urban school adolescents in Bangladesh: a pilot study	Database	Wrong study design
Aparício et al., 2015	Sedentary activities in preschool children: Analysis of the week and weekend screen time	Database	Wrong publication type
Appel et al., 2012	Are heavy users of computer games and social media more computer literate?	Database	Wrong study design
Arango et al., 2014	Screen time, cardiorespiratory fitness and adiposity among school-age children from Monteria, Colombia	Database	Wrong study design
Arias Ramos et al., 2018	Social exclusion of the adolescent with overweight: study of sociocentric social networks in the classroom	Database	Wrong outcome
Armoon et al., 2019	Epidemiology of childhood overweight, obesity and their related factors in a sample of preschool children from Central Iran	Database	Wrong study design

Arora et al., 2014	Associations between specific technologies and adolescent sleep quantity, sleep quality, and parasomnias	Database	Wrong study design
Arrivillaga et al., 2022	Psychological distress, rumination and problematic smartphone use among Spanish adolescents: An emotional intelligence-based conditional process analysis	Database	Wrong population
Arundell et al., 2019	The Relationship between Objectively Measured and Self-Reported Sedentary Behaviours and Social Connectedness among Adolescents	Database	Wrong study design
Asad et al., 2015	Screen-based behaviours of adolescents in Bangladesh	Database	Wrong study design
Asli et al., 2024	The Predictive Power of Game Addiction and Social Media Addiction on Adolescents' Lifestyle	Database	Wrong study design
Asplund et al., 2015	Early Childhood Screen Time and Parental Attitudes Toward Child Television Viewing in a Low-Income Latino Population Attending the Special Supplemental Nutrition Program for Women, Infants, and Children	Database	Wrong exposure
Aşut et al., 2019	Relationships between screen time, internet addiction and other lifestyle behaviors with obesity among secondary school students in the Turkish Republic of Northern Cyprus	Database	Wrong study design
Atkin et al., 2012	Determinants of change in children's objectively measured sedentary time	Database	Wrong exposure
Atkin et al., 2013	Bedroom media, sedentary time and screen-time in children: a longitudinal analysis	Database	Wrong outcome
Atkin et al., 2015	Perceived family functioning and friendship quality: cross-sectional associations with physical activity and sedentary behaviours	Database	No association
Atsariyasing et al., 2019	Prevalence of cyberbullying and its associations with unsafe online behaviors, social media addiction, and psychosocial problems among 7th - 9th grade students	Database	Wrong publication type
Atwood et al., 2017	The relationship between adolescents' use of Internet-enabled mobile devices and engaging in problematic digital behaviors	Database	Wrong study design
Aucote et al., 2009	Relationships between body fatness, small-screen sedentary activity and regionality among schoolchildren in Victoria, Australia	Database	Wrong study design
Awadalla et al., 2017	Association of video gaming with some risky behaviors of secondary school adolescents in Abha, Southwestern Saudi Arabia	Database	Wrong outcome
Aydin et al., 2011	Mobile phone use and brain tumors in children and adolescents: a multicenter case-control study	Database	Wrong exposure
Azabdaftari et al., 2020	Unrestricted prevalence of sedentary behaviors from early childhood	Database	Wrong study design
Azad et al., 2018	The role of internalizing and externalizing symptoms and social isolation in teenage girls towards the use of Internet and cyberspace	Database	Wrong outcome
B łachnio et al., 2015	Internet use, Facebook intrusion, and depression: Results of a cross-sectional study	Database	Wrong study design
Babic et al., 2017	Longitudinal associations between changes in screen-time and mental health outcomes in adolescents	Database	Wrong study design
Baggio et al., 2016	Reframing video gaming and internet use addiction: empirical cross-national comparison of heavy use over time and addiction scales among young users	Database	Wrong population
Bagot et al., 2019	30.2 screen media activity and impact on mental health and suicidality: results from the adolescent brain cognitive development (abdc) cohort	Database	Wrong publication type
Baker et al., 2020	Pre-meal active video game playing increased subjective appetite but not food intake in children and adolescents	Database	Wrong study design
Bang et al., 2020	Physical activity, screen time and sleep duration: Combined associations with psychosocial health among Canadian children and youth	Database	Wrong outcome

Banjanin et al., 2015	Relationship between internet use and depression: Focus on physiological mood oscillations, social networking and online addictive behavior	Database	Wrong population
Bansal et al., 2015	Overweight and obesity among children of affluent public school in Allahabad, Uttar Pradesh	Database	Wrong study design
Baqal et al., 2019	Urgent Need For Physical Activity Policies And Promotion Among Adolescents In Saudi Arabia: Lessons From “Jeelunaâ€•	Database	Wrong publication type
Barbosa Filho et al., 2012	The prevalence and correlates of behavioral risk factors for cardiovascular health among Southern Brazil adolescents: a cross-sectional study	Database	Wrong outcome
Barnett et al., 2010	Teens and screens: the influence of screen time on adiposity in adolescents	Database	Wrong exposure
Barthorpe et al., 2020	Is social media screen time really associated with poor adolescent mental health? A time use diary study	Database	Wrong study design
Battaglini et al., 2021	Co-rumination across in-person and digital communication: Associations with affect and relationship closeness in adolescents	Database	Wrong study design
Bauducco et al., 2016	Sleep duration and patterns in adolescents: correlates and the role of daily stressors	Database	Wrong study design
Beck et al., 2023	Family predictors of physical activity change during the COVIDâ€™19 lockdown in preschool children in Germany	Database	Wrong exposure
Beckman et al., 2013	Discrepant gender patterns for cyberbullying and traditional bullying—An analysis of Swedish adolescent data	Database	Wrong exposure
Bedford et al., 2016	Toddlers’ fine motor milestone achievement is associated with early touchscreen scrolling	Database	Wrong study design
Ben Thabet et al., 2019	Facteurs associâ€™s Ã la cyberaddiction chez les adolescents Tunisiens = Factors associated with Internet addiction among Tunisian adolescents	Database	Wrong population
Ben Thabet et al., 2019	Factors associated with Internet addiction among Tunisian adolescents	Database	Wrong population
Bener et al., 2010	Obesity and low vision as a result of excessive internet use and television viewing	Database	Wrong study design
Bener et al., 2012	Internet use and television viewing in children and its association with vision loss: A major public health problem	Database	Wrong exposure
Bener et al., 2013	Lifestyle and depressive risk factors associated with problematic internet use in adolescents in an Arabian Gulf culture	Database	Wrong population
Bener et al., 2018	The role of internet addiction on fatigue, sleep disturbances and poor life-style habits among adolescents	Database	Wrong population
Bener et al., 2019	Internet addiction, fatigue, and sleep problems among adolescent students: A large-scale study	Database	Wrong population
Bercedo Sanz et al., 2005	Mass media consumption in adolescence	Database	Wrong publication type
Berentzen et al., 2014	Screen time, adiposity and cardiometabolic markers: mediation by physical activity, not snacking, among 11-year-old children	Database	Wrong exposure
Berg et al., 2014	A cross-sectional study examining youth smoking rates and correlates in Tbilisi, Georgia	Database	Wrong exposure
Bergh et al., 2011	Personal and social-environmental correlates of objectively measured physical activity in Norwegian pre-adolescent children	Database	Wrong exposure
Berkey et al., 2000	Activity, dietary intake, and weight changes in a longitudinal study of preadolescent and adolescent boys and girls	Database	Wrong study design
Berkey et al., 2003	One-year changes in activity and inactivity among 10- to 15-year-old boys and girls: Relationship to change in body mass index	Database	Wrong exposure
Berkey et al., 2008	Weight gain in older adolescent females: the internet, sleep, coffee, and alcohol	Database	Wrong outcome

Berlin et al., 2017	Physical Activity, Sedentary Behaviors, and Nutritional Risk Profiles and Relations to Body Mass Index, Obesity, and Overweight in Eighth Grade	Database	No association
Bertuol et al., 2019	Preference for leisure activities among adolescents in southern Brazil: What changed after a decade?	Database	Wrong study design
Bezinović et al., 2015	Patterns of internet use and mental health of high school students in Istria County Croatia: cross-sectional study	Database	Wrong population
Bhadelia et al., 2024	Difficult toddler temperament—Prevalence and associated factors at 18-month follow-up of a birth cohort	Database	Wrong exposure
Bhatt et al., 2017	Use of mobile and cordless phones and change in cognitive function: A prospective cohort analysis of Australian primary school children	Database	Wrong outcome
Bhatti et al., 2020	Recognition of 16-18-Year-Old Adolescents for Guiding Physical Activity Interventions: A Cross-Sectional Study	Database	Wrong outcome
Bhuiyan et al., 2013	Risk factors associated with overweight and obesity among urban school children and adolescents in Bangladesh: a case-control study	Database	Wrong exposure
Bianchini et al., 2017	Prevalence and factors associated with problematic internet use: an Italian survey among L'Aquila students	Database	Wrong population
Bibiloni et al., 2012	Western and Mediterranean dietary patterns among Balearic Islands' adolescents: socio-economic and lifestyle determinants	Database	Wrong outcome
Bickham et al., 2015	Media use and depression: exposure, household rules, and symptoms among young adolescents in the USA	Database	Wrong outcome
Biddle et al., 2009	The prevalence of sedentary behavior and physical activity in leisure time: A study of Scottish adolescents using ecological momentary assessment	Database	Wrong outcome
Biddle et al., 2010	Tracking of sedentary behaviours of young people: a systematic review	Database	Wrong publication type
Bird et al., 2018	Adolescent paranoia: Prevalence, structure, and causal mechanisms	Database	Wrong outcome
Birken et al., 2010	Predictors of screen time in preschool children: A tar get kids! study	Database	Wrong publication type
Birken et al., 2010	Temperament as a predictor of screen time in pre-school children: A tar get kids! study	Database	Wrong publication type
Bjereld et al., 2017	Time trends of technology mediated communication with friends among bullied and not bullied children in four Nordic countries between 2001 and 2010	Database	Wrong outcome
Black et al., 2018	Sources of sexual health information among adolescent females: Ten-year trends	Database	Wrong outcome
Boccio et al., 2023	Does socializing in the virtual world impact victimization in the real world?	Database	Wrong study design
Boer et al., 2019	Attention deficit hyperactivity disorder symptoms, social media use intensity, and social media use problems in adolescents: Investigating directionality	Database	Wrong population
Boer et al., 2019	Social media disorder, ADHD-symptoms, and mental health: Longitudinal investigations of directionality among adolescents	Database	Wrong publication type
Boers et al., 2020	A longitudinal study on the relationship between screen time and adolescent alcohol use: The mediating role of social norms	Database	Wrong study design
Boers et al., 2020	Temporal Associations of Screen Time and Anxiety Symptoms Among Adolescents	Database	Wrong publication type
Bogl et al., 2019	A within-sibling pair analysis of lifestyle behaviours and BMI z-score in the multi-centre I.Family study	Database	Wrong outcome
Boneberger et al., 2011	[Excessive media consumption and behavioural problems-- a cross-sectional study on pre-school children]	Database	Wrong study design

Booker et al., 2015	Media Use, Sports Participation, and Well-Being in Adolescence: Cross-Sectional Findings From the UK Household Longitudinal Study	Database	Wrong outcome
Boone et al., 2007	Screen time and physical activity during adolescence: longitudinal effects on obesity in young adulthood	Database	Wrong population
Bourgou et al., 2015	Screen exposure in Tunisian child psychiatry consultants	Database	Wrong publication type
Bouter et al., 2024	Five-year follow-up of the iberry study: Screening in early adolescence to identify those at risk of psychopathology in emerging adulthood	Database	Wrong exposure
Bowers et al., 2020	Adolescent sleep and technology-use rules: results from the California Health Interview Survey	Database	Wrong outcome
Boyle et al., 2018	The social mindfeed project: Using objective assessment methods to better understand the nature of social-media based peer alcohol influence	Database	Wrong study design
Bradbury et al., 2019	Electronic device use and beverage related sugar and caffeine intake in US adolescents	Database	Wrong study design
Braig et al., 2018	Screen time, physical activity and self-esteem in children: The Ulm birth cohort study	Database	Wrong study design
Breuer et al., 2015	Sexist games=sexist gamers? A longitudinal study on the relationship between video game use and sexist attitudes	Database	Wrong outcome
Breuer et al., 2015	Violent video games and physical aggression: Evidence for a selection effect among adolescents	Database	Wrong publication type
Brindova et al., 2015	Is the association between screen-based behaviour and health complaints among adolescents moderated by physical activity?	Database	Wrong study design
Brodersen et al., 2007	Trends in physical activity and sedentary behaviour in adolescence: ethnic and socioeconomic differences	Database	Wrong outcome
Brujijns et al., 2019	Exploring the physical activity and screen-viewing-related knowledge, training, and self-efficacy of early childhood education candidates	Database	Wrong population
Brunborg et al., 2017	Social Media Use and Episodic Heavy Drinking Among Adolescents	Database	Wrong study design
Brzozek et al., 2019	Uncertainty analysis of mobile phone use and its effect on cognitive function: The application of monte carlo simulation in a cohort of australian primary school children	Database	Wrong outcome
Bucksch et al., 2014	Trends in television time, non-gaming PC use and moderate-to-vigorous physical activity among German adolescents 2002-2010	Database	Wrong study design
Buelga et al., 2012	Validation of the Adolescent Victimization through Mobile Phone and Internet Scale	Database	Not english
Bullón et al., 2019	Salud mental de adolescentes españoles según variables contextuales y horas de uso de internet = Mental health in Spanish adolescents according contextual variables and hours of Internet use	Database	Not english
Bunker et al., 2024	Perceiving the self as authentic on social media precedes fewer mental health symptoms: A longitudinal approach	Database	Wrong population
Burnell et al., 2022	Associations Between Adolescents' Daily Digital Technology Use and Sleep	Database	Wrong study design
Burnell et al., 2022	Trajectories of Perceived Technological Impairment and Psychological Distress in Adolescents	Database	Wrong outcome
Burnell et al., 2023	Longitudinal and daily associations between adolescent self-control and digital technology use	Database	Wrong exposure
Burnell et al., 2023	Trajectories of perceived technological impairment and psychological distress in adolescents	Database	Wrong exposure
Burnell et al., 2024	Daily links between objective smartphone use and sleep among adolescents	Database	Wrong study design
Byrd-Williams et al., 2019	Physical activity, screen time, and outdoor learning environment practices and policy implementation: a cross sectional study of Texas child care centers	Database	Wrong population

Byun et al., 2012	Associations between screen-based sedentary behavior and cardiovascular disease risk factors in Korean youth	Database	Wrong study design
Cabanas-Sánchez et al., 2018	Association between Clustering of Lifestyle Behaviors and Health-Related Physical Fitness in Youth: The UP&DOWN Study	Database	Wrong outcome
Cabanas-Sánchez et al., 2020	Social correlates of sedentary behavior in young people: The UP&DOWN study	Database	Wrong study design
Cabré et al., 2017	Use of wireless communication devices and sleep quality and sleep problems in adolescents	Database	Wrong exposure
Cabré-Riera et al., 2019	Telecommunication devices use, screen time and sleep in adolescents	Database	Wrong study design
Cadogan et al., 2013	The effects of individual, family, and environmental factors on physical activity levels in children	Database	Wrong study design
Cadoret et al., 2018	Relationship between screen-time and motor proficiency in children: a longitudinal study	Citation Search	Wrong exposure
Cai et al., 2017	Overweight, obesity, and screen-time viewing among Chinese school-aged children: National prevalence estimates from the 2016 Physical Activity and Fitness in China-The Youth Study	Database	Wrong outcome
Çakır et al., 2020	Time spent on the internet, blood pressure, and loneliness in adolescents: A cross-sectional study	Database	Wrong outcome
Calpbinici et al., 2019	Virtual behaviors affecting adolescent mental health: The usage of Internet and mobile phone and cyberbullying	Database	Wrong study design
Çam et al., 2019	Overweight, obesity, weight-related behaviors, and health-related quality of life among high-school students in Turkey	Database	Wrong exposure
Cao et al., 2007	Internet addiction among Chinese adolescents: prevalence and psychological features	Database	Wrong population
Cao et al., 2011	Problematic Internet use in Chinese adolescents and its relation to psychosomatic symptoms and life satisfaction	Database	Wrong study design
Cao et al., 2020	Clustering of lifestyle factors and the relationship with depressive symptoms among adolescents in Northeastern China	Database	Wrong outcome
Cardoso-Leite et al., 2022	Media use, attention, mental health and academic performance among 8 to 12 year old children	Database	Wrong study design
Carlson et al., 2010	Influence of limit-setting and participation in physical activity on youth screen time	Database	Wrong exposure
Carlson et al., 2014	Parallel processes of sedentary behavior and cardiometabolic risk factors in obese adolescents	Database	Wrong exposure
Carras et al., 2017	Video gaming in a hyperconnected world: A cross-sectional study of heavy gaming, problematic gaming symptoms, and online socializing in adolescents	Database	Wrong population
Carson et al., 2011	Screen time and risk behaviors in 10- to 16-year-old Canadian youth	Database	Wrong study design
Carson et al., 2012	Associations between factors within the home setting and screen time among children aged 0-5 years: a cross-sectional study	Database	Wrong study design
Carson et al., 2012	Neighborhood disorder and screen time among 10-16 year old Canadian youth: a cross-sectional study	Database	Wrong outcome
Carson et al., 2012	Racial/ethnic differences in video game and Internet use among US adolescents with mental health and educational difficulties	Database	Wrong study design
Carson et al., 2017	Associations of subjectively and objectively measured sedentary behavior and physical activity with cognitive development in the early years	Database	Wrong study design
Carson et al., 2017	Demographic correlates of screen time and objectively measured sedentary time and physical activity among toddlers: a cross-sectional study	Database	Wrong study design
Carson et al., 2017	Health associations with meeting new 24-hour movement guidelines for Canadian children and youth	Database	Wrong outcome

Carson et al., 2019	Associations between meeting the Canadian 24-Hour Movement Guidelines for the Early Years and behavioral and emotional problems among 3-year-olds	Database	Wrong outcome
Carson et al., 2019	Physical activity and sedentary behavior across three time-points and associations with social skills in early childhood	Database	Wrong study design
Cassidy et al., 2006	Using social identity to explore the link between a decline in adolescent smoking and an increase in mobile phone use	Database	Wrong population
Cassidy-Bushrow et al., 2015	Time Spent on the Internet and Adolescent Blood Pressure	Database	Wrong outcome
Castro et al., 2016	Prevalence of abdominal obesity in adolescents: association between sociodemographic factors and lifestyle	Database	Wrong study design
Castro-Sánchez et al., 2020	Motivational climate is associated with use of video games and violence in schoolchildren: A structural equation model according to healthy behaviors	Database	Wrong outcome
Caumo et al., 2020	Exposure to electronic devices and sleep quality in adolescents: a matter of type, duration, and timing	Database	Wrong study design
Cavazos-Rehg et al., 2021	Exploring how social media exposure and interactions are associated with ENDS and tobacco use in adolescents from the PATH study	Citation Search	Wrong exposure
Çelebioğlu et al., 2020	The effect of internet addiction on sleep quality in adolescents	Database	Wrong population
Cerruti et al., 2017	An exploratory study on Internet addiction, somatic symptoms and emotional and behavioral functioning in school-aged adolescents	Database	Wrong population
Chandra et al., 2016	Screen time of infants in Sydney, Australia: a birth cohort study	Database	Wrong exposure
Chang et al., 2019	Online gaming motive profiles in late adolescence and the related longitudinal development of stress, depression, and problematic Internet use	Database	Wrong population
Chaput et al., 2011	Short sleep duration is independently associated with overweight and obesity in Quebec children	Database	Wrong exposure
Chaput et al., 2012	Physical activity vs. sedentary time: independent associations with adiposity in children	Database	Wrong outcome
Chaput et al., 2013	Combined associations between moderate to vigorous physical activity and sedentary behaviour with cardiometabolic risk factors in children	Database	Wrong outcome
Chaput et al., 2015	Associations between sleep patterns and lifestyle behaviors in children: An international comparison	Database	Wrong outcome
Chaput et al., 2018	Inequality in physical activity, sedentary behaviour, sleep duration and risk of obesity in children: a 12-country study	Database	Wrong outcome
Chaput et al., 2018	Thresholds of physical activity associated with obesity by level of sedentary behaviour in children	Database	Wrong study design
Charmaraman et al., 2020	Social and Behavioral Health Factors Associated with Violent and Mature Gaming in Early Adolescence	Database	Wrong study design
Charmaraman et al., 2022	When Children Use Instagram and Snapchat: The Role of Parental Limits on Negative Impacts	Database	Wrong publication type
Chen et al., 2008	The relationship between TV/computer time and adolescents' health-promoting behavior: a secondary data analysis	Database	Wrong outcome
Chen et al., 2012	The relationship between adolescent body size and health promoting behavior and biochemical indicator factors	Database	Not english
Chen et al., 2015	ADHD and autistic traits, family function, parenting style, and social adjustment for Internet addiction among children and adolescents in Taiwan: a longitudinal study	Database	Wrong population
Chen et al., 2016	Sleep problems and internet addiction among children and adolescents: a longitudinal study	Database	Wrong outcome
Chen et al., 2017	Social Internet use and social stress: A perspective of reduction or stimulation of interpersonal relationships	Database	Wrong population

Chen et al., 2020	Associations between early-life screen viewing and 24 hour movement behaviours: findings from a longitudinal birth cohort study	Database	Wrong population
Chen et al., 2023	Changes in the network association of Internet addiction among heterogeneous high-risk adolescents	Database	Wrong exposure
Chen et al., 2023	Longitudinal associations between cyber victimization and problematic mobile phone use in adolescents: Disentangling between-person effects from within-person effects	Database	Wrong exposure
Chen et al., 2023	Longitudinal associations between cyber victimization and problematic mobile phone use in adolescents: Disentangling between-person effects from within-person effects.	Database	Wrong exposure
Chen et al., 2023	Peer victimization and Internet addiction among adolescents: The role of anger rumination and social dominance orientation	Database	Wrong exposure
Cheng et al., 2012	Video game addiction	Database	Wrong publication type
Cheng et al., 2016	Validity and reliability of HOP-Up: A questionnaire to evaluate physical activity environments in homes with preschool-aged children	Database	Wrong study design
Cheong et al., 2008	The young and techless? Investigating internet use and problem-solving behaviors of young adults in Singapore	Database	Wrong outcome
Chetty-Mhlanga et al., 2020	Different aspects of electronic media use, symptoms and neurocognitive outcomes of children and adolescents in the rural Western Cape region of South Africa	Database	Wrong study design
Cheung et al., 2011	The effects of insomnia and internet addiction on depression in Hong Kong Chinese adolescents: an exploratory cross-sectional analysis	Database	Wrong population
Cheung et al., 2017	Daily touchscreen use in infants and toddlers is associated with reduced sleep and delayed sleep onset	Database	Wrong study design
Cheung et al., 2018	Psychological well-being and adolescents' Internet addiction: A school-based cross-sectional study in Hong Kong	Database	Wrong population
Chiang et al., 2019	Transitions in smartphone addiction proneness among children: The effect of gender and use patterns	Database	Wrong outcome
Chindamo et al., 2019	Sleep and new media usage in toddlers	Database	Wrong study design
Chiong et al., 2018	Screen use and its relationship with emotional and behavioural difficulties in pre-school children with neurodevelopmental disorders: Do screen content and context matter?	Database	Wrong publication type
ChiriÅ£ã et al., 2006	Computer use and addiction in Romanian children and teenagers--an observational study	Database	Wrong population
Chng et al., 2014	Parental mediation and cyberbullying - A longitudinal study	Database	Wrong outcome
Choi et al., 2019	Transitions in Problematic Internet Use: A One-Year Longitudinal Study of Boys	Database	Wrong outcome
Chou et al., 2017	Influencing factors of the body mass index of elementary students in Southern Taiwan	Database	Wrong study design
Christofaro et al., 2019	Parents' Lifestyle, Sedentary Behavior, and Physical Activity in Their Children: A Cross-Sectional Study in Brazil	Database	Wrong outcome
Chu et al., 2023	Screen time and suicidal behaviors among U.S. children 9-11Å years old: A prospective cohort study.	Database	Duplicate
Ciarrochi et al., 2016	The development of compulsive internet use and mental health: A four-year study of adolescence	Database	Wrong population
Ciesla et al., 2012	Physical activity, physical fitness, computer games and BMI of 6-7 year old children from Poland	Database	Wrong study design
Cingel et al., 2014	Understanding the experience of imaginary audience in a social media environment: Implications for adolescent development	Database	Wrong population

Cliff et al., 2017	The Preschool Activity, Technology, Health, Adiposity, Behaviour and Cognition (PATH-ABC) cohort study: Rationale and design	Database	Wrong study design
Cohen et al., 2022	Students' use of technology and their perceptions of its usefulness in higher education: International comparison	Database	Wrong population
Cole et al., 2016	Longitudinal and Incremental Relation of Cybervictimization to Negative Self-Cognitions and Depressive Symptoms in Young Adolescents	Database	Wrong exposure
Colley et al., 2013	Physical activity and sedentary behavior during the early years in Canada: A cross-sectional study	Database	Wrong study design
Connolly et al., 2022	The wild west of measurement: Exploring problematic technology use cut off scores and their relation to psychosocial and behavioural outcomes in adolescence	Database	Wrong study design
Continente et al., 2017	Multiple lifestyle risk behaviours and excess weight among adolescents in Barcelona, Spain	Database	Wrong outcome
Cooper et al., 2006	The identification of psychological and social correlates of Internet use in children and teenagers	Database	Wrong publication type
Cost et al., 2023	Patterns of parent screen use, child screen time, and child socio-emotional problems at 5 years	Database	Wrong study design
Costa et al., 2013	A study on the use of Facebook in informal learning contexts: what are the prospects for formal contexts?	Database	Wrong population
Côté-Lussier et al., 2015	Independent associations between child and parent perceived neighborhood safety, child screen time, physical activity and BMI: a structural equation modeling approach	Database	Wrong study design
Coyne et al., 2015	Physiological indicators of pathologic video game use in adolescence	Database	Wrong population
Coyne et al., 2018	A Six-Year Longitudinal Study of Texting Trajectories During Adolescence	Database	Wrong study design
Coyne et al., 2019	We're not gonna be friends anymore: Associations between viewing relational aggression on television and relational aggression in text messaging during adolescence	Database	Wrong outcome
Coyne et al., 2020	Pathological video game symptoms from adolescence to emerging adulthood: A 6-year longitudinal study of trajectories, predictors, and outcomes	Database	Wrong population
Coyne et al., 2021	Growing up with grand theft auto: A 10-year study of longitudinal growth of violent video game play in adolescents	Citation Search	No association
Coyne et al., 2023	Masters of media: A longitudinal study of parental media efficacy, media monitoring, and child problematic media use across early childhood in the United States	Database	Wrong exposure
Coyne et al., 2023	Media in the moment: An observational assessment of the digital media context in early childhood	Database	Wrong outcome
Critselis et al., 2013	Internet gambling is a predictive factor of Internet addictive behavior among Cypriot adolescents	Database	Wrong outcome
Critselis et al., 2014	Predictive factors and psychosocial effects of Internet addictive behaviors in Cypriot adolescents	Database	Wrong population
Crowe et al., 2020	Combinations of physical activity and screen time recommendations and their association with overweight/obesity in adolescents	Database	Wrong outcome
Cruz et al., 2019	Tobacco Marketing and Subsequent Use of Cigarettes, E-Cigarettes, and Hookah in Adolescents	Database	Wrong outcome
Custers et al., 2010	Television viewing, computer game play and book reading during meals are predictors of meal skipping in a cross-sectional sample of 12-, 14- and 16-year-olds	Database	Wrong study design
Custódio et al., 2019	Exergames in adolescents: associated factors and possible reduction in sedentary time	Database	Wrong study design
da Costa et al., 2020	Clustering of screen time behaviours in adolescents and its association with waist circumference and cardiorespiratory fitness	Database	Wrong study design

da Silva et al., 2019	Physical activity but not sedentary time is associated with vitamin D status in adolescents: study of cardiovascular risk in adolescents (ERICA)	Database	Wrong exposure
Dabravolskaj et al., 2023	The impact of 12 modifiable lifestyle behaviours on depressive and anxiety symptoms in middle adolescence: Prospective analyses of the Canadian longitudinal COMPASS study	Database	Wrong exposure
Dalene et al., 2018	Cross-sectional and prospective associations between sleep, screen time, active school travel, sports/exercise participation and physical activity in children and adolescents	Database	Wrong outcome
de Almeida Silva et al., 2018	Sedentary Behavior, Psychosocial Stress Indicators, and Health-Risk Behaviors Among Adolescents in Northeastern Brazil	Database	Wrong exposure
de Andrade Leão et al., 2023	Cross-sectional and prospective associations between screen time and childhood neurodevelopment in two Brazilian cohorts born 11 years apart	Database	No association
de Araújo et al., 2018	Patterns of physical activity and screen time among Brazilian children	Database	Wrong exposure
de Bruijn et al., 2023	Trends in and relations between children's health-related behaviors pre-, mid- and post-COVID	Database	Wrong exposure
de et al., 2024	Cross-sectional and prospective associations between screen time and childhood neurodevelopment in two Brazilian cohorts born 11 years apart.	Database	Wrong exposure
De Jong et al., 2011	Explaining the association between screen time and overweight in 4-12-year-old-children	Database	Wrong exposure
De Jong et al., 2013	Association between TV viewing, computer use and overweight, determinants and competing activities of screen time in 4- to 13-year-old children	Database	Wrong outcome
De Lucena et al., 2015	Prevalence of excessive screen time and associated factors in adolescents	Database	Wrong outcome
De Souza et al., 2019	The association between night cell phone use and excessive daytime sleepiness in adolescents of Military School	Database	Wrong study design
de Souza Vilela et al., 2016	Factors influencing excessive daytime sleepiness in adolescents	Database	Wrong outcome
de Vries et al., 2019	Social media and body dissatisfaction: Investigating the attenuating role of positive parent-adolescent relationships	Database	Wrong study design
Del Pozo-Cruz et al., 2019	Joint physical-activity/screen-time trajectories during early childhood: socio-demographic predictors and consequences on health-related quality-of-life and socio-emotional outcomes	Database	Wrong outcome
Delisle Nyström et al., 2023	Physical activity and screen time in Swedish children and adolescents: The Generation Pep study 2018–2021	Database	Wrong study design
Demissie et al., 2014	Associations of school violence with physical activity among U.S. high school students	Database	Wrong study design
Dempsey et al., 2019	Later is better: mobile phone ownership and child academic development, evidence from a longitudinal study	Citation Search	No association
Denisova et al., 2013	Long-term trends in tobacco smoking and physical inactivity among Siberian adolescents: A population-based study (1989-2012)	Database	Wrong exposure
Descarpentrie et al., 2023	Lifestyle patterns in European preschoolers: Associations with socio-demographic factors and body mass index	Database	No association
Descarpentrie et al., 2024	High screen time and internalizing and externalizing behaviours among children aged 3 to 14 years during the COVID-19 pandemic in France	Database	Wrong exposure
Desjarlais et al., 2010	A longitudinal study of the relation between adolescent boys and girls' computer use with friends and friendship quality: Support for the social compensation or the rich-get-richer hypothesis?	Database	Wrong outcome

Devís-Devís et al., 2009	Screen media time usage of 12-16 year-old Spanish school adolescents: Effects of personal and socioeconomic factors, season and type of day	Database	Wrong study design
Devís-Devís et al., 2012	Brief report: Association between socio-demographic factors, screen media usage and physical activity by type of day in Spanish adolescents	Database	Wrong study design
Dhir et al., 2016	Why do adolescents untag photos on Facebook?	Database	Wrong outcome
Dias et al., 2014	Prevalence and factors associated with sedentary behavior in adolescents	Database	Wrong outcome
Dibley et al., 2014	A longitudinal study of physical activity and sedentary activity among adolescents of Ho Chi Minh City (HCMC) from 2004 to 2009: Are they doing less activity?	Database	Wrong publication type
DiMartino et al., 2021	Students and Perceived Screen Time: How Often Are Students in a Rural School District Looking at Screened Devices?	Database	Wrong publication type
Ding et al., 2024	Need for uniqueness and adolescents' problematic internet use: Longitudinal evidence on the role of stress and ego depletion	Database	Wrong exposure
Do et al., 2013	The associations between self-reported sleep duration and adolescent health outcomes: what is the role of time spent on Internet use?	Database	Wrong outcome
Do et al., 2018	Relationship between Problematic Internet Use, Sleep Problems, and Oral Health in Korean Adolescents: A National Survey	Database	Wrong population
Dodaj et al., 2020	A prospective study of high-school adolescent sexting behavior and psychological distress	Citation Search	Wrong exposure
Doggett et al., 2019	Examining the association between exposure to various screen time sedentary behaviours and cannabis use among youth in the COMPASS study	Database	Wrong study design
Dolatabadi et al., 2013	The relationship between computer games and quality of life in adolescents	Database	Wrong study design
Dollman et al., 2012	Physical activity and screen time behaviour in metropolitan, regional and rural adolescents: A cross-sectional study of Australians aged 9–16 years	Database	No association
Domoff et al., 2019	A Naturalistic Study of Child and Family Screen Media and Mobile Device Use	Database	Wrong outcome
Donald et al., 2020	The consequences of compulsion: A 4-year longitudinal study of compulsive internet use and emotion regulation difficulties	Database	Wrong population
Donald et al., 2024	Connected or cutoff? A 4-year longitudinal study of the links between adolescents' compulsive internet use and social support	Database	Wrong population
Dondi et al., 2022	Social Determinants of Health and Distance Learning in Italy in the Era of the SARS-CoV-2 Pandemic	Database	Wrong study design
Donelle et al., 2021	Exploring Canadian Children's Social Media Use, Digital Literacy, and Quality of Life: Pilot Cross-sectional Survey Study	Database	No association
Doskabulova et al., 2019	Social aspects in developing the health and well-being of children and adolescents in Western Kazakhstan	Database	Not english
Dredge et al., 2021	Chinese online gamers versus nongamers: A difference in social media use and associated well-being and relational outcomes?	Database	Wrong study design
Drescher et al., 2011	Caffeine and screen time in adolescence: associations with short sleep and obesity	Database	Wrong outcome
Dubey et al., 2018	Screen-based media use and screen time assessment among adolescents residing in an Urban Resettlement Colony in New Delhi, India	Database	Wrong exposure
Dubey et al., 2019	Sleep Quality Assessment of Adolescents Residing in an Urban Resettlement Colony, New Delhi, India	Database	Wrong exposure

Duch et al., 2013	Association of screen time use and language development in Hispanic toddlers: a cross-sectional and longitudinal study	Database	Wrong outcome
Dumith et al., 2012	Predictors and health consequences of screen-time change during adolescence--1993 Pelotas (Brazil) birth cohort study	Database	Wrong outcome
Dumith et al., 2012	Predictors of physical activity change during adolescence: a 3.5-year follow-up	Database	Wrong outcome
Duncan et al., 2023	Physical activity and recreational screen time change among adolescents in Canada: Examining the impact of COVID-19 in worsening inequity	Database	Wrong exposure
Durham et al., 2021	Digital Media Exposure and Predictors for Screen Time in 12-Month-Old Children: A Cross-Sectional Analysis of Data From a German Birth Cohort	Database	Wrong outcome
Durkee et al., 2012	Prevalence of pathological internet use among adolescents in Europe: demographic and social factors	Database	Wrong population
Edwards et al., 2021	Digital play and technical code: What new knowledge formations are possible?	Database	Wrong study design
Effatpanah et al., 2020	Association of Internet Addiction with Emotional and Behavioral Characteristics of Adolescents	Database	Wrong population
Efrati et al., 2023	"I have no control over how much time I play"• the Metacognitions about Online Gaming Scale: Evidence from a cross-cultural validation among Israeli adolescents	Database	Wrong exposure
Ekström et al., 2014	Spaces for public orientation? Longitudinal effects of Internet use in adolescence	Database	Wrong outcome
El Achhab et al., 2018	Physical inactivity, sedentary behaviors and dietary habits among Moroccan adolescents in secondary school	Database	Wrong outcome
El Ati et al., 2011	Television viewing, computer games usage, and body composition in adolescents: the Obe-Maghreb study	Database	Wrong publication type
Eliacik et al., 2016	Internet addiction, sleep and health-related life quality among obese individuals: a comparison study of the growing problems in adolescent health	Database	Wrong population
El-Kassas et al., 2017	Exploration of the Risk Factors of Generalized and Central Obesity among Adolescents in North Lebanon	Database	Wrong exposure
Ellis et al., 2012	Young men, mental health, and technology: implications for service design and delivery in the digital age	Database	Wrong population
Engberg et al., 2020	Heavy Screen Use on Weekends in Childhood Predicts Increased Body Mass Index in Adolescence: A Three-Year Follow-Up Study	Database	Wrong study design
Engberg et al., 2021	Physical activity among preadolescents modifies the long-term association between sedentary time spent using digital media and the increased risk of being overweight	Citation Search	Wrong exposure
Erat Nergiz et al., 2020	Excessive screen time is associated with maternal rejection behaviours in pre-school children	Database	Wrong exposure
Esposito et al., 2020	An investigation into Video Game Addiction in Pre-Adolescents and Adolescents: A Cross-Sectional Study	Database	Wrong population
Evers et al., 2020	Investigating the relation among disturbed sleep due to social media use, school burnout, and academic performance	Database	Wrong outcome
Exelmans et al., 2015	Violent video games and delinquent behavior in adolescents: A risk factor perspective	Database	Wrong study design
Fakhouri et al., 2013	Physical activity and screen-time viewing among elementary school-aged children in the United States from 2009 to 2010	Database	Wrong study design
Falbe et al., 2015	Sleep duration, restfulness, and screens in the sleep environment	Database	Wrong study design
Faulkner et al., 2020	Are one-year changes in adherence to the 24-hour movement guidelines associated with flourishing among Canadian youth?	Database	Wrong outcome
Feldman et al., 2003	Is physical activity differentially associated with different types of sedentary pursuits?	Database	Wrong study design

Feng et al., 2019	The Relationship Between Adolescents' Stress and Internet Addiction: A Mediated-Moderation Model	Database	Wrong study design
Feng et al., 2023	Children's peer rejection trajectories and internet gaming addiction: A five-wave growth mixture model	Database	Wrong exposure
Ferguson et al., 2013	Not Worth the Fuss After All? Cross-sectional and Prospective Data on Violent Video Game Influences on Aggression, Visuospatial Cognition and Mathematics Ability in a Sample of Youth	Database	Wrong exposure
Ferguson et al., 2019	A Preregistered Longitudinal Analysis of Aggressive Video Games and Aggressive Behavior in Chinese Youth	Database	Wrong outcome
Ferjan Ramírez et al., 2022	Electronic media and social features of language input in bilingually-raised Latinx infants	Database	Wrong study design
Ferreira et al., 2017	Epidemiology of Internet Use by an Adolescent Population and its Relation with Sleep Habits	Database	Wrong population
Fitzpatrick et al., 2022	An examination of bedtime media and excessive screen time by Canadian preschoolers during the COVID-19 pandemic	Database	Wrong study design
Flannery et al., 2024	Developmental changes in brain function linked with addiction-like social media use two years later	Database	Wrong exposure
Fleming-Milici et al., 2020	Adolescents' engagement with unhealthy food and beverage brands on social media	Database	Wrong outcome
Floros et al., 2013	Cyberbullying in Cyprus—Associated parenting style and psychopathology	Database	Wrong study design
Floros et al., 2013	The relationship between optimal parenting, Internet addiction and motives for social networking in adolescence	Database	Wrong study design
Foerster et al., 2018	A Prospective Cohort Study of Adolescents' Memory Performance and Individual Brain Dose of Microwave Radiation from Wireless Communication	Database	Wrong study design
Foerster et al., 2019	Impact of Adolescents' Screen Time and Nocturnal Mobile Phone-Related Awakenings on Sleep and General Health Symptoms: A Prospective Cohort Study	Database	Wrong outcome
Foley et al., 2011	It's not just the television: Survey analysis of sedentary behavior in New Zealand young people	Database	Wrong outcome
Fomby et al., 2021	Adolescent Technology, Sleep, and Physical Activity Time in Two US Cohorts	Database	Wrong study design
Fontana et al., 2022	Problematic internet use as a moderator between personality dimensions and internalizing and externalizing symptoms in adolescence	Database	Wrong study design
Fontana et al., 2023	Narcissistic traits and problematic internet use among youths: A latent change score model approach	Database	Wrong exposure
Fors et al., 2019	Differential relationships of child anxiety and depression to child report and parent report of electronic media use	Citation Search	Wrong study design
Forte et al., 2023	Associations between screen-time, physical activity and depressive symptoms differ based on gender and screen-time mode	Citation Search	Wrong study design
Francis et al., 2011	Tracking of TV and video gaming during childhood: Iowa Bone Development Study	Citation Search	Wrong outcome
Freed et al., 2018	Variation in Generational Perceptions of Child Health and Well-being	Database	Wrong population
Frelut et al., 2010	Sleep loss, weight gain	Database	Wrong publication type
Frey et al., 2023	Adolescents' drinking behavior off- and online: Disentangling exposure effects and selective exposure in networked communication structures	Database	No association
Friesem et al., 2020	Tuned in: The importance of peer feedback with foster youth creating media	Database	Wrong study design
Frøyland et al., 2020	Physical Fighting and Leisure Activities among Norwegian Adolescents—Investigating Co-occurring Changes from 2015 to 2018	Database	Wrong study design

Fung et al., 2023	Adherence to 24-hour movement recommendations and health indicators in early adolescence: Cross-sectional and longitudinal associations in the adolescent brain cognitive development study	Database	Wrong exposure
Furthner et al., 2018	Education, school type and screen time were associated with overweight and obesity in 2930 adolescents	Database	No association
Fye et al., 2019	Self-injurious behavior and social media use by adolescents	Database	Wrong study design
Gagnon et al., 2016	Social media modulation of mood and anxiety in adolescents with chronic visible skin conditions	Database	Wrong publication type
Gall and et al., 2017	Gender differences in sleep hygiene practices and sleep quality in New Zealand adolescents aged 15 to 17 years	Database	Wrong exposure
Gámez-Guadix et al., 2013	Longitudinal and reciprocal relations of cyberbullying with depression, substance use, and problematic internet use among adolescents	Database	Wrong population
Gámez-Guadix et al., 2014	Depressive symptoms and problematic internet use among adolescents: analysis of the longitudinal relationships from the cognitive-behavioral model	Database	Wrong population
Gámez-Guadix et al., 2015	Problematic Internet use and problematic alcohol use from the cognitive-behavioral model: a longitudinal study among adolescents	Database	Wrong population
Gámez-Guadix et al., 2016	Risky online behaviors among adolescents: Longitudinal relations among problematic Internet use, cyberbullying perpetration, and meeting strangers online	Database	Wrong study design
Gan et al., 2019	Unhealthy Lifestyle Associated with Higher Intake of Sugar-Sweetened Beverages among Malaysian School-Aged Adolescents	Database	Wrong exposure
Gan et al., 2023	Positive youth development attributes and cyberbullying victimization among Chinese middle school students: A longitudinal moderated mediation model involving internet gaming disorder and depression	Database	Wrong exposure
Gan et al., 2023	Positive youth development attributes and cyberbullying victimization among Chinese middle school students: A longitudinal moderated mediation model involving internet gaming disorder and depression.	Database	Duplicate
Gan et al., 2023	Positive youth development attributes, mental disorder, and problematic online behaviors in adolescents: a longitudinal study amidst the COVID-19 pandemic.	Database	Wrong exposure
Gan et al., 2023	Reconsidering depression and internet gaming disorder from positive youth development perspective: A longitudinal study in Chinese adolescents	Database	Wrong exposure
Gao et al., 2020	When adolescents face both Internet addiction and mood symptoms: A cross-sectional study of comorbidity and its predictors	Database	Wrong study design
Garcia-Continente et al., 2014	Factors associated with media use among adolescents: A multilevel approach	Database	Wrong study design
García-Hermoso et al., 2017	Associations between the duration of active commuting to school and academic achievement in rural Chilean adolescents	Database	Wrong outcome
García-Hermoso et al., 2017	Relationship of weight status, physical activity and screen time with academic achievement in adolescents	Database	Wrong exposure
García-Hermoso et al., 2023	Association between daily physical education attendance and meeting 24-hour movement guidelines in adolescence and adulthood	Database	Wrong exposure
Garmy et al., 2018	Sleep Habits and Nighttime Texting Among Adolescents	Database	Wrong study design
Garmy et al., 2019	Is sleep duration associated with self-reported overall health, screen time, and nighttime texting among adolescents?	Database	Wrong study design
Gates et al., 2013	Body Mass Index of First Nations youth in Ontario, Canada: influence of sleep and screen time	Database	Wrong study design

Gebremariam et al., 2013	Are screen-based sedentary behaviors longitudinally associated with dietary behaviors and leisure-time physical activity in the transition into adolescence?	Database	Wrong study design
Gebremariam et al., 2020	Correlates of screen time and mediators of differences by parental education among adolescents	Database	Wrong study design
Geng et al., 2023	Problematic use of the internet among adolescents: A four-wave longitudinal study of trajectories, predictors and outcomes.	Database	Wrong exposure
Gentile et al., 2011	Pathological video game use among youths: a two-year longitudinal study	Database	Wrong population
Gentile et al., 2014	Protective effects of parental monitoring of children's media use a prospective study	Database	Wrong outcome
Genuneit et al., 2018	Media consumption and sleep quality in early childhood: results from the Ulm SPATZ Health Study	Database	Wrong outcome
George et al., 2020	Young Adolescents' Digital Technology Use, Perceived Impairments, and Well-Being in a Representative Sample	Database	Wrong study design
Georgiou et al., 2018	Relations between student motivation, immersion and learning outcomes in location-based augmented reality settings	Database	Wrong study design
Geraee et al., 2019	The relationship between family social capital, social media use and life satisfaction in adolescents	Database	Wrong study design
Geraghty et al., 2019	Low physical activity levels and high screen times are associated with increased weight and Adverse body composition at 5 years of age: Findings from the ROLO Kids study	Database	Wrong exposure
Getachew et al., 2019	Tobacco and alcohol consumption among adolescents living in urban and rural part of Ethiopia	Database	Wrong outcome
Geurts et al., 2023	How specific is alcohol-specific self-control? A longitudinal study of the mediating role of alcohol-specific self-control in the relation between general self-control and adolescent alcohol use	Database	Wrong study design
Geurts et al., 2023	Predicting adolescents' problematic social media use from profiles of Internet-specific parenting practices and general parenting dimensions	Database	Wrong exposure
Geusens et al., 2017	Strategic Self-Presentation or Authentic Communication? Predicting Adolescents' Alcohol References on Social Media	Database	Wrong outcome
Ghali et al., 2019	Validation of the Arabic version of the Bergen Facebook Addiction Scale in Tunisian adolescents	Database	Wrong population
Ghobadi et al., 2018	Eating breakfast and snacks while television viewing are associated with some cardio metabolic risk factors among Iranian children	Database	Wrong exposure
Gingras et al., 2023	Adolescents and Social Media: Longitudinal Links Between Types of Use, Problematic Use and Internalizing Symptoms.	Database	Duplicate
Giovanelli et al., 2022	Adolescent technology-use rules and sleep in a large representative sample	Database	Wrong outcome
Gireesh et al., 2018	Impact of health behaviours and deprivation on well-being in a national sample of English young people	Database	Wrong outcome
Goel et al., 2013	A study on the prevalence of internet addiction and its association with psychopathology in Indian adolescents	Database	Wrong population
Goldfield et al., 2011	Video game playing is independently associated with blood pressure and lipids in overweight and obese adolescents	Database	Wrong study design
Goldfield et al., 2016	Screen time is associated with depressive symptomatology among obese adolescents: a HEARTY study	Database	Wrong study design
Goldstone et al., 2019	Associations between sleep and mental health in children aged 9 and 10 years	Database	Wrong publication type
Goldstone et al., 2020	Sleep Disturbance Predicts Depression Symptoms in Early Adolescence: Initial Findings From the Adolescent Brain Cognitive Development Study	Database	Wrong study design

Golshevsky et al., 2020	Time spent watching television impacts on body mass index in youth with obesity, but only in those with shortest sleep duration	Database	Wrong study design
Gong et al., 2018	Insufficient Sleep Duration and Overweight/Obesity among Adolescents in a Chinese Population	Database	Wrong outcome
González-Cabrera et al., 2018	Relationship between cyberbullying and health-related quality of life in a sample of children and adolescents	Database	Wrong exposure
Gopinath et al., 2012	Physical activity and sedentary behaviors and health-related quality of life in adolescents	Database	Wrong exposure
Gordon-Larsen et al., 2000	Determinants of adolescent physical activity and inactivity patterns	Database	Wrong exposure
Gordon-Larsen et al., 2002	Ethnic differences in physical activity and inactivity patterns and overweight status	Database	Wrong outcome
Gordon-Larsen et al., 2004	Longitudinal physical activity and sedentary behavior trends: adolescence to adulthood	Database	Wrong exposure
Graf et al., 2008	Obesity, Blood Pressure and Health-Related Behaviour among German Children and Adolescents	Database	Wrong exposure
Graff et al., 2013	Screen time behaviours may interact with obesity genes, independent of physical activity, to influence adolescent BMI in an ethnically diverse cohort	Database	Wrong study design
Grant et al., 2020	Sleep and Physical Activity Patterns in Urban American Indian Children	Database	No association
Graves et al., 2008	Energy expenditure in adolescents playing new generation computer games	Database	Wrong study design
Greca et al., 2016	Physical activity and screen time in children and adolescents in a medium size town in the South of Brazil	Database	Wrong exposure
Greer et al., 2018	Screen media, prosocial behavior, and aggression: Does attachment moderate effects of exposure	Database	Wrong study design
Gregori et al., 2012	Understanding the role of physical- and screenactivity in promoting overweight in children:An international perspective	Database	Wrong publication type
Grøntved et al., 2013	Screen time viewing behaviors and isometric trunk muscle strength in youth	Database	Wrong study design
Grøntved et al., 2015	A prospective study of screen time in adolescence and depression symptoms in young adulthood	Database	Wrong outcome
Grover et al., 2015	Nocturnal text messaging patterns on sleep health in adolescents	Database	Wrong publication type
Grover et al., 2016	Effects of Instant Messaging on School Performance in Adolescents	Database	Wrong study design
Gu et al., 2014	Study of adolescents' internet use and internet addiction in Shanghai, China: Implications for social work practice	Database	Wrong population
Gu et al., 2020	A longitudinal study of daily hassles, internet expectancy, self-control, and problematic internet use in Chinese adolescents: A moderated mediation model	Database	Wrong population
Guerrero et al., 2019	24-Hour Movement Behaviors and Impulsivity	Database	Wrong outcome
Guerrero et al., 2019	Screen time and problem behaviors in children: exploring the mediating role of sleep duration	Database	Wrong study design
Gunnell et al., 2016	Examining the bidirectional relationship between physical activity, screen time, and symptoms of anxiety and depression over time during adolescence	Citation Search	Wrong exposure
Guo et al., 2012	The relationship between Internet addiction and depression among migrant children and left-behind children in China	Database	Wrong population
Guo et al., 2022	Associations between Parents' Digital Media Habits, Engagement, Awareness, and Movement Guidelines among Preschool-Age Children: International Ipreschooler Surveillance Study	Database	Wrong outcome
Gupta et al., 2022	Reviewing the Impact of Social Media on the Mental Health of Adolescents and Young Adults	Database	Wrong publication type

Guxens et al., 2016	Outdoor and indoor sources of residential radiofrequency electromagnetic fields, personal cell phone and cordless phone use, and cognitive function in 5–6 years old children	Database	Wrong exposure
Haeghele et al., 2019	Prevalence of Meeting Physical Activity, Screen-Time, and Sleep Guidelines Among Children and Adolescents With and Without Visual Impairments in the United States	Database	Wrong outcome
Hagge et al., 2021	Viral Affirmation as Pressure to Perform: Exploring the Role of Affect in Participatory Culture	Database	Wrong publication type
Haile et al., 2023	Health-related quality of life and adherence to physical activity and screen time recommendations in schoolchildren: Longitudinal cohort Ciao Corona	Database	Wrong exposure
Hajian-Tilaki et al., 2012	Prevalences of overweight and obesity and their association with physical activity pattern among Iranian adolescents aged 12-17 years	Database	Wrong study design
Hall-L and e et al., 2012	Social isolation as a predictor of future risk: A longitudinal study	Database	Wrong exposure
Hamilton et al., 2012	Promoting active kids: Investigating mothers, decisions about their young child,s physical activity and screen time behaviours	Database	Wrong publication type
Hamilton et al., 2016	A psychosocial analysis of parents' decisions for limiting their young child's screen time: An examination of attitudes, social norms and roles, and control perceptions	Database	Wrong outcome
Hamilton et al., 2023	Daily and average associations of physical activity, social media use, and sleep among adolescent girls during the COVIDâ€• 19 pandemic	Database	Wrong study design
Hands et al., 2011	The associations between physical activity, screen time and weight from 6 to 14 yrs: the Raine Study	Database	Wrong outcome
Hansen et al., 2016	Physical activity, screen time, and school absenteeism: self-reports from NHANES 2005-2008	Database	Wrong outcome
Hansstein et al., 2017	The relationship between new media exposure and fast food consumption among Chinese children and adolescents in school: a rural-urban comparison	Database	Wrong study design
Harandian et al., 2024	Family Meal Environment Differentially Conditions the Prospective Association between Early Childhood Screen Time and Key Social Relationships in Adolescent Girls.	Database	Wrong exposure
Hardus et al., 2003	Public perceptions of the causes and prevention of obesity among primary school children	Database	Wrong outcome
Hardy et al., 2007	Changes in sedentary behavior among adolescent girls: a 2.5-year prospective cohort study	Database	Wrong outcome
Hardy et al., 2010	Screen time and metabolic risk factors among adolescents	Database	Wrong study design
Hardy et al., 2012	Co-occurrence of obesogenic risk factors among adolescents	Database	Wrong outcome
Hardy et al., 2018	Association Between Sitting, Screen Time, Fitness Domains, and Fundamental Motor Skills in Children Aged 5-16Â Years: Cross-Sectional Population Study	Database	Wrong outcome
Harrington et al., 2016	Video games as virtual teachers: Prosocial video game use by children and adolescents from different socioeconomic groups is associated with increased empathy and prosocial behaviour	Database	Wrong study design
Hartas et al., 2021	The Social Context of Adolescent Mental Health and Wellbeing: Parents, Friends and Social Media	Database	Wrong study design
Hasanen et al., 2021	Sociodemographic Correlates of Parental Co-Participation in Digital Media Use and Physical Play of Preschool-Age Children	Database	Wrong study design
Hashem et al., 2018	Physical Activity and Sedentary Behaviors Levels of Kuwaiti Adolescents: The Study of Health and Activity Among Adolescents in Kuwait	Database	No association
Hatzigianni et al., 2022	Young children"s design thinking skills in makerspaces	Database	Wrong study design
Hauck et al., 2019	Time Spent in Sedentary Activity Is Related to Gross Motor Ability During the Second Year of Life	Database	Wrong outcome

Hauser et al., 2010	2009 AERA distinguished lecture: Causes and consequences of cognitive functioning across the life course	Database	Wrong study design
Hay et al., 2018	Seven-year-olds' aggressive choices in a computer game can be predicted in infancy	Database	Wrong exposure
Hayer et al., 2019	Simuliertes Glücksspiel im Internet: Ergebnisse einer quantitativen Befragung von Schülern und Schülerinnen zu Konsummustern und Risikobedingungen = Simulated gambling online: Results of a quantitative school-based survey with regard to consumption patterns and risk factors	Database	Not english
Haynie et al., 2019	Associations of media use and nocturnal sleep duration among us adolescents: mediating effects of chronotype	Database	Wrong publication type
He et al., 2014	Factors associated with obesity: A cross-sectional survey of children aged 6-12 years in Shanghai, China	Database	Wrong exposure
He et al., 2017	Follow-up study on the association between problematic cell phone use and cognitive function of college students in Chizhou City in 2014-2015	Database	Not english
Helgadóttir et al., 2023	COVID-19 induced changes in physical activity patterns, screen time and sleep among Swedish adolescents - a cohort study.	Database	Wrong exposure
Hellfeldt et al., 2020	Cyberbullying and psychological well-being in young adolescence: the potential protective mediation effects of social support from family, friends, and teachers	Database	Wrong study design
Hena et al., 2019	Social jetlag, screen time and night-time texting among adolescents	Database	Wrong publication type
Hena et al., 2020	Social Jetlag and Its Association With Screen Time and Nighttime Texting Among Adolescents in Sweden: A Cross-Sectional Study	Database	Wrong study design
Henderson et al., 2014	Insulin secretion and its association with physical activity, fitness and screen time in children	Database	Wrong exposure
Henzel et al., 2022	Hooked on virtual social life. Problematic social media use and associations with mental distress and addictive disorders	Database	Wrong population
Herman et al., 2012	Sedentary behaviour characteristics in 8-10 year old children at risk for obesity	Database	Wrong study design
Herman et al., 2014	Sedentary behavior in a cohort of 8- to 10-year-old children at elevated risk of obesity	Database	Wrong study design
Herman et al., 2015	Adolescent weight misperceptions: Association with screen time but not physical activity	Database	Wrong publication type
Herman et al., 2015	Physical activity, screen time and self-rated health and mental health in Canadian adolescents	Database	Wrong exposure
Hesketh et al., 2007	Stability of television viewing and electronic game/computer use in a prospective cohort study of Australian children: Relationship with body mass index	Database	Wrong exposure
Hestetun et al., 2019	Lifestyle, appearance satisfaction and depressive symptoms in 13-16Å years old Norwegian adolescents - A cross-sectional study	Database	Wrong study design
Hicks et al., 2019	Examining the Association Between Screen Time, Beverage and Snack Consumption, and Weight Status Among Eastern North Carolina Youth	Database	Wrong exposure
Hill et al., 2015	The kids are all right online: Teen girls' experiences with self-presentation, impression management & aggression on Facebook	Database	Wrong study design
Hinkley et al., 2014	How are young children's outdoor play time and screen time associated with their social skills?	Database	Wrong study design
Hisam et al., 2018	Does playing video games effect cognitive abilities in Pakistani children?	Database	Wrong study design
Hisler et al., 2020	Associations between screen time and short sleep duration among adolescents varies by media type: evidence from a cohort study	Database	Wrong study design

Hjorth et al., 2014	Fitness predicts decreased physical activity and increased sedentary time, but not vice versa: Support from a longitudinal study in 8- to 11-year-old children	Database	Wrong outcome
Hoare et al., 2017	Depression, psychological distress and Internet use among community-based Australian adolescents: a cross-sectional study	Database	Wrong study design
Hobbs et al., 2019	Using related data to explore associations between childhood, parental, and environmental factors and childhood obesity in New Zealand: A nationally representative cross-sectional study	Database	Wrong outcome
Hökby et al., 2016	Are Mental Health Effects of Internet Use Attributable to the Web-Based Content or Perceived Consequences of Usage? A Longitudinal Study of European Adolescents	Database	Wrong study design
Hökby et al., 2023	Longitudinal Effects of Screen Time on Depressive Symptoms among Swedish Adolescents: The Moderating and Mediating Role of Coping Engagement Behavior.	Database	Wrong exposure
Hong et al., 2014	A group-based modeling approach to estimating longitudinal trajectories of Korean adolescents' on-line game time	Database	No association
Hopkinson et al., 2024	Association of time spent on social media with youth cigarette smoking and e-cigarette use in the UK: a national longitudinal study.	Database	Wrong study design
Hossain et al., 2022	Social and electronic media exposure and generalized anxiety disorder among people during COVID-19 outbreak in Bangladesh: A preliminary observation	Database	Wrong population
Hrafnkelsdottir et al., 2018	Less screen time and more frequent vigorous physical activity is associated with lower risk of reporting negative mental health symptoms among Icelandic adolescents	Database	Wrong exposure
Hrafnkelsdottir et al., 2020	Less screen time and more physical activity is associated with more stable sleep patterns among Icelandic adolescents	Database	Wrong study design
Hu et al., 2023	A latent transition analysis of internet addiction in early adolescents and its contributing factors	Database	Wrong exposure
Huang et al., 2013	Correlates of physical activity and screen-based behaviors in Chinese children	Database	Wrong study design
Huang et al., 2020	Abnormal brain activity in adolescents with Internet addiction who attempt suicide: an assessment using functional magnetic resonance imaging	Database	Wrong outcome
Huang et al., 2020	Screen exposure during early life and the increased risk of astigmatism among preschool children: findings from Longhua child cohort study	Citation Search	Wrong exposure
Huang et al., 2023	Adherence to 24-hour movement guidelines in relation to the risk of overweight and obesity among children and adolescents	Database	Wrong exposure
Huang et al., 2023	Developmental trajectories of adolescent Internet addiction: Interpersonal predictors and adjustment outcomes	Database	Wrong exposure
Huhman et al., 2012	Physical activity and screen time: trends in U.S. children aged 9-13 years, 2002-2006	Database	No association
Hunter et al., 2018	The 3-Year Longitudinal Impact of Sedentary Behavior on the Academic Achievement of Secondary School Students	Database	Wrong study design
Husárová et al., 2015	Age and Gender Differences in Prevalence of Screen Based Behaviour, Physical Activity and Health Complaints among Slovak School-aged Children	Database	Wrong study design
Husarova et al., 2018	Do sleeping habits mediate the association between time spent on digital devices and school problems in adolescence?	Database	Wrong study design
Hysing et al., 2015	Sleep and use of electronic devices in adolescence: results from a large population-based study	Database	Wrong study design
Ikeda et al., 2014	Association between mobile phone use and depressed mood in Japanese adolescents: a cross-sectional study	Database	Wrong outcome
Inoue et al., 2016	Children's Media Use and Self-Regulation Behavior: Longitudinal Associations in a Nationwide Japanese Study	Database	Wrong study design

Ishaque et al., 2012	Frequency of and factors leading to obesity and overweight in school children	Database	Wrong exposure
Ishii et al., 2020	Joint associations of leisure screen time and physical activity with academic performance in a sample of Japanese children	Database	Wrong outcome
Jackson et al., 2007	What children do on the internet: Domains visited and their relationship to socio-demographic characteristics and academic performance	Database	Wrong outcome
Jackson et al., 2011	A longitudinal study of the effects of internet use and videogame playing on academic performance and the roles of gender, race and income in these relationships	Database	Wrong outcome
Jackson et al., 2021	Adverse childhood experiences and digital media use among U.S. children	Database	Wrong outcome
Jago et al., 2013	Parental modelling, media equipment and screen-viewing among young children: Cross-sectional study	Database	Wrong exposure
Jain et al., 2020	Study of internet addiction and its association with depression and insomnia in university students	Database	Wrong population
James et al., 2017	Digital Life and Youth Well-being, Social Connectedness, Empathy, and Narcissism	Database	Wrong publication type
Janakiraman et al., 2018	Using Game-Based Learning to Facilitate Attitude Change for Environmental Sustainability	Database	Wrong publication type
Jang et al., 2015	Obesity-risk behaviors in korean american children and their associations with body mass index (BMI)	Database	Wrong exposure
Jansari et al., 2012	Towards a novel ecologically-valid assessment of executive functions in children and adolescents: Could virtual reality be the answer?	Database	Wrong publication type
Janssen et al., 2012	Screen time and physical violence in 10 to 16-year-old Canadian youth	Database	Wrong study design
Jari et al., 2014	A Nationwide Survey on the Daily Screen Time of Iranian Children and Adolescents: The CASPIAN - IV Study	Database	Wrong outcome
Jenkins et al., 2020	Social networking site use in young adolescents: Association with health-related quality of life and behavioural difficulties	Database	Wrong study design
Jeong et al., 2019	Reciprocal relationship between depression and Internet gaming disorder in children: A 12-month follow-up of the iCURE study using cross-lagged path analysis	Database	Wrong population
Jhang et al., 2024	Negative life events and internet gaming disorder among Chinese adolescents: A longitudinal moderated mediation analysis of maladaptive cognition and neuroticism	Database	Wrong exposure
Jiang et al., 2014	Recreational screen-time among Chinese adolescents: a cross-sectional study	Database	Wrong exposure
Jiang et al., 2015	Sleep duration, schedule and quality among urban Chinese children and adolescents: associations with routine after-school activities	Database	Wrong study design
Jiang et al., 2023	Association between physical activity and depressive symptoms in adolescents: A prospective cohort study	Database	Wrong exposure
Jin et al., 2023	The association between childhood maltreatment and internet addiction among Chinese junior middle school students: Prospective cohort study	Database	Wrong exposure
Jin et al., 2023	The association between childhood maltreatment and internet addiction among Chinese junior middle school students: prospective cohort study.	Database	Wrong exposure
Jodkowska et al., 2013	Sedentary behaviour 13-years-olds and its association with selected health behaviours, parenting practices and body mass	Database	Not english
John et al., 2017	Television viewing pattern among adolescents of Udupi district	Database	Wrong exposure
Jolin et al., 2011	Television viewing and its impact on childhood behaviors	Database	Wrong publication type
Jolin et al., 2012	Internet use and depression in children and adolescents	Database	Wrong population

Jones et al., 2012	A case for targeting marketing and availability in school food policy: Adolescents' food purchases at school and exposure to television, internet, and video games	Database	Wrong study design
Joseph et al., 2022	Touch Screen Device Usage and its Effect on Sleep among Young Children: Do Parents Delude Younger Generation Deliberately? Time to Ruminare and Impede this Technological Harm	Database	Wrong outcome
Julia et al., 2013	Sleep and physical activity pattern of obese children	Database	Wrong publication type
Jun et al., 2015	Academic stress and Internet addiction from general strain theory framework	Database	Wrong population
Jun et al., 2016	The reciprocal longitudinal relationships between mobile phone addiction and depressive symptoms among Korean adolescents	Database	Wrong population
Jun et al., 2017	Associations of Caffeinated Beverage Consumption and Screen Time with Excessive Daytime Sleepiness in Korean High School Students	Database	Wrong study design
Jun et al., 2019	Longitudinal Influences of Depressive Moods on Problematic Mobile Phone Use and Negative School Outcomes among Korean Adolescents	Database	Wrong exposure
Kaar et al., 2019	Longitudinal assessment of sleep patterns during early childhood and their association with obesity	Database	Wrong outcome
Kabala et al., 2014	ICook 4-H: Report of the correlation between the block kids physical activity screener and accelerometer-derived physical activity in 9-10 year old children	Database	Wrong publication type
Kaess et al., 2014	Pathological Internet use among European adolescents: psychopathology and self-destructive behaviours	Database	Wrong population
Kaewchin et al., 2019	The prevalence and determinants of PRECEDE framework and health literacy associated with overweight and obesity among adolescents: A population-based survey of 12-19 years-old in the northeast of Thailand	Database	Wrong study design
Kamal et al., 2013	Determinants of problematic internet use among el-minia high school students, egypt	Database	Wrong population
Kamga Fogno et al., 2023	Associations between screen use, outdoor time/daylight exposure and sleep changes during the first COVID-19 lockdown in French children from the ELFE and EPIPAGE2 birth cohorts	Database	Wrong exposure
Kan et al., 2022	Examining Access to Digital Technology by Race and Ethnicity and Child Health Status Among Chicago Families	Database	Wrong outcome
Kang et al., 2010	Association between screen time and metabolic syndrome in children and adolescents in Korea: the 2005 Korean National Health and Nutrition Examination Survey	Database	Wrong outcome
Kato et al., 2018	National data showed that delayed sleep in six-year-old children was associated with excessive use of electronic devices at 12 years	Database	Wrong study design
Kaur et al., 2020	Associations between digital technology and substance use among US adolescents: Results from the 2018 Monitoring the Future survey	Citation Search	Wrong study design
Kaur et al., 2022	Prevalence of Screen Time Among Children Aged 2 to 5 Years in Chandigarh, a North Indian Union Territory	Database	Wrong study design
Kautiainen et al., 2005	Use of information and communication technology and prevalence of overweight and obesity among adolescents	Database	Wrong study design
Kawabe et al., 2020	Prevalence of Internet addiction in Japan: Comparison of two cross-sectional surveys	Database	Wrong population
Kaya et al., 2016	Association between attitudes towards internet usage and health practices in high-school students in 2 schools in Turkey: A cross-sectional study	Database	Wrong study design
Keles et al., 2019	A systematic review: The influence of social media on depression, anxiety and psychological distress in adolescents	Database	Wrong publication type
Kelly et al., 2019	Social Media Use and Adolescent Mental Health: Findings From the UK Millennium Cohort Study	Database	Wrong study design

Kelly et al., 2022	What (if anything) is going on? Examining longitudinal associations between social media use and mental ill-health among young people	Citation Search	Wrong publication type
Khan et al., 2017	Is physical inactivity associated with depressive symptoms among adolescents with high screen time? Evidence from a developing country	Citation Search	Wrong study design
Khan et al., 2018	Insufficient physical activity in combination with high screen time is associated with adolescents' psychosocial difficulties	Database	Wrong exposure
Khan et al., 2024	Intense and problematic social media use and sleep difficulties of adolescents in 40 countries	Database	Wrong study design
Khemakhem et al., 2016	Virtual sexuality of the Tunisian teenagers	Database	Wrong publication type
Khumsri et al., 2015	Prevalence of Facebook Addiction and Related Factors Among Thai High School Students	Database	Wrong population
Kiatrungrit et al., 2014	Cross-sectional study of use of electronic media by secondary school students in Bangkok, Thailand	Database	Wrong outcome
Kim et al., 2010	The effect of perceived and structural neighborhood conditions on adolescents' physical activity and sedentary behaviors	Database	Wrong exposure
Kim et al., 2015	Quantile regression analyses of associated factors for body mass index in Korean adolescents	Database	Wrong outcome
Kim et al., 2016	Resting-State Peripheral Catecholamine and Anxiety Levels in Korean Male Adolescents with Internet Game Addiction	Database	Wrong population
Kim et al., 2017	The associations between internet use time and school performance among Korean adolescents differ according to the purpose of internet use	Database	Wrong outcome
Kim et al., 2018	Lack of sleep is associated with internet use for leisure	Database	Wrong outcome
Kim et al., 2019	Smartphone use and sleep in children	Database	Wrong publication type
Kim et al., 2020	Association between Smartphone Usage and Mental Health in South Korean Adolescents: The 2017 Korea Youth Risk Behavior Web-Based Survey	Database	Wrong outcome
Kim et al., 2020	Relationships of internet gaming reasons to biological indicators and risk of internet gaming addiction in Korean adolescent male game users	Database	Wrong study design
Kim et al., 2020	The relationship between smartphone overuse and sleep in younger children: a prospective cohort study	Database	Wrong study design
Kim et al., 2023	Associations between digital media use and lack of physical exercise among middle-school adolescents in Korea	Database	Wrong study design
Kim et al., 2024	Associations of Broader Parental Factors with Children's Happiness and Weight Status through Child Food Intake, Physical Activity, and Screen Time: A Longitudinal Modeling Analysis of South Korean Families.	Database	Wrong exposure
Kim et al., 2024	Does screen time during early childhood affect adolescent aggressive behaviour?: The moderated mediating role of parenting stress and language ability	Database	Wrong exposure
Kirkorian et al., 2022	The impact of touchscreen interactivity on U.S. toddlers' selective attention and learning from digital media	Database	Wrong outcome
Kirlic et al., 2019	Too much screen time, poor physical health, and few extracurricular activities are associated with poor neurocognitive functioning in the ABCD cohort of 9-10-year-old youth	Database	Wrong publication type
Kirlic et al., 2021	Extracurricular activities, screen media activity, and sleep may be modifiable factors related to children's cognitive functioning: evidence from the ABCD Study®	Citation Search	No association
Kiselev et al., 2020	Computer Game Addiction Has Negative Effect on Visuospatial Abilities in 8-Year-Old Children	Database	Wrong population
Kiss et al., 2022	Screen time and sleep in young adolescents before and across the first year of the covid-19 pandemic	Database	Wrong publication type

Kiss et al., 2023	Effects of the COVID-19 pandemic on screen time and sleep in early adolescents	Database	Wrong study design
Kiviruusu et al., 2024	Excessive internet use among finnish young people between 2017 and 2021 and the effect of covid-19	Database	Wrong outcome
Klar et al., 2019	Relationship Between (Pathological) Internet Use and Sleep Problems in a Longitudinal Study	Database	Not english
Klar et al., 2019	Zusammenhänge von (pathologischer) Internetnutzung mit Schlafproblemen im Längsschnitt = Relationship between (pathological) Internet use and sleep problems in a longitudinal study	Database	Not english
Kleppang et al., 2022	Electronic media use and symptoms of depression among adolescents in Norway	Database	Wrong study design
Ko et al., 2009	Predictive values of psychiatric symptoms for internet addiction in adolescents: a 2-year prospective study	Database	Wrong population
Ko et al., 2014	Peer influences positively predicted adolescent internet addiction via positive outcome expectancy of internet use among junior high school students in Taiwan: One-year followup study	Database	Wrong population
Koca et al., 2019	Influence of internet addiction on academic, sportive, and recreative activities in adolescents	Database	Wrong population
Koch et al., 2024	Socioeconomic status and young people's digital maturity: The role of parental mediation	Database	Wrong study design
Koenig et al., 2016	Refuge in Digital Worlds - the Association of Critical Life Events with Pathological Internet Use in Adolescence	Database	Not english
Koenig et al., 2016	Zuflucht in digitalen Welten—Zum Zusammenhang von kritischen Lebensereignissen mit pathologischem Internetgebrauch im Jugendalter = Refuge in digital worlds—The association of critical life events with pathological Internet use in adolescence	Database	Not english
Konca et al., 2022	Digital technology usage of young children: Screen time and families	Database	Wrong outcome
Kong et al., 2020	The effect of social anxiety on mobile phone dependence among Chinese adolescents: A moderated mediation model	Database	Wrong population
Konijn et al., 2013	YouTube as a research tool: three approaches	Database	Wrong study design
Koning et al., 2017	Social media and internet gaming disorder: The role of internet-specific parenting	Database	Wrong publication type
Kormas et al., 2011	Risk factors and psychosocial characteristics of potential problematic and problematic internet use among adolescents: A cross-sectional study	Database	Wrong study design
Kornienko et al., 2014	The effects of friendship network popularity on depressive symptoms during early adolescence: moderation by fear of negative evaluation and gender	Database	Wrong outcome
Koronczai et al., 2020	Parental bonding and problematic internet or social media use among adolescents	Database	Wrong population
Koźybska et al., 2019	Problematic Internet Use and health behaviors in adolescent residents of urban and rural areas in Poland – a cross-sectional study	Database	Wrong population
Kracht et al., 2020	Relationship between the 24-Hour Movement Guidelines and fundamental motor skills in preschoolers	Database	Wrong outcome
Kracht et al., 2022	Association of Night-Time Screen-Viewing with Adolescents' Diet, Sleep, Weight Status, and Adiposity	Database	Wrong study design
Kracht et al., 2023	Association between maternal and infant screen time with child growth and development: A longitudinal study	Database	Wrong exposure
Kracht et al., 2023	Association between maternal and infant screen time with child growth and development: A longitudinal study.	Database	Wrong exposure
Krassas et al., 2001	Determinants of body mass index in Greek children and adolescents	Database	Wrong exposure
Kraxenberger et al., 2022	Wreading on Online Literature Platforms	Database	Wrong population

Krist et al., 2017	Association of individual and neighbourhood socioeconomic status with physical activity and screen time in seventh-grade boys and girls in Berlin, Germany: a cross-sectional study	Database	Wrong outcome
Krist et al., 2020	Determinants of Physical Activity and Screen Time Trajectories in 7th to 9th Grade Adolescents-A Longitudinal Study	Database	Wrong exposure
Krogh et al., 2015	A comparison between prospective Internet-based and paper diary recordings of headache among adolescents in the general population	Database	Wrong outcome
Krogh et al., 2021	A longitudinal examination of daily amounts of screen time and technoferece in infants aged 2–11 months and associations with maternal sociodemographic factors	Database	Wrong exposure
Krossbakken et al., 2018	A Cross-Lagged Study of Developmental Trajectories of Video Game Engagement, Addiction, and Mental Health	Database	Wrong population
Kucker et al., 2021	Processes and pathways in development via digital media: Examples from word learning	Database	Wrong publication type
Kühn et al., 2014	Positive association of video game playing with left frontal cortical thickness in adolescents	Database	Wrong study design
Kumpulainen et al., 2021	Young Children's Digital Literacy Practices in the Sociocultural Contexts of Their Homes	Database	Wrong study design
Kurup et al., 2022	A longitudinal investigation of observed adolescent text-based sexting and adjustment	Citation Search	No association
Kurz et al., 2023	Trajectories of child mental health, physical activity and screen-time during the COVID-19 pandemic considering different family situations: results from a longitudinal birth cohort.	Database	Wrong exposure
Kwon et al., 2020	Sleep Quality as a Mediator of the Relationship Between Cyber Victimization and Depression	Database	Wrong outcome
L and is et al., 2016	Gender differences in adolescents between sleep actigraphy and electronic devices in the home	Database	Wrong publication type
La et al., 2017	Weight-related behaviors among US adolescents: A social network approach	Database	Wrong outcome
Lacy et al., 2012	Screen time and physical activity behaviours are associated with health-related quality of life in Australian adolescents	Database	Wrong study design
Lahti et al., 2024	What counteracts problematic social media use in adolescence? A cross-national observational study	Database	Wrong study design
Lai et al., 2015	The mediating role of Internet addiction in depression, social anxiety, and psychosocial well-being among adolescents in six Asian countries: a structural equation modelling approach	Database	Wrong population
Lai et al., 2017	The presence of heavy Internet using peers is protective of the risk of problematic Internet use (PIU) in adolescents when the amount of use increases	Database	Wrong population
Lai et al., 2023	Longitudinal associations between problematic Internet use, self-esteem, and depressive symptoms among Chinese adolescents.	Database	Wrong exposure
Laidlaw et al., 2021	'This Is Your Brain on Devices': Media Accounts of Young Children's Use of Digital Technologies and Implications for Parents and Teachers	Database	Wrong publication type
Lajous et al., 2009	Screen time and adiposity in adolescents in Mexico	Database	Wrong study design
Lam et al., 2010	Problematic internet use and self-injurious behaviour among adolescents in China	Database	Wrong population
Lam et al., 2013	Violent online games exposure and cyberbullying/victimization among adolescents	Database	Wrong study design
Lane et al., 2012	Correlates and implications of high screen time among high and low active Irish nine-year olds	Database	Wrong publication type
Lange et al., 2017	Electronic media use and insomnia complaints in German adolescents: gender differences in use patterns and sleep problems	Database	Wrong study design

Lardinois et al., 2023	Procrastination Predicts Future Internet Use Disorders in Adolescents but Not Vice Versa: Results from a 12-Month Longitudinal Study.	Database	Wrong exposure
Lau et al., 2018	Prevalence and factors of self-corrective intention among Hong Kong secondary school students who are self-assessed Internet addiction cases	Database	Wrong population
Lau et al., 2024	Longitudinal relationships between risky online behaviors and positive technological development among early adolescents: A person-centered approach	Database	Wrong exposure
Laurson et al., 2008	Lack of association between television viewing, soft drinks, physical activity and body mass index in children	Database	Wrong exposure
Lee et al., 2014	The impact of handheld devices on healthy lifestyles among school age children: A report from project healthy schools	Database	Wrong study design
Lee et al., 2015	Re-visiting internet addiction among Taiwanese students: a cross-sectional comparison of students' expectations, online gaming, and online social interaction	Database	Wrong population
Lee et al., 2016	Adolescent internet use and social integration: Analysis from a longitudinal cohort survey	Database	Wrong publication type
Lee et al., 2017	Relationship between Mobile Phone Addiction and the Incidence of Poor and Short Sleep among Korean Adolescents: a Longitudinal Study of the Korean Children & Youth Panel Survey	Database	Wrong exposure
Lee et al., 2018	Prevalence and risk factors for problematic Internet use among rural adolescents in Korea	Database	Wrong population
Lee et al., 2018	Role of parental and environmental characteristics in toddlers' physical activity and screen time: Bayesian analysis of structural equation models	Database	Wrong population
Lee et al., 2019	Negative Life Events and Problematic Internet Use as Factors Associated With Psychotic-Like Experiences in Adolescents	Database	Wrong population
Lee et al., 2019	Sociodemographic correlates of physical activity and screen time among adolescents in Canada and Guatemala: Results from the COMPASS system	Database	Wrong exposure
Lee et al., 2024	Understanding longitudinal relations among frequent social media use, electronic nicotine delivery systems use, and internalizing mental health problems among U.S. adolescents	Database	Duplicate
Lehnhard et al., 2023	Longitudinal relationship between screen time, cardiorespiratory fitness, and waist circumference of children and adolescents: a 3-year cohort study.	Database	Wrong exposure
Lemola et al., 2015	Adolescents' electronic media use at night, sleep disturbance, and depressive symptoms in the smartphone age	Citation Search	Wrong study design
Leonard et al., 2021	Bedtime media use and sleep: evidence for bidirectional effects and associations with attention control in adolescents	Citation Search	Wrong exposure
Leppänen et al., 2020	Association of screen time with long-term stress and temperament in preschoolers: results from the DAGIS study	Database	Wrong outcome
Lessem et al., 2018	Heritability of screen time in the ABCD study	Database	Wrong publication type
Leung et al., 2014	Predicting Internet risks: a longitudinal panel study of gratifications-sought, Internet addiction symptoms, and social media use among children and adolescents	Database	Wrong population
Leventhal et al., 2021	Digital media use and suicidal behavior in U.S. adolescents, 2009–2017	Database	Wrong study design
Leventhal et al., 2021	Digital media use and suicidal behavior in US adolescents, 2009–2017	Citation Search	Wrong study design
Li et al., 2010	Risk factors associated with short sleep duration among Chinese school-aged children	Database	Wrong exposure
Li et al., 2017	Effects of online social networking use on inter-personal and psychological well-being among students in China: A longitudinal study	Database	Wrong population

Li et al., 2017	Insomnia partially mediated the association between problematic Internet use and depression among secondary school students in China	Database	Wrong population
Li et al., 2018	Online social networking addiction and depression: The results from a large-scale prospective cohort study in Chinese adolescents	Database	Wrong exposure
Li et al., 2018	Sleep duration and factors related to sleep loss in 3-14-year-old children in Beijing: A cross-sectional survey	Database	Wrong study design
Li et al., 2019	Relationship between anxiety, depression, sex, obesity, and internet addiction in Chinese adolescents: A short-term longitudinal study	Database	Wrong exposure
Li et al., 2019	The Mediating Role of Coping Styles on Impulsivity, Behavioral Inhibition/Approach System, and Internet Addiction in Adolescents From a Gender Perspective	Database	Wrong population
Li et al., 2019	The role of depressive symptoms, anxiety symptoms, and school functioning in the association between peer victimization and internet addiction: A moderated mediation model	Database	Wrong study design
Li et al., 2020	The influence of environmental pressure on Internet Use Disorder in adolescents: The potential mediating role of cognitive function	Database	Wrong population
Li et al., 2022	Examining the Effects of Digital Devices on Students' Learning Performance and Motivation in an Enhanced One-to-One Environment: A Longitudinal Perspective	Database	Wrong outcome
Li et al., 2023	A latent profile transition analysis and influencing factors of internet addiction for adolescents: A short-term longitudinal study.	Database	Wrong exposure
Li et al., 2024	Network analysis of social anxiety and problematic mobile phone use in Chinese adolescents: A longitudinal study.	Database	Wrong exposure
Liang et al., 2016	Gender differences in the relationship between internet addiction and depression: A cross-lagged study in Chinese adolescents	Database	Wrong population
Liau et al., 2015	Pathological video-gaming among youth: A prospective study examining dynamic protective factors	Database	Wrong population
Liebherr et al., 2022	Screen Time and Attention Subdomains in Children Aged 6 to 10 Years	Database	Wrong study design
Lien et al., 2020	Adherence to 24-hour movement guidelines and academic performance in adolescents	Database	Wrong outcome
Lima et al., 2020	Sleep Hours: Risk behavior in adolescents from different countries	Database	Wrong outcome
Lin et al., 2018	Association between online and offline social support and internet addiction in a representative sample of senior high school students in Taiwan: The mediating role of self-esteem	Database	Wrong outcome
Lin et al., 2018	Positive outcome expectancy mediates the relationship between social influence and Internet addiction among senior high-school students	Database	Wrong population
Lin et al., 2023	The connections among problematic usage of the internet, psychological distress, and eating disorder symptoms: A longitudinal network analysis in chinese adolescents	Database	Wrong exposure
Lioret et al., 2007	Child overweight in France and its relationship with physical activity, sedentary behaviour and socioeconomic status	Database	Wrong outcome
Liou et al., 2012	Prevalence and correlates of self-induced vomiting as weight-control strategy among adolescents in Taiwan	Database	Wrong outcome
Lister et al., 2011	Compulsive text messaging: Do youth need to kick the habit?	Database	Wrong population
Liu et al., 2010	Co-varying patterns of physical activity and sedentary behaviors and their long-term maintenance among adolescents	Database	Wrong outcome

Liu et al., 2011	Problematic Internet use and health in adolescents: data from a high school survey in Connecticut	Database	Wrong population
Liu et al., 2015	Long term effects of video and computer game heavy use on health, mental health and education outcomes among adolescents in the us	Database	Wrong population
Liu et al., 2017	Self-harm and its association with internet addiction and internet exposure to suicidal thought in adolescents	Database	Wrong outcome
Liu et al., 2017	The associations between long time of mobile phone use and sleep disturbances and emotional distress among youth: A prospective cohort study	Database	Wrong publication type
Liu et al., 2019	Prolonged mobile phone use is associated with depressive symptoms in Chinese adolescents	Database	Wrong outcome
Liu et al., 2020	Cyberbullying victimization and problematic Internet use among Chinese adolescents: Longitudinal mediation through mindfulness and depression	Database	Wrong population
Liu et al., 2020	Prolonged Mobile Phone Use Is Associated with Poor Academic Performance in Adolescents	Database	Wrong outcome
Liu et al., 2023	Symptom relationships between internet addiction and anxiety across primary and middle school students during the Omicron lockdown	Database	Wrong exposure
Liu et al., 2023	The trajectories and associations of insomnia symptoms with addictive behaviours in adolescents: A two-year longitudinal study	Database	Wrong exposure
Livingstone et al., 2015	What difference does "the digital" make to children's experiences of risk?	Database	Wrong publication type
Liz and ra et al., 2019	Screen time and moderate-to-vigorous physical activity changes and displacement in adolescence: A prospective cohort study	Database	Wrong outcome
Lo Coco et al., 2020	Examining bi-directionality between Fear of Missing Out and problematic smartphone use. A two-wave panel study among adolescents	Database	Wrong population
Lo et al., 2019	Dietary practice, sleep pattern and childhood obesity in Macao	Database	Wrong exposure
Lobelo et al., 2009	Electronic media exposure and its association with activity-related outcomes in female adolescents: cross-sectional and longitudinal analyses	Database	Wrong exposure
Lopes et al., 2014	Trends in screen time on week and weekend days in a representative sample of Southern Brazil students	Database	Wrong outcome
Lopez et al., 2019	Media Multitasking Is Associated With Higher Body Mass Index in Pre-adolescent Children	Database	Wrong study design
Loss et al., 2014	Do social networking sites enhance the attractiveness of risky health behavior? Impression management in adolescents' communication on facebook and its ethical implications	Database	Wrong outcome
Lucibello et al., 2024	Factors associated with prospective changes in weight control intentions among adolescents	Database	Wrong outcome
Lung et al., 2020	Relationships between internet use, deliberate self-harm, and happiness in adolescents: A Taiwan birth cohort pilot study	Database	Wrong study design
Lutchmedial et al., 2012	The relationships between cardiovascular risk factors, lifestyle choices and academic performance in successive grade 10 cohorts in a small urban centre in New Brunswick	Database	Wrong exposure
Lyngdoh et al., 2019	Diet, Physical Activity, and Screen Time among School Students in Manipur	Database	No association
Ma et al., 2018	Relationships between exposure to online pornography, psychological well-being and sexual permissiveness among hong kong chinese adolescents: A three-wave longitudinal study	Database	Wrong study design
Ma et al., 2021	The association between screen time and reported depressive symptoms among adolescents in Sweden	Citation Search	Wrong study design

Ma et al., 2023	Internet use time and mental health among rural adolescents in China: A longitudinal study.	Database	Duplicate
Ma et al., 2023	The role of depressive symptoms and social support in the association of internet addiction with non-suicidal self-injury among adolescents: A cohort study in China	Database	Wrong exposure
Ma et al., 2023	The role of depressive symptoms and social support in the association of internet addiction with non-suicidal self-injury among adolescents: a cohort study in China.	Database	Duplicate
Ma et al., 2024	Does screen media hurt young children's social development? Longitudinal associations between parental engagement, children's screen time, and their social competence	Database	Wrong exposure
Ma et al., 2024	Does Screen Media Hurt Young Children's Social Development? Longitudinal Associations between Parental Engagement, Children's Screen Time, and Their Social Competence	Database	Duplicate
Machado et al., 2016	Physical activity patterns vs sedentary behaviours, awareness of recommendations and overweight in physically active male Brazilian adolescents-the fit food study	Database	Wrong exposure
Machimbarrena et al., 2019	Profiles of Problematic Internet Use and Its Impact on Adolescents' Health-Related Quality of Life	Database	Wrong population
Machold et al., 2012	Social networking patterns/hazards among irish teenagers	Database	Wrong study design
Madigan et al., 2019	Association between Screen Time and Children's Performance on a Developmental Screening Test	Database	Wrong outcome
Madrid-Valero et al., 2023	Problematic technology use and sleep quality in young adulthood: Novel insights from a nationally representative twin study	Database	Wrong exposure
Magee et al., 2013	Patterns of health behaviours predict obesity in Australian children	Database	Wrong outcome
Magee et al., 2014	Bidirectional relationships between sleep duration and screen time in early childhood	Database	Wrong exposure
Magee et al., 2014	Lack of sleep could increase obesity in children and too much television could be partly to blame	Database	Wrong outcome
Magriplis et al., 2019	The relationship between behavioral factors, weight status and a dietary pattern in primary school aged children: The GRECO study	Database	Wrong exposure
Maharjan et al., 2022	Binocular vision findings in normally-sighted school aged children who used digital devices	Database	Wrong outcome
Maher et al., 2019	Physical activity and screen time in out of school hours care: An observational study	Database	No association
Maheux et al., 2024	Longitudinal change in appearance-related social media consciousness and depressive symptoms: A within-person analysis during early-to-middle adolescence	Database	Wrong exposure
Maheux et al., 2024	Longitudinal Change in Appearance-Related Social Media Consciousness and Depressive Symptoms: A Within-Person Analysis during Early-to-Middle Adolescence.	Database	Duplicate
Major et al., 2023	Effect of school lockdown due to the COVID-19 pandemic on screen time among adolescents in Hungary: a longitudinal analysis.	Database	Wrong exposure
Malinakova et al., 2018	Adolescent religious attendance and spirituality—Are they associated with leisure-time choices?	Database	Wrong study design
Männikkö et al., 2015	Problematic digital gaming behavior and its relation to the psychological, social and physical health of Finnish adolescents and young adults	Database	Wrong population
Männikkö et al., 2018	Problematic Gaming Behavior Among Finnish Junior High School Students: Relation to Socio-Demographics and Gaming Behavior Characteristics	Database	Wrong population
Männikkö et al., 2020	Associations between Childhood and Adolescent Emotional and Behavioral Characteristics and Screen Time of Adolescents	Database	Wrong outcome

Manousaki et al., 2020	Tune out and turn in: the influence of television viewing and sleep on lipid profiles in children	Database	Duplicate
Mantey et al., 2022	Digital screen time and suicidality during high school: How important is cyberbullying? A mediation analysis using the youth risk behavioral surveillance survey, 2011-2019	Database	Wrong outcome
Manyanga et al., 2019	Prevalence and correlates of adherence to movement guidelines among urban and rural children in Mozambique: A cross-sectional study	Database	Wrong study design
Maras et al., 2015	Screen time is associated with depression and anxiety in Canadian youth	Database	Wrong study design
Marino et al., 2020	Social norms and e-motions in problematic social media use among adolescents	Database	Wrong study design
Marques et al., 2014	Trends and correlates of overweight and obesity among adolescents from 2002 to 2010: a three-cohort study based on a representative sample of Portuguese adolescents	Database	Wrong outcome
Marret et al., 2018	Victimization After Meeting With Online Acquaintances: A Cross-Sectional Survey of Adolescents in Malaysia	Database	Wrong outcome
Martinez-Gomez et al., 2009	Associations between sedentary behavior and blood pressure in young children	Database	Wrong outcome
Martins et al., 2018	Internet addiction and health status among adolescents-a cross-sectional study	Database	Wrong population
Mathers et al., 2009	Electronic media use and adolescent health and well-being: cross-sectional community study	Database	Wrong study design
Mathew et al., 2020	Impact of problematic internet use on the self-esteem of adolescents in the selected school, kerala, india	Database	Wrong population
Mazzer et al., 2018	Longitudinal associations between time spent using technology and sleep duration among adolescents	Database	Wrong outcome
McAllister et al., 2021	Associations Between Adolescent Depression and Self-Harm Behaviors and Screen Media Use in a Nationally Representative Time-Diary Study	Database	Wrong study design
McArthur et al., 2021	Longitudinal Associations Between Screen Use and Reading in Preschool-Aged Children	Database	Wrong population
McArthur et al., 2023	Child and family factors associated with child mental health and well-being during COVID-19	Database	Wrong exposure
McClure et al., 2017	Infant and toddler engagement in video mediated interactions	Database	Wrong study design
McNeill et al., 2020	Compliance with the 24-Hour movement guidelines for the early years: Cross-sectional and longitudinal associations with executive function and psychosocial health in preschool children	Database	Wrong outcome
Md. Yusof et al., 2024	Internet engagement and its association with weight parameters among Malaysian adolescents	Database	Wrong study design
Meeus et al., 2019	Like me (please?): Connecting online self-presentation to pre- and early adolescents' self-esteem	Database	Wrong study design
Mei et al., 2019	Sleep patterns, mobile phone use and psychological symptoms among adolescents in coastal developed city of China: An exploratory cross-sectional study	Database	Wrong study design
Mejia et al., 2019	Compulsive gaming in secondary school students from five peruvian cities: Usage and addiction to the Pokémon GO game	Database	Wrong population
Mellouli et al., 2018	Prevalence and Predictors of Internet Addiction among College Students in Sousse, Tunisia	Database	Wrong population
Meng et al., 2024	Prevalence, predictive factors, and impacts of internet gaming disorder among adolescents: A population-based longitudinal study.	Database	No association
Menon et al., 2019	The integrated role of multiple healthy weight behaviours on overweight and obesity among adolescents: a cross-sectional study	Database	Wrong outcome

Merchant et al., 2001	Teenagers in cyberspace: An investigation of language use and language change in internet chatrooms	Database	Wrong study design
Mérelle et al., 2017	Which health-related problems are associated with problematic video-gaming or social media use in adolescents? A large-scale cross-sectional study	Database	Wrong population
Meter et al., 2015	When Sharing Is a Bad Idea: The Effects of Online Social Network Engagement and Sharing Passwords with Friends on Cyberbullying Involvement	Database	Wrong outcome
Metzler et al., 2015	Adolescent self-presentation on Facebook and its impact on self-esteem	Database	Wrong study design
Mewton et al., 2023	Longitudinal relationships between lifestyle risk factors and neurodevelopment in early adolescence	Database	Wrong exposure
Meziat Filho et al., 2015	Association between home posture habits and low back pain in high school adolescents	Database	Wrong study design
Meziat-Filho et al., 2017	Association between home posture habits and neck pain in High School adolescents	Database	Wrong study design
Michels et al., 2015	Psychosocial quality of life, lifestyle and adiposity: A longitudinal study in preschoolers	Database	Wrong exposure
Mielke et al., 2019	Associations between self-reported physical activity and screen time with cardiometabolic risk factors in adolescents: Findings from the 1993 Pelotas (Brazil) Birth Cohort Study	Database	Wrong outcome
Miguel-Berges et al., 2019	Combined longitudinal effect of physical activity and screen time on food and beverage consumption in European preschool children: The toybox-study	Database	Wrong outcome
Miguez et al., 2020	Disparities in Sleep Health among Adolescents: The Role of Sex, Age, and Migration	Database	Wrong study design
Mihara et al., 2016	Internet use and problematic Internet use among adolescents in Japan: A nationwide representative survey	Database	Wrong population
Mills et al., 2012	The relationship of emotional competence to levels of aggression in adolescents	Database	Wrong publication type
Mir and a et al., 2018	Body dissatisfaction, physical activity, and sedentary behavior in female adolescents	Database	Wrong outcome
Mireku et al., 2018	Total recall in the SCAMP cohort: Validation of self-reported mobile phone use in the smartphone era	Database	Wrong outcome
Mireku et al., 2019	Night-time screen-based media device use and adolescents' sleep and health-related quality of life	Database	Wrong study design
Mireku et al., 2019	Processed data on the night-time use of screen-based media devices and adolescents' sleep quality and health-related quality of life	Database	Wrong study design
Mitchell et al., 2013	Greater screen time is associated with adolescent obesity: a longitudinal study of the BMI distribution from Ages 14 to 18	Database	Wrong outcome
Mitchell et al., 2016	What features make online harassment incidents upsetting to youth?	Database	Wrong outcome
Mittal et al., 2012	Problematic use of social networking sites among first year medical students	Database	Wrong population
Mittal et al., 2012	Problematic use of social networking sites among urban school going teenagers	Database	Wrong population
Mladenovik et al., 2010	Ðøhe influence of peers over adolescents' sexual conduct in Macedonia	Database	Wrong study design
Mo et al., 2018	The role of social support on emotion dysregulation and Internet addiction among Chinese adolescents: A structural equation model	Database	Wrong study design
Mohammadi et al., 2016	Association between playing computer games and mental and social health among male adolescents in Iran in 2014	Database	Wrong study design
Mohammed et al., 2020	Magnitude of sedentary behavior and associated factors among secondary school adolescents in Debre Berhan town, Ethiopia	Database	Wrong exposure

Mohan et al., 2022	Pretend Play in Pre-Schoolers: Need for Structured and Free Play in Pre-Schools	Database	Wrong outcome
Molina et al., 2016	Sleep Duration, Sedentary Behaviors, and Physical Activity across Weight Status in Hispanic Toddlers' Participants of the WIC Program	Database	Wrong study design
Morales-Ruán et al., 2009	Obesity, overweight, screen time and physical activity in Mexican adolescents	Database	Wrong exposure
Moreno et al., 2007	What are adolescents showing the world about their health risk behaviors on MySpace?	Database	Wrong study design
Morgan et al., 2021	Risk and protective factors for frequent electronic device use of online technologies	Database	Wrong study design
Morgenstern et al., 2009	Relation between socioeconomic status and body mass index: evidence of an indirect path via television use	Database	Wrong study design
Morioka et al., 2017	The association between alcohol use and problematic internet use: A large-scale nationwide cross-sectional study of adolescents in Japan	Database	Wrong population
Morley et al., 2012	What factors are associated with excess body weight in Australian secondary school students?	Database	Wrong outcome
Mortazavi et al., 2019	Association of Screen Time with Sleep Duration in School-Aged Children; a Nationwide Propensity Score-Matched Analysis: The CASPIAN-V Study	Database	Wrong outcome
Mukhopadhyay et al., 2013	Adolescent and the net: The lure of the virtual worldan Indian perspective	Database	Wrong publication type
Mundt et al., 2014	That's what friends are for: adolescent peer social status, health-related quality of life and healthcare costs	Database	Wrong outcome
Mundy et al., 2017	The association between electronic media and emotional and behavioral problems in late childhood	Citation Search	Wrong study design
Munezawa et al., 2011	The association between use of mobile phones after lights out and sleep disturbances among Japanese adolescents: a nationwide cross-sectional survey	Database	Wrong outcome
Muñoz-Miralles et al., 2014	Access and use of new information and telecommunication technologies among teenagers at high school, health implications. JOITIC Study	Database	Not english
Muñoz-Miralles et al., 2016	The problematic use of Information and Communication Technologies (ICT) in adolescents by the cross sectional JOITIC study	Database	Wrong population
Murugesan et al., 2018	Sleep patterns, hygiene and daytime sleepiness among adolescent school-goers in three districts of Tamil Nadu: A descriptive study	Database	Wrong study design
Must et al., 2007	Activity, inactivity, and screen time in relation to weight and fatness over adolescence in girls	Database	Wrong outcome
Must et al., 2009	Sedentary behavior and sleep: Paradoxical effects in association with childhood obesity	Database	Wrong publication type
Myers et al., 2015	Early childhood nutrition, active outdoor play and sources of information for families living in highly socially disadvantaged locations	Database	Wrong exposure
Nagata et al., 2022	Parent-Adolescent Discrepancies in Adolescent Recreational Screen Time Reporting During the Coronavirus Disease 2019 Pandemic	Database	Wrong exposure
Nagata et al., 2022	Screen Time Use Among US Adolescents During the COVID-19 Pandemic: Findings From the Adolescent Brain Cognitive Development (ABCD) Study	Database	Wrong exposure
Nagata et al., 2022	Social epidemiology of early adolescent problematic screen use in the United States	Database	Wrong population
Nagata et al., 2023	Adverse childhood experiences and early adolescent cyberbullying in the United States	Database	Wrong exposure
Nagata et al., 2023	Screen Time and Obsessive-Compulsive Disorder Among Children 9-10 Years Old: A Prospective Cohort Study.	Database	Duplicate

Nagata et al., 2023	Screen Time from Adolescence to Adulthood and Cardiometabolic Disease: a Prospective Cohort Study.	Database	Wrong exposure
Nakayama et al., 2020	Relationship between problematic gaming and age at the onset of habitual gaming	Database	Wrong study design
Narita et al., 2024	Association of Problematic Internet Use With Psychotic Experiences and Depression in Adolescents: A Cohort Study.	Database	Wrong exposure
Nasaescu et al., 2018	Abuse of technology in adolescence and its relation to social and emotional competencies, emotions in online communication, and bullying	Database	Wrong outcome
Neuman et al., 2022	Incidental word learning through multiple media: A case for synergy	Database	Wrong publication type
Neumayer et al., 2023	Traditional bullying and cyberbullying victimization independently predict changes in problematic internet gaming in a longitudinal sample	Database	Wrong exposure
Neville et al., 2021	Bidirectional associations between screen time and children's externalizing and internalizing behaviors	Citation Search	Wrong exposure
Ng et al., 2017	Ownership and Use of Commercial Physical Activity Trackers Among Finnish Adolescents: Cross-Sectional Study	Database	Wrong study design
Nguyen et al., 2016	Excessive screen viewing time by adolescents and body fatness in a developing country: Vietnam	Database	Wrong exposure
Nieder et al., 2001	Psychosocial determination of depressive symptoms in adolescence: sex differences	Database	Not english
Nigg et al., 2022	Urban-Rural Differences in Children's and Adolescent's Physical Activity and Screen-Time Trends across 15 Years	Database	No association
Nishida et al., 2019	The association of smartphone use and depression in Japanese adolescents	Database	Wrong study design
Niu et al., 2018	Qzone use and depression among Chinese adolescents: A moderated mediation model	Database	Wrong study design
No author, 2015	Neuroanatomical correlates of behavioral rating versus performance measures of working memory in typically developing children and adolescents': Correction to Faridi et al (2014)	Database	Wrong publication type
Norman et al., 2005	Psychosocial and environmental correlates of adolescent sedentary behaviors	Database	Wrong study design
Norman et al., 2017	Sedentary Behavior and Cardiometabolic Health Associations in Obese 11-13-Year Olds	Database	Wrong study design
Nouri et al., 2022	A canonical correlation analysis of the influence of access to and use of ICT on secondary school students' academic performance	Database	Wrong outcome
Nugent et al., 2015	Voice over Internet Protocol (VoIP), video games, and the adolescent's perceived experience	Database	Wrong study design
Nursalam et al., 2019	Association between insomnia and social network site use in Indonesian adolescents	Database	Wrong study design
Nwaogwugwu et al., 2022	Utilization of Digital Media for Sexual and Reproductive Health Information among In-School Adolescents in Benin City, Nigeria	Database	Wrong outcome
Obeid et al., 2019	Internet Addiction Among Lebanese Adolescents: The Role of Self-Esteem, Anger, Depression, Anxiety, Social Anxiety and Fear, Impulsivity, and Aggression-A Cross-Sectional Study	Database	Wrong population
Oberle et al., 2020	Screen time and extracurricular activities as risk and protective factors for mental health in adolescence: A population-level study	Citation Search	Wrong exposure
Oflu et al., 2019	Video game use among secondary school students and associated factors	Database	Wrong outcome
Ogunleye et al., 2012	Prevalence of high screen time in English youth: association with deprivation and physical activity	Database	Wrong outcome

Ohannessian et al., 2009	Media use and adolescent psychological adjustment: An examination of gender differences	Citation Search	No association
Ohannessian et al., 2018	Video game play and anxiety during late adolescence: The moderating effects of gender and social context	Database	Wrong study design
Oksanen et al., 2013	Young people as victims of crime on the internet: A population-based study in Finland	Database	Wrong outcome
Olafsdottir et al., 2014	Young children's screen activities, sweet drink consumption and anthropometry: results from a prospective European study	Database	Wrong exposure
Olaleye et al., 2017	Social-media use and sexual behaviour among in-school adolescents in Ibadan, Nigeria	Database	Wrong study design
Olds et al., 2011	Sleep duration or bedtime? Exploring the relationship between sleep habits and weight status and activity patterns	Database	Wrong study design
Olds et al., 2012	The elasticity of time: associations between physical activity and use of time in adolescents	Database	Wrong study design
Olorunmoteni et al., 2017	Sleep pattern and use of electronic devices in south-western nigerian school attending adolescents	Database	Wrong publication type
Olorunmoteni et al., 2018	Sleep pattern, socioenvironmental factors, and use of electronic devices among Nigerian school-attending adolescents	Database	Wrong study design
O'Loughlin et al., 2012	Prevalence and correlates of exergaming in youth	Database	Wrong study design
O'Loughlin et al., 2019	Factors Associated with Sustained Exergaming: Longitudinal Investigation	Database	No association
Opdal et al., 2020	Is change in mental distress among adolescents predicted by sedentary behaviour or screen time? Results from the longitudinal population study The Troms ø Study: Fit Futures	Database	Wrong exposure
Operto et al., 2020	Digital Devices Use and Language Skills in Children between 8 and 36 Month	Database	Wrong study design
Orben et al., 2019	Screens, teens, and psychological well-being: Evidence from three time-use-diary studies	Citation Search	Wrong exposure
Orben et al., 2019	Social media's enduring effect on adolescent life satisfaction	Citation Search	Wrong study design
Orben et al., 2019	The association between adolescent well-being and digital technology use	Citation Search	Wrong study design
Orben et al., 2020	Teenage sleep and technology engagement across the week	Database	Wrong study design
Orduña et al., 2019	Media use of children and adolescents in the digital age: Views and practices of filipino pediatricians in a tertiary care hospital	Database	Wrong study design
Orgilés et al., 2024	Daily activities in European children and adolescents during COVID-19 school closure: A longitudinal study exploring physical activity, use of screens, and sleep patterns	Database	Wrong exposure
O'Sullivan et al., 2012	Texts from last night: Screen time, porn use, sexting, and chat as predictors of sexual intercourse experience among Canadian adolescents	Database	Wrong publication type
Ørverby et al., 2013	Changes in screen time activity in Norwegian children from 2001 to 2008: two cross sectional studies	Database	Wrong outcome
Owens et al., 2014	Physical activity and screen time in adolescents transitioning out of compulsory education: a prospective longitudinal study	Database	No association
Özçetin et al., 2019	The relationships between video game experience and cognitive abilities in adolescents	Database	Wrong study design
Ozturk et al., 2013	The relationship of affective temperament and emotional-behavioral difficulties to internet addiction in high school students	Database	Wrong study design
Ozturk et al., 2022	What do they do digitally? Identifying the home digital literacy practices of young children in Turkey	Database	Wrong study design

Park et al., 2008	Longitudinal relationships between physical activity, sedentary behaviors, and obesity in children and adolescents	Database	Wrong study design
Park et al., 2009	The association between Internet use and depressive symptoms among South Korean adolescents	Database	Wrong study design
Park et al., 2011	Preliminary study of Internet addiction and cognitive function in adolescents based on IQ tests	Database	Wrong population
Park et al., 2013	The association between problematic internet use and depression, suicidal ideation and bipolar disorder symptoms in Korean adolescents	Database	Wrong study design
Park et al., 2017	Differences in the relationship between traumatic experiences, self-esteem, negative cognition, and Internet addiction symptoms among North Korean adolescent defectors and South Korean adolescents: A preliminary study	Database	Wrong population
Parker et al., 2019	Typologies of adolescent activity related health behaviours	Database	Wrong study design
Parsons et al., 2018	Sleep matters: The association of race, bedtime, outdoor time, and physical activity with preschoolers' sleep	Database	Wrong study design
Păsărelu et al., 2018	An investigation of mediators for the relationship between parent mental health and adolescent problematic Internet use: A cross-sectional study in Romanian adolescents	Database	Wrong population
Paschke et al., 2021	Validity and Psychometric Properties of the Internet Gaming Disorder Scale in Three Large Independent Samples of Children and Adolescents	Database	Wrong study design
Paschke et al., 2022	Adolescent gaming and social media usage before and during the COVID-19 pandemic: Interim results of a longitudinal study	Database	Wrong outcome
Patel et al., 2023	Changes in pediatric movement behaviors during the COVID-19 pandemic by stages of lockdown in Ontario, Canada: A longitudinal cohort study	Database	Wrong exposure
Pathak et al., 2017	Pattern and Determinants of Physical Activity in Rural and Urban Adolescents of North India: A Population Based Study	Database	Wrong exposure
Patnaik et al., 2015	Overweight/obesity among school going adolescents and its associated factors-a cross sectional study in an urban locality of eastern India	Database	Wrong exposure
Patte et al., 2020	Are one-year changes in adherence to the 24-hour movement guidelines associated with depressive symptoms among youth?	Database	Wrong outcome
Patte et al., 2020	Predictors of One-Year Change in How Youth Perceive Their Weight	Database	Wrong study design
Paulich et al., 2021	Screen time and early adolescent mental health, academic, and social outcomes in 9-and 10-year old children: Utilizing the Adolescent Brain Cognitive Development SM (ABCD) Study	Citation Search	Wrong study design
Paulus et al., 2018	General factor analysis reveals latent variables connecting media activity to psychopathology in the ABCD cohort	Database	Wrong population
Paulus et al., 2019	Screen media activity and brain structure in youth: Evidence for diverse structural correlation networks from the ABCD study	Database	Wrong study design
Pedrero-Pérez et al., 2019	Sintomas prefrontales asociados al uso problemático de las tecnologías de la información y la comunicación (TIC) en adolescentes = Prefrontal symptoms associated with the problematic use of information technology and communication (ITC) in adolescents	Database	Not english
Peeters et al., 2018	Predicting Internet Gaming Disorder symptoms in young adolescents: A one-year follow-up study	Database	Wrong population
Pempek et al., 2009	Tipping the balance: Use of advergames to promote consumption of nutritious foods and beverages by low-income African American children	Database	Wrong study design
Pepper et al., 2023	The impact of social media use and gaming on initiation of smokeless tobacco use among rural male youth	Database	Wrong study design

Perak et al., 2018	Trends in lifestyle habits in US youth ages 6 to 19 years: National health and nutrition examination survey 2003 to 2014	Database	Wrong publication type
Pérez et al., 2019	Exposure to tobacco in video games and smoking among gamers in Argentina	Database	Wrong study design
Philippi et al., 2024	Investigating parental factors for adolescent problematic gaming and social media use – a cross-sectional and longitudinal approach	Database	No association
Philippi et al., 2024	Investigating Parental Factors for Adolescent Problematic Gaming and Social Media Use - A Cross-sectional and Longitudinal Approach.	Database	Wrong exposure
Pierce et al., 2018	Association between receptivity to tobacco advertising and progression to tobacco use in youth and young adults in the PATH study	Citation Search	Wrong exposure
Pieters et al., 2014	Effects of pre-sleep media use on sleep/wake patterns and daytime functioning among adolescents: the moderating role of parental control	Database	Wrong study design
Piguet et al., 2015	What keeps female problematic Internet users busy online?	Database	Wrong population
Piola et al., 2019	Impact of physical activity correlates in the isolated and combined presence of insufficient level of physical activity and high screen time among adolescents	Database	Wrong exposure
Piola et al., 2020	Insufficient physical activity levels and high screen time among adolescents: impact of associated factors	Database	Not english
Piteo et al., 2020	Review: Social networking sites and associations with depressive and anxiety symptoms in children and adolescents – a systematic review	Database	Wrong publication type
Pivetta et al., 2024	The influence of maternal and paternal phubbing on adolescents' problematic gaming: A two-wave mediation model	Database	Wrong exposure
Pizzo et al., 2020	Active behaviors and screen time in offspring of parents with major depressive disorder, bipolar disorder and schizophrenia	Database	Wrong population
Plitponkarnpim et al., 2018	Ict exposure in children younger than 2 years: Rates, associated factors, and health outcomes	Database	No association
Polos et al., 2015	The impact of Sleep Time-Related Information and Communication Technology (STRICT) on sleep patterns and daytime functioning in American adolescents	Database	Wrong study design
Pons et al., 2022	A comparative study of recreational screen time in neurodevelopmental disorders	Database	Wrong population
Porter et al., 2017	Associations of Physical Activity, Sedentary Time, and Screen Time With Cardiovascular Fitness in United States Adolescents: Results From the NHANES National Youth Fitness Survey	Database	Wrong outcome
Poulain et al., 2018	Reciprocal associations between electronic media use and behavioral difficulties in preschoolers	Database	Wrong study design
Pourm and et al., 2019	Social Media and Suicide: A Review of Technology-Based Epidemiology and Risk Assessment	Database	Wrong publication type
Power et al., 2017	Sleepless in school? The social dimensions of young people's bedtime rest and routines	Database	Wrong study design
Prabhakaran et al., 2016	Factors associated with internet addiction among school-going adolescents in Vadodara	Database	Wrong population
Prado et al., 2017	Perception of neighborhood safety and screen time in adolescents from Curitiba, Brazil	Database	Wrong study design
Primack et al., 2009	Association between media use in adolescence and depression in young adulthood: a longitudinal study	Database	Wrong population
Przybylski et al., 2017	A large-scale test of the goldilocks hypothesis: quantifying the relations between digital-screen use and the mental well-being of adolescents	Citation Search	Wrong study design
Przybylski et al., 2019	Digital Screen Time and Pediatric Sleep: Evidence from a Preregistered Cohort Study	Database	Wrong outcome

Psihogios et al., 2022	Social media to promote treatment adherence among adolescents and young adults with chronic health conditions: A topical review and TikTok application	Database	Wrong publication type
Pu et al., 2014	Learning to write in the digital age: Ells' literacy practices in and out of their western urban high school	Database	Wrong study design
Pu et al., 2017	Impact of communities, health, and emotional-related factors on smoking use: comparison of joint modeling of mean and dispersion and Bayes' hierarchical models on add health survey	Database	Wrong study design
Puolitaival et al., 2020	Health behaviours associated with video gaming in adolescent men: a cross-sectional population-based MOPO study	Database	Wrong study design
QI et al., 2024	Unpacking the myth in the associations between self-control and gaming disorder in children and adolescents: A comparison between traditional and random intercept cross-lagged panel model analyses	Database	Wrong population
Qin et al., 2023	Longitudinal relationships between school assets, traditional bullying, and internet gaming disorder: the role of self-control and intentional self-regulation among Chinese adolescents.	Database	Wrong exposure
Qu et al., 2024	The longitudinal relationships between short video addiction and depressive symptoms: A cross-lagged panel network analysis	Database	Wrong exposure
Radesky et al., 2014	Infant self-regulation and early childhood media exposure	Database	Wrong exposure
Rajab et al., 2020	Gaming addiction and perceived stress among Saudi adolescents	Database	Wrong population
Ran et al., 2024	The mutual overlapping impact of stress and infection on mental health problems in adolescents and youths during and after COVID-19 pandemic in China	Database	Wrong exposure
Rapee et al., 2020	Testing a concurrent model of social anxiety in preadolescence	Database	Wrong outcome
Rasmussen et al., 2015	Perceived problems with computer gaming and Internet use are associated with poorer social relations in adolescence	Database	Wrong study design
Raudsepp et al., 2019	Brief report: Problematic social media use and sleep disturbances are longitudinally associated with depressive symptoms in adolescents	Database	Wrong population
Raudsepp et al., 2019	Longitudinal associations between problematic social media use and depressive symptoms in adolescent girls	Database	Wrong population
Rechichi et al., 2017	Video game vision syndrome: A new clinical picture in children?	Database	Wrong outcome
Redmayne et al., 2013	The relationship between adolescents' well-being and their wireless phone use: a cross-sectional study	Database	Wrong study design
Reer et al., 2020	Investigating problematic social media and game use in a nationally representative sample of adolescents and younger adults	Database	Wrong population
Reer et al., 2021	A longitudinal study on online sexual engagement, victimization, and psychosocial well-being	Citation Search	Wrong population
Rehbein et al., 2013	Family-, media-, and school-related risk factors of video game addiction: A 5-year longitudinal study	Database	Wrong population
Reichenberger et al., 2024	Interactive screen-based activities predict worse actigraphic sleep health that night among adolescents	Database	Wrong study design
Reinhardt et al., 2023	Time for digital media but no time for school? An investigation of displacement effects among adolescents of gen X, Y, and Z	Database	Wrong outcome
Ren et al., 2022	The SES-based difference of adolescents' digital skills and usages: An explanation from family cultural capital	Database	Wrong publication type
Reynolds et al., 2024	Use and consequences of exercise tracking technology on exercise psychopathology and mental health outcomes in adolescents	Database	Wrong study design

Ricci et al., 2021	Digital media, book reading, and aspects of sleep and sleep-related fears in preschoolers: the Ulm SPATZ Health Study	Database	Wrong study design
Ricci et al., 2021	The Associations Between Media Use, Midpoint of Sleep, and Sleep Quality in German Preschoolers: A Mediation Analysis Based on the Ulm SPATZ Health Study	Database	Wrong outcome
Richards et al., 2010	Adolescent screen time and attachment to parents and peers	Database	Wrong outcome
Richardson et al., 2017	Adverse health and psychosocial outcomes associated with compulsive internet use	Database	Wrong publication type
Richter et al., 2020	[The Good, the Bad and the Ugly: The Relationship between social Media Use, Subjective Health and Risk Behavior Among Children and Adolescents]	Database	Wrong study design
Ridgers et al., 2012	Parents and children's perceptions of whether active video games can help children's fundamental movement skills	Database	Wrong exposure
Riedl et al., 2016	Usage patterns of internet and computer games : Results of an observational study of Tyrolean adolescents	Database	Not english
Rietz et al., 2023	Recreational screen time trajectories during early childhood and imaging-measured body composition at age 7 in the Odense child cohort.	Database	Wrong exposure
Roberston et al., 2022	Associations between screen time and internalizing disorder diagnoses among 9- to 10-year-olds	Database	Wrong study design
Roberts et al., 2000	Media and youth: access, exposure, and privatization	Database	Wrong study design
Robinson et al., 2017	Screen Media Exposure and Obesity in Children and Adolescents	Database	Wrong study design
Rodrigues et al., 2020	Social inequalities in traditional and emerging screen devices among Portuguese children: a cross-sectional study	Database	Wrong outcome
Rodriguez-Ayllon et al., 2020	Associations of physical activity and screen time with white matter microstructure in children from the general population	Database	Wrong study design
Rodriguez-Ayllon et al., 2023	Neurobiological, psychosocial, and behavioral mechanisms mediating associations between physical activity and psychiatric symptoms in youth in the Netherlands	Database	Wrong exposure
Roh et al., 2018	The validation of Implicit Association Test measures for smartphone and Internet addiction in at-risk children and adolescents	Database	Wrong population
Roman-Viñas et al., 2016	Proportion of children meeting recommendations for 24-hour movement guidelines and associations with adiposity in a 12-country study	Database	Wrong outcome
Romer et al., 2013	Older versus newer media and the well-being of United States youth: results from a national longitudinal panel	Database	Wrong population
Rorem et al., 2024	Finding the balance: The influence of movement behaviours on childhood behaviour problems	Database	Wrong exposure
Rosenqvist et al., 2016	Relationship of TV watching, computer use, and reading to children's neurocognitive functions	Citation Search	Wrong study design
Roser et al., 2016	Mobile phone use, behavioural problems and concentration capacity in adolescents: A prospective study	Database	Wrong outcome
Royuela-Colomer et al., 2018	The protective role of dispositional mindfulness against the perpetuation of cyberbullying victimization and perpetration among adolescents	Database	Wrong outcome
Ruiz et al., 2010	Physical activity, fitness, weight status, and cognitive performance in adolescents	Database	Wrong study design
Russell et al., 2015	The role of television viewing and direct experience in predicting adolescents' beliefs about the health risks of fast-food consumption	Database	Wrong exposure
S and ercock et al., 2012	Two-year longitudinal changes in screen-time and different elements of physical activity in British youth from 11 to 13 years	Database	Wrong publication type
Sakamoto et al., 2022	Sleep problems, sleep duration, and use of digital devices among primary school students in Japan	Database	Wrong population

Saleem et al., 2024	Exploring the efficacy of children's media use in enhancing L2 vocabulary acquisition	Database	Wrong study design
Saleem et al., 2024	Exploring the Efficacy of Children's Media Use in Enhancing L2 Vocabulary Acquisition	Database	Duplicate
Salmela-Aro et al., 2017	The Dark Side of Internet Use: Two Longitudinal Studies of Excessive Internet Use, Depressive Symptoms, School Burnout and Engagement Among Finnish Early and Late Adolescents	Database	Wrong study design
Salmon et al., 2013	Are associations between the perceived home and neighbourhood environment and children's physical activity and sedentary behaviour moderated by urban/rural location?	Database	Wrong population
Salomon et al., 2019	The Selfie Generation: Examining the Relationship between Social Media Use and Early Adolescent Body Image	Database	Wrong study design
Sampasa-Kanyinga et al., 2016	Use of Social Networking Sites and Adherence to Physical Activity and Screen Time Recommendations in Adolescents	Database	Wrong study design
Sampasa-Kanyinga et al., 2016	Use of social networking sites and alcohol consumption among adolescents	Database	Wrong outcome
Sampasa-Kanyinga et al., 2017	Associations between meeting combinations of 24-h movement guidelines and health-related quality of life in children from 12 countries	Database	Wrong outcome
Sampasa-Kanyinga et al., 2019	Social Media Use, School Connectedness, and Academic Performance Among Adolescents	Database	Wrong study design
Sampasa-Kanyinga et al., 2020	24-hour movement guidelines and suicidality among adolescents	Database	Wrong outcome
Sampasa-Kanyinga et al., 2020	Sex differences in the relationship between social media use, short sleep duration, and body mass index among adolescents	Database	Wrong study design
Sampasa-Kanyinga et al., 2020	Social media use and parent-child relationship: A cross-sectional study of adolescents	Database	Wrong outcome
Sánchez-Oliva et al., 2018	Lifestyle Clusters in School-Aged Youth and Longitudinal Associations with Fatness: The UP&DOWN Study	Database	Wrong exposure
Sandercock et al., 2012	Screen time and physical activity in youth: thief of time or lifestyle choice?	Database	Wrong outcome
Sanders et al., 2015	The influence of neighbourhood green space on children's physical activity and screen time: Findings from the longitudinal study of Australian children	Database	Wrong exposure
Sanders et al., 2018	The Longitudinal Impact of Screen Time on Adolescent Development: Moderation by Respiratory Sinus Arrhythmia	Database	Wrong population
Santaliestra-Pasías et al., 2012	Food consumption and screen-based sedentary behaviors in European adolescents: the HELENA study	Database	Wrong study design
Santaliestra-Pasías et al., 2014	Physical activity and sedentary behaviour in European children: the IDEFICS study	Database	Wrong study design
Santos et al., 2017	Relationship between smartphone use and musculoskeletal symptoms in adolescents	Database	Wrong publication type
Saraiva et al., 2013	Sedentarism as a stress generator in a young population of campinas, sp-Brazil	Database	Wrong publication type
Saraiva et al., 2014	Sedentarism as a stress generator in a young population of a metropolitan school	Database	Wrong publication type
Sasmaz et al., 2014	Prevalence and risk factors of Internet addiction in high school students	Database	Wrong population
Saunders et al., 2013	Associations of sedentary behavior, sedentary bouts and breaks in sedentary time with cardiometabolic risk in children with a family history of obesity	Database	Wrong study design
Saunders et al., 2017	Screen Time and Health Indicators Among Children and Youth: Current Evidence, Limitations and Future Directions	Database	Wrong publication type
Schaan et al., 2017	Association between screen time and physical activity with sufficient vitamin D status in Brazilian adolescents: The study of cardiovascular risks in adolescents (ERICA)	Database	Wrong population

Schaan et al., 2018	Prevalence and correlates of screen time among Brazilian adolescents: findings from a country-wide survey	Database	Wrong outcome
Schaan et al., 2019	Unhealthy snack intake modifies the association between screen-based sedentary time and metabolic syndrome in Brazilian adolescents	Database	Wrong outcome
Schäfer et al., 2016	Correlates of self-reported weekday sleep duration in adolescents: the 18-year follow-up of the 1993 Pelotas (Brazil) Birth Cohort Study	Database	Wrong outcome
Scharkow et al., 2014	Longitudinal patterns of problematic computer game use among adolescents and adults—A 2-year panel study	Citation Search	Wrong exposure
Schemer et al., 2021	The impact of internet and social media use on well-being: A longitudinal analysis of adolescents across nine years	Citation Search	Wrong population
Schettino et al., 2022	"To be yourself or your selfies, that is the question": The moderation role of gender, nationality, and privacy settings in the relationship between selfie-engagement and body shame	Database	Wrong population
Schoeni et al., 2015	Symptoms and Cognitive Functions in Adolescents in Relation to Mobile Phone Use during Night	Database	Wrong exposure
Schoeni et al., 2017	Symptoms and the use of wireless communication devices: A prospective cohort study in Swiss adolescents	Database	Wrong study design
Schreurs et al., 2023	Investigating the longitudinal relationships between active parental and peer mediation and adolescents' social media literacy on the positivity bias	Database	Wrong outcome
Schröder et al., 2018	Cumulative Effect of Obesogenic Behaviours on Adiposity in Spanish Children and Adolescents	Database	Wrong exposure
Schutte et al., 2019	A twin study on the correlates of voluntary exercise behavior in adolescence	Database	Wrong outcome
Schwarkow et al., 2014	Longitudinal patterns of problematic computer game use among adolescents and adults—a 2-year panel study	Database	Wrong population
Scott et al., 2019	Social media use and adolescent sleep patterns: cross-sectional findings from the UK millennium cohort study	Database	Wrong study design
Sebre et al., 2021	Digital media as a medium for adolescent identity development	Database	Wrong study design
Sebre et al., 2023	Children's problematic use of the internet in biological and social context: A one-year longitudinal study	Database	Wrong population
Sedgwick et al., 2019	Internet, social media, and online gaming in adolescent mental health patients: towards a natural language processing (nlp) approach	Database	Wrong publication type
Sedgwick et al., 2019	Social media, internet use and suicide attempts in adolescents	Database	Wrong publication type
Seo et al., 2017	Late use of electronic media and its association with sleep, depression, and suicidality among Korean adolescents	Database	Wrong study design
Ševčíková et al., 2013	Predictors of online and offline sexual activities and behaviors among adolescent	Database	Wrong outcome
Shaban et al., 2016	Perceived Body Image, Eating Behavior, and Sedentary Activities and Body Mass Index Categories in Kuwaiti Female Adolescents	Database	Wrong exposure
Shakir et al., 2018	Not all sedentary behaviour is equal: Children's adiposity and sedentary behaviour volumes, patterns and types	Database	Wrong study design
Shan et al., 2022	Longitudinal associations of tobacco-related social media involvement with cigarette and e-cigarette initiation among US adolescents	Citation Search	Wrong exposure
Shang et al., 2015	Screen time is associated with dietary intake in overweight Canadian children	Database	Wrong exposure
Shang et al., 2023	Internet addiction and depressive and anxious symptoms among chinese rural left-behind adolescents: Mediating roles of resilience and friendship quality	Database	Wrong exposure
Sharkey et al., 2018	A prospective study of self-reported sleep after a delay in school start times	Database	Wrong publication type

Sharma et al., 2017	Television viewing and its association with sedentary behaviors, self-rated health and academic performance among secondary school students in Peru	Database	Wrong study design
Shen et al., 2021	Digital technology use and BMI: Evidence from a cross-sectional analysis of an adolescent cohort study	Database	Wrong study design
Shen et al., 2024	Self-esteem disgust mediates the effect of problematic mobile social media use on non-suicidal self-harm injury in adolescents: A latent growth curve analysis	Database	Wrong exposure
Shen et al., 2024	The interplay between internet searching styles and academic self-efficacy: A longitudinal study	Database	Wrong exposure
Shih et al., 2023	Attention-deficit hyperactivity disorder in children is related to maternal screen time during early childhood in Taiwan: A national prospective cohort study	Database	Wrong exposure
Shih et al., 2023	Attention-deficit hyperactivity disorder in children is related to maternal screen time during early childhood in Taiwan: a national prospective cohort study.	Database	Wrong exposure
Shimoga et al., 2019	Associations of Social Media Use With Physical Activity and Sleep Adequacy Among Adolescents: Cross-Sectional Survey	Database	Wrong study design
Shin et al., 2019	Smartphone use and behavioral problems in young children: Evidence from South Korea	Database	Wrong publication type
Shochat et al., 2010	Sleep patterns, electronic media exposure and daytime sleep-related behaviours among Israeli adolescents	Database	Wrong study design
Shoham et al., 2012	An actor-based model of social network influence on adolescent body size, screen time, and playing sports	Database	Wrong outcome
Shoshani et al., 2024	Risk and protective factors for substance use and media addictive behaviors in adolescents during the COVID-19 pandemic	Database	Wrong exposure
Shoshani et al., 2024	The impact of social media use on psychiatric symptoms and well-being of children and adolescents in the post-covid-19 era: A four-year longitudinal study	Database	Duplicate
Shoshani et al., 2024	The longitudinal impact of the COVID-19 pandemic on adolescents' internalizing symptoms, substance use, and digital media use	Database	Wrong exposure
Shoshani et al., 2024	The longitudinal impact of the COVID-19 pandemic on adolescents' internalizing symptoms, substance use, and digital media use.	Database	Wrong outcome
Siegel et al., 2011	Correlates of physical activity and inactivity in urban Mexican youth	Database	Wrong study design
Sigel et al., 2013	Violence risk screening: Predicting cyber violence perpetration and victimization	Database	Wrong publication type
Sigmund et al., 2015	Temporal trends in overweight and obesity, physical activity and screen time among Czech adolescents from 2002 to 2014: A national health behaviour in school-aged children study	Citation Search	Wrong study design
Sigmund et al., 2020	Excessive body weight of children and adolescents in the spotlight of their parents' overweight and obesity, physical activity, and screen time	Database	No association
Sigmundová et al., 2011	Secular trends: a ten-year comparison of the amount and type of physical activity and inactivity of random samples of adolescents in the Czech Republic	Database	Wrong outcome
Sigmundová et al., 2018	Weekday-weekend variations in mother-/father-child physical activity and screen time relationship: A cross-sectional study in a random sample of Czech families with 5- to 12-year-old children	Database	Wrong exposure
Sijtsma et al., 2014	Television, sleep, outdoor play and BMI in young children: the GECKO Drenthe cohort	Database	Wrong exposure
Silva et al., 2017	Sedentary behavior and associated factors in adolescents of northeastern Brazil	Database	Wrong outcome

Silva et al., 2018	Musculoskeletal Multisite Pain and Patterns of Association After Adjusting for Sleep, Physical Activity, and Screen Time in Adolescents	Database	Wrong study design
Silva et al., 2020	National Adolescent School-based Health Survey - PeNSE 2015: Sedentary behavior and its correlates	Database	Wrong exposure
Simons et al., 2012	Active gaming in Dutch adolescents: a descriptive study	Database	Wrong study design
Simons et al., 2014	Active and non-active video gaming among Dutch adolescents: who plays and how much?	Database	Wrong outcome
Sina et al., 2021	Digital Media Use in Association with Sensory Taste Preferences in European Children and Adolescents-Results from the I.Family Study	Database	Wrong study design
Sirard et al., 2010	Adolescent physical activity and screen time: associations with the physical home environment	Database	Wrong outcome
Sirard et al., 2013	Physical activity and screen time in adolescents and their friends	Database	Wrong study design
Sisodia et al., 2019	Internet addiction prevalence and quality of life-a cross-sectional study among adolescents	Database	Wrong population
Sivanesan et al., 2019	The effect of screen time on cardiometabolic risk in young children: A longitudinal cohort study	Database	Wrong study design
Skeer et al., 2014	Screen time and early alcohol and marijuana use initiation: Findings from the 2011 youth risk behaviors survey	Database	Wrong study design
Skierkowski et al., 2012	To text or not to text? The importance of text messaging among college-aged youth	Database	Wrong population
Smith et al., 2010	Parental influences on child physical activity and screen viewing time: a population based study	Database	Wrong exposure
Smout et al., 2024	Adolescent lifestyle behaviour modification and mental health: Longitudinal changes in diet, physical activity, sleep, screen time, smoking, and alcohol use and associations with psychological distress	Database	Wrong exposure
Söderqvist et al., 2008	Use of wireless telephones and self-reported health symptoms: a population-based study among Swedish adolescents aged 15-19 years	Database	Wrong study design
Son et al., 2013	Massively multiplayer online role-playing games (MMORPG): association between its addiction, self-control and mental disorders among young people in Vietnam	Database	Wrong population
Son et al., 2018	The relationship between adolescents' internet game addiction and suicidality	Database	Wrong publication type
Song et al., 2020	Associations between screen time, negative life events, and emotional and behavioral problems among Chinese children and adolescents	Database	Wrong outcome
Song et al., 2023	Youth screen media activity patterns and associations with behavioral developmental measures and resting-state brain functional connectivity	Database	Wrong exposure
Sonneville et al., 2008	Total energy intake, adolescent discretionary behaviors and the energy gap	Database	Wrong study design
Soo An et al., 2018	Association Between Smartphone Use and Mental Health in Adolescents: National Cross-Sectional Study	Database	Wrong publication type
Sourtiji et al., 2019	The associations between screen time, sleep duration, and body mass index (BMI) in under five-year-old children	Database	Wrong outcome
Sousa et al., 2017	Sedentary behavior based on screen time: prevalence and associated sociodemographic factors in adolescents	Database	Wrong study design
Southerl and et al., 2016	Relationship Between Physical Activity and Suicidal Behaviors Among 65,182 Middle School Students	Database	Wrong outcome
Sparano et al., 2019	Sleep duration and blood pressure in children: Analysis of the pan-European IDEFICS cohort	Database	Wrong outcome
Spengler et al., 2015	Do Media Use and Physical Activity Compete in Adolescents? Results of the MoMo Study	Database	Wrong study design

Staiano et al., 2011	Daily screen time and visceral and subcutaneous adiposity in children and adolescents	Database	Wrong exposure
Stamatakis et al., 2013	Type-specific screen time associations with cardiovascular risk markers in children	Database	Wrong study design
Stavropoulos et al., 2017	A multilevel longitudinal study of experiencing virtual presence in adolescence: The role of anxiety and openness to experience in the classroom	Database	Wrong outcome
Stavropoulos et al., 2017	MMORPG gaming and hostility predict Internet Addiction symptoms in adolescents: An empirical multilevel longitudinal study	Database	Wrong population
Stavropoulos et al., 2022	Risks and opportunities for youth in the digital era: A cyber-developmental approach to mental health	Database	Wrong publication type
Stearns et al., 2017	The role of peer victimization in the physical activity and screen time of adolescents: a cross-sectional study	Database	Wrong study design
Stefanelli et al., 2023	Exposure to and speaking up against online ethnic hate speech: The role of xenophobia in a three-wave longitudinal study	Database	Wrong outcome
Steffen et al., 2009	Overweight in children and adolescents associated with TV viewing and parental weight: Project HeartBeat!	Database	Wrong exposure
Stewart et al., 2024	Unplugged: Exploring the relationship between parental monitoring of screen time and irritability, emotional regulation, and prosocial behaviors	Database	Wrong exposure
Straatmann et al., 2015	Association between psychosocial factors, physical activity and sedentary behaviors: Sex differences in adolescents from Rio de Janeiro-BRAZIL	Database	Wrong publication type
Straatmann et al., 2016	Changes in physical activity and screen time related to psychological well-being in early adolescence: findings from longitudinal study ELANA	Database	Wrong outcome
Stracciolini et al., 2017	Associations Between Sedentary Behaviors, Sleep Patterns, and BMI in Young Dancers Attending a Summer Intensive Dance Training Program	Database	Wrong outcome
Straker et al., 2006	The association between information and communication technology exposure and physical activity, musculoskeletal and visual symptoms and socio-economic status in 5-year-olds	Database	Wrong study design
Straker et al., 2013	Screen-based media use clusters are related to other activity behaviours and health indicators in adolescents	Database	Wrong study design
Strasburger et al., 2015	Should babies be watching and using screens? The answer is surprisingly complicated	Database	Wrong publication type
Strittmatter et al., 2016	A 2-year longitudinal study of prospective predictors of pathological Internet use in adolescents	Database	Wrong population
Suchert et al., 2016	Screen time, weight status and the self-concept of physical attractiveness in adolescents	Database	Wrong outcome
Sudo et al., 2017	Media exposure, interactive health literacy, and adolescents' susceptibility to future smoking	Database	Wrong exposure
Suggate et al., 2020	Screen-time influences children's mental imagery performance	Citation Search	Wrong exposure
Sugimoto et al., 2020	Use of social networking sites and desire for slimness among 10-year-old girls and boys: A population-based birth cohort study	Database	Wrong study design
Sulistiyanti et al., 2020	Relationship between screen time towards physical activity, sleep disorders, prosocial behavior and emotions of children 4-6 years	Database	Wrong outcome
Sun et al., 2009	Lifestyle and overweight among Japanese adolescents: the Toyama Birth Cohort Study	Database	Wrong study design
Sundqvist et al., 2024	A longitudinal study of the relationship between children's exposure to screen media and vocabulary development	Database	Wrong exposure
Supanitayanon et al., 2020	Screen media exposure in the first 2 years of life and preschool cognitive development: a longitudinal study	Database	Wrong exposure

Suris et al., 2014	Is Internet use unhealthy? A cross-sectional study of adolescent Internet overuse	Database	Wrong population
Suris et al., 2015	It's not the internet, it's the weight!	Database	Wrong publication type
Svensson et al., 2020	Internet use and adolescent drinking: Does it matter what young people do online?	Database	Wrong study design
Svensson et al., 2022	Does gender matter? The association between different digital media activities and adolescent well-being	Database	Wrong study design
Tabatabaee et al., 2018	Mediators in the Relationship between Internet Addiction and Body Mass Index: A Path Model Approach Using Partial Least Square	Database	Wrong population
Taechoyotin et al., 2020	Prevalence and associated factors of internet gaming disorder among secondary school students in rural community, Thailand: a cross-sectional study	Database	Wrong population
Takács et al., 2013	Changes in leisure activity among young people aged 15-18 years in Hungary: physical activity, media-consumption and smoking	Database	Not english
Takahashi et al., 2019	Risk and protective factor of developing problematic Internet use in children	Database	Wrong publication type
Takahashi et al., 2022	Longitudinal association between addictive internet use and depression in early adolescents over a 2-year period: A study using a random intercept cross-lagged model	Citation Search	Wrong exposure
Takahashi et al., 2023	The association between screen time and genetic risks for neurodevelopmental disorders in children	Database	Wrong exposure
Takeuchi et al., 2018	Impact of frequency of internet use on development of brain structures and verbal intelligence: Longitudinal analyses	Database	Wrong study design
Tambalis et al., 2019	Breakfast skipping in Greek schoolchildren connected to an unhealthy lifestyle profile. Results from the National Action for Children's Health program	Database	Wrong outcome
Tamura et al., 2017	Association between Excessive Use of Mobile Phone and Insomnia and Depression among Japanese Adolescents	Database	Wrong study design
Tanaka et al., 2019	Proportion of Japanese primary school children meeting recommendations for 24-hour movement guidelines and associations with weight status	Database	Wrong outcome
Tansriratanawong et al., 2017	Screen viewing time and externalising problems in pre-school children in Northern Thailand	Database	Wrong study design
Tao et al., 2020	Do african american male and female adolescents differ in technological engagement?: The effects of parental encouragement and adolescent technological confidence	Database	Wrong outcome
Tenzin et al., 2019	Internet Addiction among Secondary School Adolescents: A Mixed Methods Study	Database	Wrong population
Teppers et al., 2014	Loneliness and Facebook motives in adolescence: A longitudinal inquiry into directionality of effect	Citation Search	No association
Thaikla et al., 2019	Gaming behaviors of non-school based youths in Thailand which affect their health	Database	Wrong population
The Lancet, 2008	Is exposure to media violence a public-health risk?	Database	Wrong publication type
Thivel et al., 2019	Associations between meeting combinations of 24-hour movement recommendations and dietary patterns of children: A 12-country study	Database	Wrong outcome
Thorisdottir et al., 2019	Active and passive social media use and symptoms of anxiety and depressed mood among Icelandic adolescents	Citation Search	Wrong study design
Thorne et al., 2014	Video game genre preference, physical activity and screen-time in adolescent boys from low-income communities	Database	Wrong study design
Thurber et al., 2017	Body mass index trajectories of Indigenous Australian children and relation to screen time, diet, and demographic factors	Database	Wrong outcome
Tian et al., 2020	Reciprocal associations between shyness, self-esteem, loneliness, depression and internet addiction in chinese adolescents	Database	Wrong population

Timmerman et al., 2013	Relationship of body mass index to screen time in head start participants in Central Arkansas	Database	Wrong publication type
Toledano et al., 2019	Cohort Profile: The Study of Cognition, Adolescents and Mobile Phones (SCAMP)	Database	Wrong study design
Tolegenova et al., 2019	Prevalence of internet addiction and its association with mood and sleep disorders among young adults in Astana, Kazakhstan	Database	Wrong population
Top et al., 2016	Socio-demographic differences in parental monitoring of children in late childhood and adolescents' screen-based media use	Database	Wrong population
Tortolero et al., 2014	Daily violent video game playing and depression in preadolescent youth	Database	Wrong study design
Totl and et al., 2013	Adolescents' prospective screen time by gender and parental education, the mediation of parental influences	Database	Wrong outcome
Tough et al., 2012	What is the association between screen time and outcomes for canadian children?	Database	Wrong publication type
Tovar et al., 2012	Healthy-lifestyle behaviors associated with overweight and obesity in US rural children	Database	Wrong outcome
Tozzi et al., 2013	Gambling among youths in Switzerland and its association with other addictive behaviours. A population-based study	Database	Wrong population
Tran et al., 2012	Primary school children's knowledge of, and attitudes towards, healthy computer use	Database	Wrong outcome
Trang et al., 2009	Factors associated with physical inactivity in adolescents in Ho Chi Minh City, Vietnam	Database	Wrong study design
Trinh et al., 2019	Association of Trajectory and Covariates of Children's Screen Media Time	Database	Wrong exposure
Tsimtsiou et al., 2018	Pathological Internet use, cyberbullying and mobile phone use in adolescence: A school-based study in Greece	Database	Wrong population
Tsiros et al., 2017	Use-of-time and health-related quality of life in 10- to 13-year-old children: not all screen time or physical activity minutes are the same	Database	Wrong study design
Tsitsika et al., 2009	Adolescent pornographic internet site use: a multivariate regression analysis of the predictive factors of use and psychosocial implications	Database	Wrong study design
Tsitsika et al., 2009	Internet use and misuse: a multivariate regression analysis of the predictive factors of internet use among Greek adolescents	Database	Wrong population
Tsitsika et al., 2011	Association between internet gambling and problematic internet use among adolescents	Database	Wrong population
Tsitsika et al., 2014	Internet addictive behavior in adolescence: A cross-sectional study in seven European countries	Database	Wrong population
Tsitsika et al., 2014	Online social networking in adolescence: Patterns of use in six European countries and links with psychosocial functioning	Citation Search	Wrong study design
Tsitsika et al., 2016	Association between problematic internet use, socio-demographic variables and obesity among European adolescents	Database	Wrong population
Tsomokos et al., 2024	Chronotype and depression in adolescence: Results from a uk birth cohort study	Database	Wrong exposure
Tsujiguchi et al., 2018	Relationship between screen time and nutrient intake in Japanese children and adolescents: a cross-sectional observational study	Database	Wrong outcome
Turel et al., 2017	A model linking video gaming, sleep quality, sweet drinks consumption and obesity among children and youth	Database	Wrong study design
Twenge et al., 2018	Associations between screen time and lower psychological well-being among children and adolescents: Evidence from a population-based study	Citation Search	Wrong study design

Twenge et al., 2018	Decreases in psychological well-being among American adolescents after 2012 and links to screen time during the rise of smartphone technology	Citation Search	Wrong study design
Twenge et al., 2018	Increases in depressive symptoms, suicide-related outcomes, and suicide rates among US adolescents after 2010 and links to increased new media screen time	Citation Search	Wrong study design
Twenge et al., 2019	Digital media use and mental health among adolescents: evidence from four large data sets	Database	Wrong publication type
Twenge et al., 2020	Gender differences in associations between digital media use and psychological well-being: Evidence from three large datasets	Citation Search	Wrong study design
Twenge et al., 2020	Why increases in adolescent depression may be linked to the technological environment	Database	Wrong publication type
Tynes et al., 2016	Virtual Environments, Online Racial Discrimination, and Adjustment among a Diverse, School-Based Sample of Adolescents	Database	Wrong outcome
Uçar et al., 2020	Risky cyber behaviors in adolescents with depression: A case control study	Database	Wrong study design
Uhls et al., 2020	Mobile Technologies and Their Relationship to Children's Ability to Read Nonverbal Emotional Cues: A Cross-Temporal Comparison	Database	Wrong exposure
Ustinavičienė et al., 2018	Association between computer game type, playing time and sense of coherence in Lithuanian adolescents	Database	Wrong population
Vadher et al., 2019	Predictors of problematic Internet use in school going adolescents of Bhavnagar, India	Database	Wrong population
Valencia-Peris et al., 2019	Active Gaming Prevalence and Correlates by Type of Day in Spanish Youth	Database	Wrong study design
Van Den Bulck et al., 2003	Text messaging as a cause of sleep interruption in adolescents, evidence from a cross-sectional study [2]	Database	Wrong publication type
van den Eijnden et al., 2010	Compulsive internet use among adolescents: bidirectional parent-child relationships	Database	Wrong population
Van Den Eijnden et al., 2018	Do internet gaming disorder and social media disorder harmfully impact adolescents' life-satisfaction, social competence, and school grades	Database	Wrong population
Van Den Eijnden et al., 2018	The impact of heavy and disordered use of games and social media on adolescents' psychological, social, and school functioning	Database	Wrong population
van den Eijnden et al., 2019	Is the use of video games and social media related to how young people function psychosocially and at school?	Database	Wrong population
van der Schuur et al., 2018	Media multitasking and sleep problems: A longitudinal study among adolescents	Citation Search	Wrong exposure
van der Schyff et al., 2023	Mental health help-seeking behavior of male video game players: An online survey	Database	Wrong study design
van Rooij et al., 2010	Compulsive Internet use: the role of online gaming and other internet applications	Database	Wrong population
Vancampfort et al., 2019	Correlates of leisure-time sedentary behavior among 181,793 adolescents aged 12-15 years from 66 low- and middle-income countries	Database	Wrong outcome
Vanherle et al., 2023	The effects of alcohol-related social media content on adolescents' momentary perceived norms, attitudes, and drinking intentions	Database	Wrong study design
Vázquez-Nava et al., 2020	Tobacco smoking by mexican adolescents who use the whatsapp and facebook social networking platforms as a means of communication	Database	Wrong outcome
Vazsonyi et al., 2024	Developmental changes in school burnout: The importance of sleep and problematic internet use	Database	Wrong exposure
Vedøy et al., 2020	Physical activity, mental health and academic achievement: A cross-sectional study of Norwegian adolescents	Database	Wrong exposure

Veitch et al., 2012	The neighborhood social environment and body mass index among youth: a mediation analysis	Database	Wrong outcome
Venetsanou et al., 2019	Physical activity in pre-school children: Trends over time and associations with body mass index and screen time	Database	Wrong outcome
Vente et al., 2020	Association of Social Media Use and High-Risk Behaviors in Adolescents: Cross-Sectional Study	Database	Wrong study design
Vernon et al., 2017	Tracking Effects of Problematic Social Networking on Adolescent Psychopathology: The Mediating Role of Sleep Disruptions	Database	Wrong population
Vernon et al., 2018	Mobile Phones in the Bedroom: Trajectories of Sleep Habits and Subsequent Adolescent Psychosocial Development	Database	Wrong outcome
Victorino et al., 2009	The social determinants of child health: Variations across health outcomes - A population-based cross-sectional analysis	Database	Wrong outcome
Villanueva-Blasco et al., 2019	Patrón de uso de internet y control parental de redes sociales como predictor de sexting en adolescentes: Una perspectiva de género = Pattern of internet use and parental monitoring of social networks as a predictor of sexting in adolescents: A gender perspective	Database	Not english
Vulchanova et al., 2017	Editorial: Language development in the digital age	Database	Wrong publication type
Vuong et al., 2014	Passive screen time associated with unhealthy dietary consumption and physiological characteristics: A closer look at childhood behaviors	Database	Wrong exposure
Vuorre et al., 2022	There is no evidence that associations between adolescents' digital technology engagement and mental health problems have increased	Database	Wrong publication type
Wahlström et al., 2023	There's a tear in my beer: Bullying victimisation and young teenage drinking in Sweden	Database	Wrong study design
Wahyuni et al., 2019	The Relationship between the Duration of Playing Gadget and Mental Emotional State of Elementary School Students	Database	Wrong outcome
Wake et al., 2003	Television, computer use and body mass index in Australian primary school children	Database	Wrong study design
Walsh et al., 2018	Associations between 24 hour movement behaviours and global cognition in US children: a cross-sectional observational study	Database	Wrong outcome
Walsh et al., 2020	Associations between duration and type of electronic screen use and cognition in US children	Database	Wrong study design
Wang et al., 2011	Problematic Internet Use in high school students in Guangdong Province, China	Database	Wrong population
Wang et al., 2018	Prevalence of high screen time and associated factors among students: a cross-sectional study in Zhejiang, China	Database	Wrong outcome
Wang et al., 2019	Physical activity and objectively assessed sleep in 6-month-old infants in Taiwan	Database	Wrong study design
Wang et al., 2019	Tobacco Product Use and Associated Factors Among Middle and High School Students - United States, 2019	Database	Wrong outcome
Wang et al., 2022	Children and adolescents' positive youth development qualities and internet addiction during the COVID-19 pandemic: A longitudinal study in China.	Database	Wrong exposure
Wang et al., 2023	Children and adolescents' positive youth development qualities and internet addiction during the COVID-19 pandemic: A longitudinal study in China	Database	Wrong exposure
Wang et al., 2023	Longitudinal relationship between internet self-control and problematic internet use among Chinese adolescents: mediating role of meaning in life.	Database	Wrong exposure
Wang et al., 2024	The longitudinal associations between internet addiction and ADHD symptoms among adolescents.	Database	Wrong exposure
Wang et al., 2024	Vicious circle of family dysfunction and adolescent internet addiction: Do only child and non-only child exhibit differences?	Database	Wrong exposure

Warren et al., 2016	Executive function mediates prospective relationships between sleep duration and sedentary behavior in children	Database	Wrong outcome
Wartberg et al., 2017	Adolescent problematic Internet use: Is a parental rating suitable to estimate prevalence and identify familial correlates?	Database	Wrong population
Wartberg et al., 2017	The prevalence and psychosocial correlates of Internet gaming disorder Analysis in a nationally representative sample of 12- to 25-year-olds	Database	Wrong population
Wartberg et al., 2019	A longitudinal study on psychosocial causes and consequences of Internet gaming disorder in adolescence	Database	Wrong exposure
Wartberg et al., 2020	An Empirical Exploration of Longitudinal Predictors for Problematic Internet Use and Problematic Gaming Behavior	Database	Wrong population
Watanabe et al., 2016	Clustering patterns of obesity-related multiple lifestyle behaviours and their associations with overweight and family environments: A cross-sectional study in Japanese preschool children	Database	Wrong outcome
Watson et al., 2023	Parenting styles and their associations with children's body composition, activity patterns, fitness, diet, health, and academic achievement	Database	Wrong study design
Webster et al., 2019	Fundamental motor skills, screen-time, and physical activity in preschoolers	Database	Wrong exposure
Wen et al., 2009	Time spent playing outdoors after school and its relationship with independent mobility: A cross-sectional survey of children aged 10-12 years in Sydney, Australia	Database	Wrong exposure
Wethington et al., 2013	Active Screen Time Among U.S. Youth Aged 9-18 Years, 2009	Database	Wrong outcome
Whitehill et al., 2020	Exposure to Cannabis Marketing in Social and Traditional Media and Past-Year Use Among Adolescents in States With Legal Retail Cannabis	Database	Wrong exposure
Wickel et al., 2013	Longitudinal change in active and sedentary behavior during the after-school hour	Database	Wrong outcome
Widome et al., 2019	Correlates of short sleep duration among adolescents	Database	Wrong outcome
Wijtzes et al., 2014	Sedentary behaviors, physical activity behaviors, and body fat in 6-year-old children: The Generation R Study	Database	Wrong study design
Williams et al., 2018	Physical activity and sedentary behavior of US immigrant versus non-immigrant adolescents: findings from the NEXT Generation Health Study data	Database	Wrong outcome
Willoughby et al., 2008	A short-term longitudinal study of Internet and computer game use by adolescent boys and girls: prevalence, frequency of use, and psychosocial predictors	Database	Wrong study design
Willoughby et al., 2012	A longitudinal study of the association between violent video game play and aggression among adolescents	Database	Wrong outcome
Wilson et al., 2016	Mobility Status as a Predictor of Obesity, Physical Activity, and Screen Time Use among Children Aged 5-11 Years in the United States	Database	Wrong exposure
Winther et al., 2015	Leisure time computer use and adolescent bone health--findings from the Troms ø Study, Fit Futures: a cross-sectional study	Database	Wrong study design
Witt et al., 2011	Trends in youth's videogame playing, overall computer use, and communication technology use: The impact of self-esteem and the Big Five personality factors	Database	Wrong study design
Withöft et al., 2012	Zum zusammenhang von gewalthaltigen bildschirmspielen und aggression = How violent video games relate to aggression	Database	Not english
Wolfers et al., 2024	Too much screen time or too much guilt? How child screen time and parental screen guilt affect parental stress and relationship satisfaction	Database	Wrong exposure
Wong et al., 2017	Time-Use Patterns and Health-Related Quality of Life in Adolescents	Database	Wrong study design

Wong et al., 2019	The influence of parental screen time and attitudes on screen use in preschool children attending a developmental clinic	Database	Wrong publication type
Woods et al., 2016	# Sleepyteens: Social media use in adolescence is associated with poor sleep quality, anxiety, depression and low self-esteem	Citation Search	Wrong study design
Wu et al., 2012	Three essays about health and welfare	Database	Wrong population
Wu et al., 2016	Potential impact of internet addiction and protective psychosocial factors onto depression among Hong Kong Chinese adolescents - direct, mediation and moderation effects	Database	Wrong population
Wu et al., 2023	Longitudinal association of changes in parental correlates with screen time in Chinese preschoolers	Database	Wrong exposure
Wu et al., 2023	Physical activity, screen time and body composition in 13-year-old adolescents: The Generation R Study	Database	Wrong exposure
Wu et al., 2024	Parental autonomy granting, peer attachment and problematic internet use among chinese adolescents: The moderating effect of school climate	Database	Wrong exposure
Wu et al., 2024	The longitudinal relationship between loneliness and both social anxiety and mobile phone addiction among rural left-behind children: A cross-lagged panel analysis	Database	Wrong exposure
Xiao et al., 2019	The role of stressful life events and the Big Five personality traits in adolescent trajectories of problematic Internet use	Database	Wrong study design
Xiao et al., 2021	Cybervictimization, time spent online, and developmental trajectories of online privacy concerns among early adolescents	Citation Search	Wrong outcome
Xie et al., 2020	Relationships Between Television Viewing, Computer and Mobile Phone Usage and Sleep Quality in a Chinese Population: A Community-Based Cross-Sectional Study	Database	Wrong population
Xie et al., 2022	Associations Between Parental Employment and Children's Screen Time: A Longitudinal Study of China Health and Nutrition Survey.	Database	Duplicate
Xie et al., 2023	Associations between parental employment and children's screen time: A longitudinal study of China Health and Nutrition Survey	Database	Wrong outcome
Xiong et al., 2023	Associations between problematic internet use, life satisfaction, and deliberate self-harm among Chinese adolescents: A multi-centered longitudinal study	Database	Wrong exposure
Xiong et al., 2023	Associations between problematic internet use, life satisfaction, and deliberate self-harm among Chinese adolescents: A multi-centered longitudinal study.	Database	Duplicate
Xu et al., 2014	Associations of maternal influences with outdoor play and screen time of two-year-olds: Findings from the Healthy Beginnings Trial	Database	Wrong outcome
Xu et al., 2016	A 5-year longitudinal analysis of modifiable predictors for outdoor play and screen-time of 2- to 5-year-olds	Database	Wrong exposure
Xu et al., 2016	Associations of outdoor play and screen time with nocturnal sleep duration and pattern among young children	Database	Wrong outcome
Xu et al., 2019	Relationship between Physical Activity, Screen Time, and Sleep Quantity and Quality in US Adolescents Aged 16-19	Database	Wrong outcome
Xu et al., 2024	Adverse childhood experiences and excessive recreational screen time among adolescents in the united kingdom: A national longitudinal study	Database	No association
Xu et al., 2024	Adverse Childhood Experiences and Excessive Recreational Screen Time Among Adolescents in the United Kingdom: A National Longitudinal Study.	Database	No association
Yang et al., 2013	Electronic screen use and mental well-being of 10-12-year-old children	Database	Wrong study design

Yang et al., 2014	Prevalence and correlates of problematic internet experiences and computer-using time: a two-year longitudinal study in Korean school children	Database	Wrong population
Yang et al., 2018	Social media social comparison and identity distress at the college transition: A dual-path model	Database	Wrong population
Yang et al., 2019	Relationships between depression, health-related behaviors, and internet addiction in female junior college students	Database	Wrong population
Yang et al., 2021	Children's social communication skills and electronic screen exposure, perinatal, and other risk factors	Database	Wrong study design
Yang et al., 2024	Association of screen use trajectories from early childhood with cognitive development in late childhood: The EDEN mother-child cohort	Database	Wrong exposure
Yang et al., 2024	Associations of screen use with cognitive development in early childhood: The ELFE birth cohort	Database	Wrong exposure
Yang et al., 2024	Multidimensional predictors of adolescents' nonacademic digital media use in the United States: Insights from a bioecological perspective	Database	Wrong study design
Yayan et al., 2017	Examination of the Correlation Between Internet Addiction and Social Phobia in Adolescents	Database	Wrong population
Ybarra et al., 2004	Sex Differences in Youth-Reported Depressive Symptomatology and Unwanted Internet Sexual Solicitation	Database	Wrong study design
Ybarra et al., 2005	Depressive symptomatology, youth Internet use, and online interactions: A national survey	Database	Wrong study design
Ybarra et al., 2014	Cross-sectional associations between violent video and computer game playing and weapon carrying in a national cohort of children	Database	Wrong study design
Yee et al., 2010	The role of the social network in contraceptive decision-making among young, African American and Latina Women	Database	Wrong population
Yen et al., 2008	The multidimensional correlates associated with short nocturnal sleep duration and subjective insomnia among Taiwanese adolescents	Database	Wrong population
Yeon et al., 2016	Relationship between problematic internet use and posttraumatic stress disorder symptoms among students in a rural town near the Sewol ferry disaster in Korea	Database	Wrong publication type
Yi et al., 2012	Prevalence and risk factors of obesity among school-aged children in Xi'an, China	Database	Wrong outcome
Yin et al., 2023	Depression and Internet Gaming Disorder among Chinese Adolescents: A Longitudinal Moderated Mediation Model.	Database	Wrong exposure
Yoo et al., 2024	Psychosocial factors and changing patterns of prolonged online gaming in adolescents	Database	Wrong outcome
Yoshimoto et al., 2019	Overweight prevalence and lifestyle trends in children aged 5 years in Southern Vietnam: Estimates from 2012 to 2018	Database	Wrong exposure
Young et al., 2017	Romantic motivations for social media use, social comparison, and online aggression among adolescents	Database	Wrong study design
Yu et al., 2013	Internet addiction in Hong Kong adolescents: a three-year longitudinal study	Database	Wrong population
Yu et al., 2018	Testing Longitudinal Relationships between Internet Addiction and Well-Being in Hong Kong Adolescents: Cross-Lagged Analyses Based on three Waves of Data	Database	Wrong outcome
Yu et al., 2018	The Moderating Effect of Geographic Area on the Relationship Between Age, Gender, and Information and Communication Technology Literacy and Problematic Internet Use	Database	Wrong population
Yu et al., 2019	Social networking addiction among university students in Hong Kong	Database	Wrong population
Yu et al., 2023	Associations of screen use with physical activity and social capital amid the COVID-19 pandemic: A network analysis of youths in China	Database	Wrong exposure

Yu et al., 2023	The emerging techno-microsystem and its longitudinal influences on chinese young children"s behavior problems	Database	Wrong exposure
Yuan et al., 2024	The relationship between screen time and gross motor movement: A cross-sectional study of pre-school aged left-behind children in China	Database	Wrong study design
Zhang et al., 2013	The development of pathological internet use and its relationship with self-esteem among junior high school students: The moderating role of classmate relationship	Database	Wrong population
Zhang et al., 2014	A preliminary investigation on the relationship between virtues and pathological internet use among Chinese adolescents	Database	Wrong population
Zhang et al., 2015	Internet dependence in chinese high school students: relationship with sex, self-esteem, and social support	Database	Wrong outcome
Zhang et al., 2019	Digital media and depressive symptoms among Chinese adolescents: A cross-sectional study	Database	Wrong study design
Zhang et al., 2022	Demographic characteristics, family environment and psychosocial factors affecting internet addiction in Chinese adolescents	Database	Wrong population
Zhang et al., 2023	Longitudinal relationship between social media and e-cigarette use among adolescents: the roles of internalizing problems and academic performance.	Database	No association
Zhang et al., 2023	The prospective effect of problematic smartphone use and fear of missing out on sleep among Chinese adolescents	Citation Search	Wrong exposure
Zhang et al., 2024	Changes in home environment, lifestyles, and mental health among preschoolers who experienced lockdown during the first wave of COVID-19 in Shanghai	Database	Wrong exposure
Zhao et al., 2018	Excessive Screen Time and Psychosocial Well-Being: The Mediating Role of Body Mass Index, Sleep Duration, and Parent-Child Interaction	Database	Wrong outcome
Zhao et al., 2019	Training and transfer effects of prospective memory training in 13- to 15-year-old children	Database	Wrong outcome
Zhao et al., 2022	The longitudinal association between internet addiction and depressive and anxiety symptoms among Chinese adolescents before and during the COVID-19 pandemic.	Database	Wrong exposure
Zhao et al., 2024	The vicious cycle between loneliness and problematic smartphone use among adolescents: A random intercept cross-lagged panel model	Database	Wrong exposure
Zheng et al., 2014	Association between mobile phone use and inattention in 7102 Chinese adolescents: a population-based cross-sectional study	Database	Wrong outcome
Zhou et al., 2023	Longitudinal network relations between symptoms of problematic internet game use and internalizing and externalizing problems among Chinese early adolescents	Database	Wrong population
Zhou et al., 2023	Longitudinal network relations between symptoms of problematic internet game use and internalizing and externalizing problems among Chinese early adolescents.	Database	Duplicate
Zhou et al., 2024	Identifying the risk of depression in a large sample of adolescents: An artificial neural network based on random forest	Database	Wrong exposure
Zhu et al., 2019	Movement and mental health: Behavioral correlates of anxiety and depression among children of 6–17 years old in the US	Database	Wrong outcome
Zhu et al., 2020	Twenty-Four-Hour Movement Guidelines and Body Weight in Youth	Database	Wrong outcome
Zhu et al., 2023	Trajectories of screen time across adolescence and their associations with adulthood mental health and behavioral outcomes	Database	Wrong exposure
Zink et al., 2024	Examining the bidirectional associations between sleep duration, screen time, and internalizing symptoms in the ABCD study	Citation Search	Wrong exposure

Zink et al., 2024	Examining the bidirectional associations between sleep duration, screen time, and internalizing symptoms in the ABCD study	Database	Wrong exposure
Zink et al., 2024	Longitudinal associations of screen time, physical activity, and sleep duration with body mass index in U.S. youth	Database	Duplicate
Zou et al., 2019	Smartphone addiction may be associated with adolescent hypertension: a cross-sectional study among junior school students in China	Database	Wrong population
Јовић et al., 2018	Problematic Internet use, academic achievement and socioeconomic status	Database	Wrong study design

eTable 2b

Studies Excluded at the Data Extraction Stage (n=13)

Citation	Title	Data Source	Exclusion Reason
Battaglini et al., 2024	Communication modality matters: Coâ€• rumination via inâ€• person versus digital modalities has different prospective associations with depression and friendship quality	Citation Search	Data cannot be converted
Bonhert et al., 2023	Digital use and socioeconomic inequalities in adolescent wellâ€• being: Longitudinal evidence on socioemotional and educational outcomes	Citation Search	Data cannot be converted
Coyne et al., 2020	Does time spent using social media impact mental health?: An eight year longitudinal study	Database	Data cannot be converted
Eklund et al., 2017	Do adolescent gamers make friends offline Identity and friendship formation in school	Database	Data cannot be converted
Goodman et al., 2020	Association of Video Game Use With Body Mass Index and Other Energy-Balance Behaviors in Children	Database	Data cannot be converted
Kandola et al., 2022	Prospective relationships of adolescents' screen-based sedentary behaviour with depressive symptoms: the Millennium Cohort Study	Citation Search	Data cannot be converted
Konok et al., 2022	Longitudinal associations of children's hyperactivity/inattention, peer relationship problems and mobile device use	Citation Search	Data cannot be converted
Maksnemi et al., 2022	Intraindividual associations between active social media use, exhaustion, and bedtime vary according to age—A longitudinal study across adolescence	Citation Search	Data cannot be converted
McNeill et al., 2019	Longitudinal associations of electronic application use and media program viewing with cognitive and psychosocial development in preschoolers	Citation Search	Data cannot be converted
Metzler et al., 2017	The Long-Term Benefits of Positive Self-Presentation via Profile Pictures, Number of Friends and the Initiation of Relationships on Facebook for Adolescents' Self-Esteem and the Initiation of Offline Relationships	Database	Data cannot be converted
Riehm et al., 2019	Associations Between Time Spent Using Social Media and Internalizing and Externalizing Problems Among US Youth	Database	Data cannot be converted
Shoshani et al., 2024	The impact of social media use on psychiatric symptoms and well-being of children and adolescents in the post-covid-19 era: A four-year longitudinal study	Citation Search	Data cannot be converted
Swirsky et al., 2020	Social media engagement among early adolescents: Motivational and adjustment correlates	Citation Search	Data cannot be converted

eTable 3

Formula used to convert effect sizes to Pearson correlation

Converting log odds ratio to d	$d = \frac{\text{LogOddsRatio}}{\sqrt{3/\pi}}$ $V_d = V_{\text{LogOddsRatio}} \cdot \frac{3}{\pi^2}$
Converting d to r	$r = \frac{d}{\sqrt{d^2 + a}}$ <p>where a is a correction factor for cases where $n_1 \neq n_2$:</p> $a = \frac{(n_1 + n_2)^2}{n_1 n_2}$ $V_r = \frac{a^2 V_d}{(d^2 + a)^3}$

Borenstein, M., Hedges, V., Higgins, J., & Rothstein, H. (Eds.). (2009). Converting Among Effect Sizes. In *Introduction to meta-analysis*. John Wiley & Sons.

eTable 4

Full study characteristics

Author	Year	N	Cohort Name	Country	Child age	Age category	Percentage of girls	Year of first media exposure	Time lag (in years)	Representative Sample
Adachi & Willoughby	2013	1492	-	Canada	13.83	Early adolescence (12-15y)	51	2004	3; 1	Representative
Adachi & Willoughby	2015	1492	part of a larger cohort-sequential project examining youth lifestyle choices	Canada	13.83	Early adolescence (12-15y)	51	NA	1	Representative
Ajmal et al.	2024	371	Hokkaido Birth Cohort Study	Japan	12.7	Early adolescence (12-15y)	51	2020	1	No
Alonso & Romero	2019	624	-	Spain	14.35	Early adolescence (12-15y)	55	2015	1	No
Anderson et al.	2008	1050	-	Japan and USA	NA	Early adolescence (12-15y)	NA	NA	0.33; 0.29; 0.46	No
Arora et al.	2018	442	Midlands Adolescent Schools Sleep Education Study	England	12	Early adolescence (12-15y)	55	2011	3	Representative
Barlett et al.	2018	3079	-	Singapore	13.01	Early adolescence (12-15y)	50	2010	2; 3	Representative
Beeres et al.	2021	3501	Kunskap om Ungas Psykiska hälsa Och Långtidsstudie (KUPOL)	Sweden	14.5	Early adolescence (12-15y)	52	2014	1; 2	No
Boer et al.	2021	2228	Digital Youth Project	Netherlands	13.1	Early adolescence (12-15y)	43	2016	1; 2	No
Booker et al.	2018	4903	Understanding Society: the UK Household Longitudinal Study (UKHLS)	United Kingdom	NA	Early adolescence (12-15y)	100	2009	1	Representative
Brannigan et al.	2022	8568	Growing Up in Ireland (GUI)	Ireland	13	Early adolescence (12-15y)	NA	2011	4.5	Representative
Brunborg et al.	2022	3096	MyLife Study	Norway	14.3	Early adolescence (12-15y)	56	2017	1; 2; 4	No
Brunborg et al.	2014	1928	Young in Norway	Norway	15	Early adolescence (12-15y)	56	2010	2	Representative
Bucolo et al.	2011	648	New Hampshire Youth Survey	USA	13.42	Early adolescence (12-15y)	57	2007	1; 1.5	No
Bui	2024	101	-	Australia	5.25	Preschool (3-5y)	35	2019	1.5	No

Burić et al.	2021	763	-	Croatia	15.8	Early adolescence (12-15y)	100	2015	0.33; 0.83; 1.33; 1.83; 0.5; 1; 1.5	No
Camerini et al.	2018	843	MEDIATICINO study	Switzerland	10.4	School age (6-11 years)	51	2014	1	No
Cerniglia et al.	2021	356	C26A14EECL	Italy	4.2	Preschool (3-5y)	52	2014	2; 4	No
Chen et al.	2024b	1296	-	China	13.73	Early adolescence (12-15y)	51	2021	0.5; 1	No
Chen et al.	2024a	831	-	China	15.89	Early adolescence (12-15y)	61	2019	0.5	No
Cheng et al.	2020	1653	IDEFICS/I.Family study	Belgium, Estonia, Germany, Hungary, Italy, Spain, Sweden	6	School age (6-11 years)	46	2007	2; 6	No
Chu et al.	2023	11633	Adolescent Brain Cognitive Development (ABCD) Study	USA	9.9	School age (6-11 years)	49	2016	2	Representative
Cliff et al.	2018	3527	Growing Up in Australia: The Longitudinal Study of Australian Children (LSAC)	Australia	4	Early childhood (0-2y); Preschool (3-5y)	49	2006	2; 4	Representative
Colasante et al.	2024	154	Queen's University Developmental Database	Canada	13.47	Early adolescence (12-15y)	40	2020	0	No
Coyne et al.	2024	488	-	USA	13.82	Early adolescence (12-15y)	51	2009	1; 2; 3; 4; 5; 6; 7	Representative
Coyne et al.	2019	457	Flourishing Families Project (FFP)	USA	13.5	Early adolescence (12-15y)	53	2009	1	Representative
Coyne et al.	2021	459	Flourishing Families Project (FFP)	USA	13.82	Early adolescence (12-15y)	52	2009	10	No
Coyne et al.	2018	488	Flourishing Families Project (FFP)	USA	13.83	Early adolescence (12-15y)	49	2006	4; 2	No
De Coninck et al.	2023	3942	-	Estonia, Finland, Germany, Italy, Poland, Portugal	14.32	Early adolescence (12-15y)	50	2021	1	No
Dempsey et al.	2020	8568	Growing Up in Ireland (GUI)	Ireland	9	School age (6-11 years)	NA	2007	5	Representative
Dubuc et al.	2020	187	The Adolescent Student Academic Performance Longitudinal Study (ASAP)	Canada	13.1	Early adolescence (12-15y)	100	NA	4; 1	No
Dyer et al.	2024a	1125	-	Belgium	15.38	Early adolescence (12-15y)	48	2020	0.42; 0.83	No

Dyer et al.	2024b	488	Flourishing Families Project (FFP)	USA	13.33	Early adolescence (12-15y)	81	2009	7	Representative
Engberg et al.	2022	1599	Finnish Health in Teens Study (Fin_HIT)	Finland	11.23	School age (6-11 years)	52	2011	4.23	No
Falbe et al.	2014	4604	Growing Up Today Study (GUTS) II	USA	15.7	Early adolescence (12-15y)	100	2004	2	No
Falbe et al.	2013	4287	Growing Up Today Study (GUTS) II	USA	14.4	Early adolescence (12-15y); NA	100	2004	2	No
Ferguson	2024	6309	Growing Up in Ireland (GUI)	Ireland	13	School age (6-11 years); Early adolescence (12-15y)	51	2008	4; 10; 5	Representative
Ferguson & Wang	2019	3034	Singapore dataset	Singapore	11.21	Early adolescence (12-15y)	27	NA	2	No
Ferguson et al.	2014	237	-	USA	14.11	Early adolescence (12-15y)	100	2011	1; 0.5	No
Ferguson et al.	2021	3034	-	Singapore	11.21	Early adolescence (12-15y)	73	NA	3	No
Fitzpatrick & Boers	2022	1509	Quebec longitudinal Study of Child Development (QLSCD)	Canada	16	Early adolescence (12-15y)	52	2013	2	Representative
Fitzpatrick et al.	2023	897	Quebec longitudinal Study of Child Development (QLSCD)	Canada	13	Early adolescence (12-15y)	100	2011	2; 4	No
Fox et al.	2023	714	-	USA	15.98	Late adolescence (16+)	54	2015	1	Representative
Frison et al.	2020	1423	-	Belgium	14.76	Early adolescence (12-15y)	48	2014	0.5	Representative
Frison et al.	2016	1840	-	Belgium	14.76	Early adolescence (12-15y)	48	2014	0.5	Representative
Frison et al.	2017	671	-	Belgium	14.96	Early adolescence (12-15y)	61	2014	0.58	No
Frøyland et al.	2024	1726	MyLife Study	Norway	17	Early adolescence (12-15y)	100	2019	1; 2	No
Gashaj et al.	2021	97	-	Switzerland	6.47	School age (6-11 years)	47	NA	2	No
Gentile et al.	2012	3034	-	Singapore	11.2	School age (6-11 years)	NA	NA	1; 2	No
George et al.	2018	151	miLife Study	USA	13.1	Early adolescence (12-15y)	48	2010	0; 1.5	No

Gonzalez et al.	2023	657	-	Belgium	15.59	Late adolescence (16+)	68	2019	1	No
Grantved et al.	2014	435	European Youth Heart Study (EYHS)	Denmark	15.6	Early adolescence (12-15y)	55	1997	12	No
Gringas et al.	2023	257	-	Canada	13	Early adolescence (12-15y)	NA	2017	1	No
Gringas et al.	2024	257	-	Canada	13.7	Early adolescence (12-15y)	49	2017	1	No
Hawk et al.	2019	307	Digital Youth Project (DiYo)	The Netherlands	12.87	Early adolescence (12-15y)	52	2015	1	No
Heffer et al.	2019	303.3	-	Canada	12.21	Early adolescence (12-15y)	100	2017	1; 2	No
Hinkley et al.	2017	108	Healthy Activity Preschool and Primary Years (HAPPY) study	Australia	4.4	Preschool (3-5y)	47	2008	4; 3	Representative
Hopf et al.	2008	653	-	Germany	12	Early adolescence (12-15y)	42	1999	4	No
Houghton et al.	2018	1749	-	Australia	13.5	Early adolescence (12-15y)	47	2013	2	Representative
Hozman et al.	2024	5114	National Longitudinal Study of Adolescent to Adult Health (Add Health)	USA	NA	Early adolescence (12-15y)	54	1994	14	Representative
Huang et al.	2023	2049	-	China	14.39	Early adolescence (12-15y)	52	2020	0.75	No
Hull et al.	2014	1364	-	USA	13.8	Early adolescence (12-15y)	49	NA	0.67; 2.17; 4.17	Representative
Hygen et al.	2020	873	Trondheim Early Secure Study (TESS)	Norway	6	School age (6-11 years)	50	2009	2; 4; 6	No
Jensen et al.	2019	388	-	USA	12.36	Early adolescence (12-15y)	50	2015	1.17	No
Kellegan et al.	2020	45	Happiness and Health (H&H) Study	USA	16.5	Early adolescence (12-15y)	55	2015	2	No
Khouja et al.	2019	14665	Avon Longitudinal Study of Parents and Children (ALSPAC)	England	NA	0; Late adolescence (16+)	49	2007	3	Representative
Kim et al.	2024	1507	Panel Study on Korean Children (PSKC)	South Korea	9.39	School age (6-11 years)	49	2018	1	No
Kim et al.	2024	1484	Panel Study on Korean Children (PSKC)	South Korea	9.39	School age (6-11 years)	49	2018	1	Representative
Koenig et al.	2016	621	ado@internet.ch survey	Switzerland	14.27	Early adolescence (12-15y)	50	2012	2	Representative

Krossbakken et al.	2018	1277	large longitudinal survey of gambling, gaming, and drug behavior in adolescents taken from norwegian population register	Norway	17.5	Early adolescence (12-15y)	62	2012	1; 2	Representative
Lai et al.	2022	2543	-	China	11.54	School age (6-11 years)	49	2020	0.75	No
Leary et al.	2015	4226	Avon Longitudinal Study of Parents and Children (ALSPAC)	UK	4.75	Preschool (3-5y)	52	1991	10.25	Representative
Lebby et al.	2023	4190	National Longitudinal Study of Adolescent to Adult Health (Add Health)	USA	15	Early adolescence (12-15y)	57	1994	22	No
Lee et al.	2024	4627	Population Assessment of Tobacco and Health (PATH) Study	USA	13	Early adolescence (12-15y)	100	2014	1	Representative
Lee et al.	2022	5114	Population Assessment of Tobacco and Health (PATH) Study	USA	13	Early adolescence (12-15y)	100	2013	3.25; 2.17; 1.17; 0.33	Representative
Li et al.	2021	532	Applied Research Group for Kids (TARGetKids!)	Canada	5.9	Preschool (3-5y)	48	2020	1	No
Li et al.	2024	1419	Digital Youth Project (DiYo)	Netherlands	12.5	Early adolescence (12-15y)	46	2015	1; 2; 3	No
Liu et al.	2024	535	-	China	12.93	Early adolescence (12-15y)	43	NA	0.5; 1; 1.5	No
Liu et al.	2023	2228	-	China	10.9	School age (6-11 years)	49	2020	0.17	No
Livet et al.	2024	3801	Coventure Study	Canada	12.8	Early adolescence (12-15y)	49	2012	1	No
Lobel et al.	2019	184	Stone et al., 2013	Netherlands	10.23	School age (6-11 years)	51	NA	1	No
Lobel et al.	2017	194	Stone et al., 2013	Netherlands	9.22	School age (6-11 years)	50	NA	1	No
Ma et al.	2023	3694	China Family Panel Studies (CFPS)	China	14.5	Early adolescence (12-15y)	47	2018	2	Representative
Maheux et al.	2021	743	Character Lab Research Network (CLRN)	USA	15.1	Early adolescence (12-15y)	52	2019	0.33; 1; 1.25; 0.67; 1.92; 0.25	No
Manousaki et al.	2015	630	Quebec Adipose and Lifestyle Investigation in Youth (QUALITY) Cohort study	Canada	9.6	School age (6-11 years)	NA	NA	2	No
Martzog et al.	2022	141	-	Germany	4.83	Preschool (3-5y)	50	2022	0.83	No
Maurya et al.	2024	12035	Understanding the Lives of Adolescents and Youth Adults (UDAYA)	India	14.5	Early adolescence (12-15y)	63	2015	3	Representative

Meisel et al.	2022	435	-	USA	16.91	Early adolescence (12-15y)	60	NA	0.25	No
Mikuška & Vazsonyi	2018	9421	National Longitudinal Study of Adolescent to Adult Health (Add Health)	USA	15.94	Early adolescence (12-15y)	55	1996	5; 11; 6	Representative
Möller & Krahe	2009	143	-	Germany	13.34	Early adolescence (12-15y)	50	NA	2.5	Representative
Mougharbel et al.	2023	17174	COMPASS study	Canada	15.1	Early adolescence (12-15y)	100	2017	1	No
Murray et al.	2023	304	REAL Study	Canada	13.4	Early adolescence (12-15y)	64	2006	4.38; 2.83	No
Nagata et al.	2024b	9398	Adolescent Brain Cognitive Development (ABCD) Study	USA	12.02	Early adolescence (12-15y)	48	2018	1	Representative
Nagata et al.	2024a	7514	Adolescent Brain Cognitive Development (ABCD) Study	USA	10.93	School age (6-11 years)	50	2016	2	No
Nagata et al.	2023	9208	Adolescent Brain Cognitive Development (ABCD) Study	USA	9.94	School age (6-11 years)	49	2016	2	Representative
Nagata et al.	2021b	11025	Adolescent Brain Cognitive Development (ABCD) Study	USA	9.95	School age (6-11 years)	49	2016	1	Representative
Nagata et al.	2021a	11066	Adolescent Brain Cognitive Development (ABCD) Study	USA	9.9	Early adolescence (12-15y)	49	2016	1	Representative
Nagata et al.	2022	11066	Adolescent Brain Cognitive Development (ABCD) Study	USA	9.9	School age (6-11 years)	49	2016	3	Representative
Nesi et al.	2019a	716	-	USA	16.01	Early adolescence (12-15y)	54	2015	1	No
Nesi et al.	2019b	687	-	USA	14.26	Early adolescence (12-15y)	49	2019	1	No
Ng et al.	2021	2558	Understanding Society: the UK Household Longitudinal Study (UKHLS)	United Kingdom	19	Early adolescence (12-15y)	NA	2011	3	No
Nick et al.	2022	335	-	USA	14.27	Early adolescence (12-15y)	49	2018	1	No
Nogueira Avelar e Silva et al.	2016	2141	Rotterdam Youth Monitor (RYM)	Netherlands	12.2	Early adolescence (12-15y)	52	2008	2	No
Ohannessian et al.	2021	1205	Predictors of Anxiety and Depression during Adolescence research project (PANDA)	USA	12.75	Early adolescence (12-15y)	51	2016	1	No
Parkes et al.	2013	11014	UK Millennium Cohort Study	UK	7	Preschool (3-5y)	51	2005	2	Representative
Patte et al.	2018	26205	COMPASS Study	Canada	NA	Late adolescence (16+); Early	55	2012	4	Representative

						adolescence (12-15y)				
Plackett et al.	2023	3228	Understanding Society: the UK Household Longitudinal Study (UKHLS)	United Kingdom	12.5	Early adolescence (12-15y)	51	2009	2; 1	Representative
Poulain et al.	2019	814	LIFE Child Study	Germany	12.33	Early adolescence (12-15y)	58	2011	1.02	No
Poulain et al.	2018	850	LIFE Child study	Germany	13.01	Early adolescence (12-15y)	50	2011	1	No
Pouwels et al.	2021	383	-	Netherlands	14.02	NA	54	NA	0.27	Representative
Purba et al.	2024a	8987	UK Millenium Cohort Study	United Kingdom	14	Early adolescence (12-15y)	NA	2014	4	Representative
Purba et al.	2024b	8987	UK Millenium Cohort Study	United Kingdom	14	Early adolescence (12-15y)	55	2015	3	Representative
Puukko et al.	2020	2891	-	Finland	13.5	Early adolescence (12-15y)	57	2014	1; 2; 4; 5; 3	No
Ranker et al.	2024	8672	Population Assessment of Tobacco and Health (PATH) Study	USA	14.1	Early adolescence (12-15y)	49	2014	1	Representative
Rodman et al.	2024	26	-	USA	15.18	Early adolescence (12-15y)	42	2021	0.08	No
Sanders et al.	2019	3657	Growing Up in Australia: The Longitudinal Study of Australian Children (LSAC)	Australia	10	Early adolescence (12-15y)	49	2010	4	Representative
Schmitt	2024	8004	Adolescent Brain Cognitive Development (ABCD) Study	USA	9.98	School age (6-11 years)	51	2016	2; 3; 4; 1; 1.5; 0.5	No
Schwartz et al.	2019	374	-	USA	14.4	Early adolescence (12-15y)	56	2016	1	No
Sharif et al.	2010	6486	-	USA	12	Early adolescence (12-15y)	NA	2003	2	No
Shen et al.	2024	367	Study of Cognition, Adolescents and Mobile Phones (SCAMP)	United Kingdom	14.02	Early adolescence (12-15y)	54	2016	4	Representative
Steinsbekk et al.	2021	3456	Trondheim Early Secure Study (TESS)	Norway	10.51	School age (6-11 years)	52	2013	2	No
Steinsbekk et al.	2023	810	Trondheim Early Secure Study (TESS)	Norway	14	School age (6-11 years); Early adolescence (12-15y)	NA	2013	2; 4; 6	Representative
Straatmann et al.	2018	282	Adolescent Nutritional Assessment Longitudinal Study (ELANA)	Brasil	15	Early adolescence (12-15y)	100	2010	2	No

Strong et al.	2018	3795	Taiwan Education Panel Surveyy (TEPS)	Taiwan	NA	Early adolescence (12-15y)	51	2003	2	Representative
Sudan et al.	2016	54908	Danish National Birth Cohort (DNBC)	Denmark	7	School age (6-11 years)	NA	NA	4	Representative
Suggate et al.	2021	117	-	Germany	4.81	Preschool (3-5y)	47	2017	2	No
Suggate et al.	2022	109	-	Germany	4.81	Preschool (3-5y)	49	2017	3	No
Swing et al.	2010	1323	SWITCH obesity prevention project	USA	9.6	Preschool (3-5y)	53	NA	1.08	Representative
Teng et al.	2017	699	-	China	14.54	Early adolescence (12-15y)	51	2015	0.42	No
Teng et al.	2019	1340	-	China	14.86	Early adolescence (12-15y)	55	2016	0.5	No
Thom et al.	2018	126	-	USA	12.56	Early adolescence (12-15y)	47	2009	1	No
Thorisdottir et al.	2020	2211	LIFECOURSE study	Iceland	12	Early adolescence (12-15y)	50	2017	2	No
Tiraboschi et al.	2023	698	Quebec longitudinal Study of Child Development (QLSCD)	Canada	15	Early adolescence (12-15y)	100	2012	2	No
Toh et al.	2020	1628	-	Singapore	14.3	Early adolescence (12-15y)	51	2016	1	Representative
Twigg et al.	2020	4476	UK Household Longitudinal Study (UKHLS)	United Kingdom	13.5	Early adolescence (12-15y)	NA	2009	7	No
Valkenburg et al.	2017	852	-	The Netherlands	12.5	Early adolescence (12-15y)	51	2012	1	Representative
Valkenburg et al.	2009	812	-	Netherlands	13.47	Early adolescence (12-15y)	50	2006	0.5	Representative
Van den Bulck et al.	2007	174	Leuven Study on Media and Adolescent Health (SOMAH)	Belgium	15.3	Early adolescence (12-15y)	48	2004	1	No
van den Eijnden et al.	2008	660	-	Netherlands	13.37	Early adolescence (12-15y)	NA	2003	0.5	No
van Den Eijnden et al.	2021	2021	Digital Youth Project	Netherlands	13.86	Early adolescence (12-15y)	45	2017	1	No
Vanderschuur et al.	2019	1441	-	The Netherlands	12.61	Early adolescence (12-15y)	49	2014	0.33	No
Vannucci et al.	2019	1205	Pandaresearchproject.org	USA	12.73	Early adolescence (12-15y)	51	2016	0.5	Representative

Verheijen et al.	2018	208	Kandinsky Longitudinal Study (KLS)	Netherlands	14.07	Early adolescence (12-15y)	100	2014	1	No
Viner et al.	2019	3831	Our Futures	United Kingdom	14.5	Early adolescence (12-15y)	100	2013	2	Representative
Vossen et al.	2016	942	-	Netherlands	12.93	Early adolescence (12-15y)	50	2012	1	No
Wang et al.	2020	5219	Shandong Adolescent Behavior & Health Cohort (SABHC)	China	14.59	Early adolescence (12-15y)	50	2015	1	Representative
Winstone et al.	2022	1321	-	England	13.23	Early adolescence (12-15y)	59	2019	1	No
Wu et al.	2024	1962	-	China	14.59	Early adolescence (12-15y)	52	NA	0.5; 1	No
Xiao et al.	2024	354	-	Canada	13.65	Early adolescence (12-15y)	45	2014	1; 2	No
Zhou et al.	2023	10279	China Education Panel Survey	China	12.5	Early adolescence (12-15y)	NA	2013	1	Representative
Zink et al	2024	2622	Adolescent Brain Cognitive Development (ABCD) Study	USA	10	School age (6-11 years)	100	2017	1	Representative
Zink et al.	2020	2717	Happiness and Health (H&H) Study	USA	14.57	Early adolescence (12-15y)	56	2013	1	No
Zink et al.	2019	2525	Happiness and Health (H&H) study	USA	NA	Early adolescence (12-15y)	56	2013	1	No

eTable 5

Study full media and outcome domains

Author	Year	Exposure media	Exposure media measurement	Exposure informant	Outcome domain	Outcome subdomain	Outcome measurement	Outcome informant
Adachi & Willoughby	2013	Video games	Duration	Child	Cognitive	Attention and Executive Functioning; Academic achievement	Adapted from Wills et al. (1996); Self-Reported School Grades	Child only
Adachi & Willoughby	2015	Video games	Duration	Child	Physical health	Physical activity	Part of the larger study, no scale mentioned	Child only
Ajmal et al.	2024	Other; Video games	Derived from device	Parents	Social-emotional	Internalising and externalising; Prosocial behaviour	Strengths and Difficulties Questionnaire	Parent
Alonso & Romero	2019	Other	Frequency	Child	Social-emotional	Aggression; Peer problems; Positive development; Negative affect	European Bullying Intervention Project Questionnaire (EBIPQ) (Spanish version); European Cyberbullying Intervention Project Questionnaire (ECIPQ) (Spanish version); Positive and Negative Affect Schedule	Child only
Anderson et al.	2008	Video games	Duration	Child	Social-emotional	Aggression	Buss and Perry; Survey Specific	Child only; Multiple
Arora et al.	2018	Social media; Video games; Other	Duration	Child	Cognitive	Academic achievement	School records	School
Barlett et al.	2018	Social media; Other	Duration	Child	Social-emotional	Bullying composite	Positive Attitudes toward Cyberbullying Questionnaire; Ybarra (2017) Cyberbullying Questionnaire	Child only
Beeres et al.	2021	Social media	Duration	Child	Social-emotional	Internalising and externalising; Internalising behaviour; Externalising behaviour	Strengths and Difficulties Questionnaire	Child only
Boer et al.	2021	Social media	Duration	Child	Social-emotional	Depression; Positive development	Depressive Mood List; Student's Life Satisfaction Scale	Child only

Booker et al.	2018	Social media	Duration	Child	Social-emotional	Positive development; Internalising and externalising	Survey	Child only
Brannigan et al.	2022	Other	Duration	Child	Social-emotional	Externalising behaviour; Peer problems; Internalising behaviour; Internalising and externalising	Strengths and Difficulties Questionnaire	Parent
Brunborg et al.	2014	Video games	Duration	Child	Social-emotional; Cognitive; Physical health	Depression; Academic achievement; Substance use; Externalising behaviour; Aggression	Hopkins Symptom Checklist; School grades; NA; Study derived	Child only; NA
Brunborg et al.	2022	Social media	Duration	Child	Physical health	Substance use	AUDIT-C	Child only
Bucolo et al.	2011	Video games	Duration	Child	Social-emotional	Aggression	Delinquency Component of the National Youth Longitudinal Study; Physical aggression subscale of the Aggression Questionnaire	Child only
Bui	2024	Other	Duration	Parents	Social-emotional	Internalising and externalising; Externalising behaviour	Child Behaviour Checklist	Parent
Burić et al.	2021	Other	Frequency	Child	Social-emotional	Depression and anxiety; Self-perception	Patient Health Questionnaire for Depression and Anxiety (PHQ-4); Cenat et al. 2014	Child only
Camerini et al.	2018	Other	Other - Access	Child	Cognitive	Academic achievement	School grades	School
Cerniglia et al.	2021	Other	Presence/Absence	Parents	Cognitive; Social-emotional	Academic achievement; Dysregulation	Teacher's Academic Ratings; The Teacher Report Form; Child Behaviour Checklist	School
Chen et al.	2024b	Video games	Frequency	Child	Social-emotional	Externalising behaviour; Aggression	Brief Barratt Impulsiveness Scale (Chinese); Brief Aggression Questionnaire	Child only
Chen et al.	2024a	Video games; Social media; Other	Duration	Child	Physical health	Sleep quality; Sleep problems	Pittsburgh Sleep Quality Index (PSQI); Insomnia severity index; Epworth Sleepiness Scale	Child only
Cheng et al.	2020	Video games	Details not reported	Child	Physical health	Body composition	Biometric data	Biometric data
Chu et al.	2023	Social media; Video games; Other	Duration	Child	Social-emotional	Self-Injurious Thoughts and Behaviours	Kiddie Schedule for Affective Disorders and Schizophrenia	Parent

Cliff et al.	2018	Other; Video games	Duration	Parents	Social-emotional	Dysregulation	Study derived	Parent
Colasante et al.	2024	Social media	Presence/Absence	Child	Social-emotional	Negative affect	Study derived	Child only
Coyne et al.	2024	Video games	Frequency	NA	Social-emotional	Aggression; Problematic internet use	Weinberger 1979; Gentile 2009; Peer and Romantic Relations Inventory Self Report (PRRRI-S)	Child only
Coyne et al.	2019	Social media	Duration	Child	Social-emotional	Depression; Aggression; Externalising behaviour	Self-report	Child only
Coyne et al.	2021	Social media; Video games; Other	Details not reported	NA	Social-emotional	Self-Injurious Thoughts and Behaviours	Revised Suicidal Behavior Questionnaire (SBQ-R)	Child only
Coyne et al.	2018	Video games	Frequency	Child and parents	Social-emotional	Externalising behaviour; Prosocial behaviour; Dysregulation; Positive development	(Barber, Stolz, & Olsen, 2005); Inventory of Strengths (modified from Peterson & Seligman, 2004); 12-item self-regulation measure (revised from Novak & Clayton, 2001); 7-item self-report measure from Barber (2002) and based on the measure of Davis (1996); four items taken from the Portrait Values Questionnaire (Schwartz et al., 2001	Child only; Mother; Father
De Coninck et al.	2023	Other	Details not reported	Child	Social-emotional; Physical health	Depression; General health	NA	Child only
Dempsey et al.	2020	Other	Presence/Absence	Child	Social-emotional	Internalising and externalising; Self-perception	Strengths and Difficulties Questionnaire (SDQ); Piers Harris Self-Concept Scale	Parent; Child only
Dubuc et al.	2020	Video games; Social media	Duration	Child	Cognitive	Academic achievement; Working Memory; Attention and Executive Functioning	0; N-back task; End of year report card; computer based test	NA; Research staff; School
Dyer et al.	2024a	Social media	Duration	Child	Social-emotional	Positive development	Cheung & Lucas, 2014	Child only
Dyer et al.	2024b	Social media	Duration	Child	Social-emotional	Depression	Center for Epidemiologic Studies Depression Scale (CES-D)	Child only
Engberg et al.	2022	Other	Duration	Child	Physical health	Body composition; Sleep problems; Physical activity	Biometric data; Study derived; MET (hours/week) - 1x MET =Metabolic Rate while Sitting	Biometric data; Child only

Falbe et al.	2013	Video games	Duration	Child	Physical health	Body composition	Growing Up Today Study (GUTS) II; Biometric data	Child only; Biometric data
Falbe et al.	2014	Video games	Duration	Child	Physical health	Diet quality	Youth/Adolescent Questionnaire	Child only
Ferguson	2024	Other; Social media	Presence/Absence	Child	Social-emotional	Externalising behaviour; Peer problems; Dysregulation	Strength and Difficulties Questionnaire; Ten Item Personality Inventory (TIPI)	Parent; Child only
Ferguson & Wang	2019	Video games	Duration	Child	Social-emotional	Aggression; Prosocial behaviour; Positive development	(Linder et al. 2002; Morales and Crick 1998); Prosocial Orientation Questionnaire (Cheung et al. 1998); (Nadel et al. 1996); Barlett and Gentile 2012; Buss and Perry 1992; Berry et al. 2005	Child only
Ferguson et al.	2014	Social media	Frequency	Child	Social-emotional	Eating disorder and body image issues; Positive development; Anxiety	Body Esteem Scale for Adolescents and Adults (BESAA; Eating Attitudes Test (EAT-26); SLS; Self-report	Child only
Ferguson et al.	2021	Video games	Duration	Child	Social-emotional	Prosocial behaviour; Aggression; Bullying composite; Positive development	Prosocial Orientation Questionnaire's Helping and Cooperation Subscales; Study derived; Nadel et al. 1996; Barlett & Gentile 2012; Buss and Perry 1992; Berry et al 2005	Child only
Fitzpatrick & Boers	2022	Other; Video games	Duration	Child	Social-emotional	Prosocial behaviour	Social Behaviour Questionnaire; Social Behavior Questionnaire	Child only
Fitzpatrick et al.	2023	Other	Duration	Child	Social-emotional	Depression	Study derived	Child only
Fox et al.	2023	Other	Other - Pressure to stay in contact with friends	Child	Social-emotional; Physical health	Peer problems; Depression; General health	Network of Relationships Inventory; Short Mood and Feelings Questionnaire (SMFQ); General Health Perceptions subscale from the RAND 36-Item Short-Form Health Survey	Child only
Frøyland et al.	2024	Social media	Presence/Absence	Child	Social-emotional	Depression; Externalising behaviour	Patient Health Questionnaire-9; Young in Norway survey items	Child only

Frison et al.	2020	Social media	Duration	Child	Social-emotional	Dysregulation; Depression	Self-report	Child only
Frison et al.	2016	Social media	Duration	Child	Social-emotional	Positive development; Peer problems; Depression	Self-report	Child only
Frison et al.	2017	Social media	Duration	Child	Social-emotional	Depression	Center for Epidemiological Studies Depression Scale for Children (CES-DC)	Child only
Gashaj et al.	2021	Video games	Duration	Parents	Cognitive	Working Memory; Attention and Executive Functioning	AGTB5-12's Matrix Task; Colour span task; Flanker task; Modified version of Flanker task	Research staff
Gentile et al.	2012	Video games	Duration	Child	Social-emotional	Externalising behaviour	Barratt Impulsiveness Scale-11; Current ADHD Symptoms Scale Self-Report	Child only
George et al.	2018	Other	Duration	Child	Social-emotional	Anxiety; Depression; Externalising behaviour	Modified Multidimensional Anxiety Scale for Children; Modified Beck Depression Inventory; Kim-Cohen et al., 2005	Child only
Gonzalez et al.	2023	Social media	Frequency	Child	Social-emotional	Prosocial behaviour	Pro-environmental behaviour scale	Child only
Grantved et al.	2014	Other	Duration	Child	Physical health	Body composition; Metabolic syndrome	Biometric data	Biometric data
Gringas et al.	2023	Social media	Duration	Child	Social-emotional	Problematic internet use; Depression; Anxiety	Bergman Social Media Addiction Scale; Child Depression Inventory: Short Version (CDI); Revised Children's Manifest Anxiety Scale-Second Edition Short Form	Child only
Gringas et al.	2024	Social media	Duration	Child	Social-emotional	Problematic internet use; Depression; Anxiety	Bergman Social Media Addiction Scale; Child Depression Inventory: Short Version (CDI); Revised Children's Manifest Anxiety Scale-Second Edition Short Form	Child only
Hawk et al.	2019	Social media	Frequency	Child	Social-emotional	Peer problems; Problematic internet use; Depression	Self report - supervised questionnaire	Child only

Heffer et al.	2019	Video games; Social media	Duration	Child	Social-emotional	Depression	Epidemiologic Studies Depression Scale (CES-D) Scale for Children; Child	Child only
Hinkley et al.	2017	Other; Video games	Duration	Parents	Social-emotional	Positive development	EQi_YV overall score; The EQi-YV (short version)	Child only
Hopf et al.	2008	Video games	Frequency	Child	Social-emotional	Aggression; Externalising behaviour	Tillmann et al., 2000; Tillmann et al., 2001	Child only
Houghton et al.	2018	Other; Social media	Duration; Frequency	Child	Social-emotional	Depression	Children's Depression Inventory; Child	Child only
Hozman et al.	2024	Video games	Duration	NA	Physical health; Social-emotional	Metabolic syndrome; Aggression	Study derived	Biometric data; Child only
Huang et al.	2023	Other; Social media; Video games	Frequency	Child	Social-emotional	Dysregulation	CES-D, GAD-7, Somatic Symptom Scale-8	Child only
Hull et al.	2014	Video games	Frequency	Child	Physical health; Social-emotional	Substance use; Aggression; Externalising behaviour; Unsafe sex	Survey specific	Child only
Hygen et al.	2020	Video games	Duration	Parents; Child	Social-emotional; Physical health	Prosocial behaviour; Body composition	Social Skills Rating System (SSRS); Biometric data	School; Biometric data
Jensen et al.	2019	Other; Social media	Duration	Child	Social-emotional	Externalising behaviour; Depression; Anxiety	Study derived; Positive and Negative Affect Schedule for Children	Child only
Kelleghan et al.	2020	Social media; Other; Video games	Duration	Child	Physical health	Substance use	Study derived	Child only
Khouja et al.	2019	Other	Duration	Child	Social-emotional	Anxiety; Depression	Clinical Interview Schedule (CIS-R)	Child only
Kim et al.	2024	Other	Duration	Parents	Cognitive; Social- emotional	Attention and Executive Functioning; Positive development; Peer relationships	Executive Function Difficulty Screening Questionnaire; School Adjustment Inventory	Parent; School
Kim et al.	2024	Other	Duration	Parents	Cognitive	Attention and Executive Functioning	Executive Function Difficulty Screening Questionnaire	Parent
Koenig et al.	2016	Other	Duration	Child	Physical health	Body composition	Biometric data	Biometric data
Krossbakken et al.	2018	Video games	Frequency	Child	Social-emotional; Physical health	Internalising behaviour; Depression; Anxiety; Substance use; Aggression	Hospital Anxiety and Depression Scale (HADS); Roberts UCLA Loneliness	Child only

							Scale (RULS) (Roberts et al., 1993); Alcohol Use Disorder Identification Test-Consumption (AUDIT-C) (Bush et al., 1998); Short Form Buss-Perry Aggression Questionnaire (BPAQ-SF) (Diamond and Magaletta, 2006)	
Lai et al.	2022	Other	Frequency	Child	Social-emotional	Anxiety; Depression	Generalized Anxiety Disorder (GAD-7); Center for Epidemiologic Studies Depression (CESD-10)	Child only
Leary et al.	2015	Video games	Duration	Mother	Physical health	Body composition	Part of the larger study, no scale mentioned	Child only
Lebby et al.	2023	Video games	Duration	Child	Physical health	Metabolic syndrome; Body composition; Chronic disease	Biometric data; Study derived	Biometric data; Child only
Lee et al.	2024	Social media	Presence/Absence; Frequency	Child	Physical health; Social-emotional	Substance use; Internalising behaviour	Study derived; Global Appraisal of Individual Needs ^â Short Screener (GAIN-SS)	Child only
Lee et al.	2022	Social media	Frequency	Child	Social-emotional	Internalising behaviour	Global Appraisal of Individual Needs-Short Screener (GAIN-SS)	Child only
Li et al.	2024	Social media	Duration	Child	Social-emotional	Problematic internet use; Positive development	van den Eijnden et al., 2018; Students Life Satisfaction Scale	Child only
Li et al.	2021	Video games	Duration	Parents	Social-emotional	Depression and anxiety; Externalising behaviour	Strengths and Difficulties Questionnaire (SDQ)	Parent
Liu et al.	2024	Other	Other - Perception of online communication breadth	Child	Social-emotional	Self-perception	Self-concept clarity scale	Child only
Liu et al.	2023	Video games; Social media; Other	Frequency; Duration	Child and parents	Physical health	Body composition	Study derived	Child and parents
Livet et al.	2024	Social media; Video games	Duration	Child	Social-emotional	Self-perception; Eating disorder and body image issues	Rosenberg Self-Esteem Scale; Developmental and Well-being Assessment's ED section	Child only
Lobel et al.	2019	Video games	Presence/Absence	Child	Social-emotional	Externalising behaviour; Peer problems; Prosocial behaviour	Strengths and Difficulties Questionnaire (SDQ) Dutch version	Parent

Lobel et al.	2017	Video games	Duration	Child	Social-emotional	Internalising behaviour; Externalising behaviour; Peer problems; Prosocial behaviour; Internalising and externalising	Strengths and Difficulties Questionnaire (SDQ) Dutch version	Parent
Ma et al.	2023	Other	Frequency	Child	Social-emotional	Depression	Center for Epidemiological Studies Depression Scale for Children (CES-D20)	Child only
Möller & Krahé	2009	Video games	Duration	Child	Social-emotional	Aggression	Buss and Perry (1992) aggression questionnaire	Child only
Maheux et al.	2021	Social media	Duration	Child	Social-emotional	Positive development	Gratitude Questionnaire-Six Item Form	Child only
Manousaki et al.	2015	Video games	Duration	Child	Physical health	Metabolic syndrome	Biometric data	Biometric data
Martzog et al.	2022	Other	Duration	Parents	Motor	Fine motor	Movement-Assessment-Battery for Children (Movement ABC)	Child only
Maurya et al.	2024	Social media	Duration	Child	Social-emotional	Depression	Study derived	Child only
Meisel et al.	2022	Social media	Frequency	Child	Physical health	Substance use	Study derived	Child only
Mikuška & Vazsonyi	2018	Video games	Duration	Child	Social-emotional	Depression	Center for Epidemiologic Studies Depression Scale	Child only
Mougharbel et al.	2023	Video games; Other	Duration	Child	Social-emotional	Anxiety; Depression	Generalized anxiety disorder 7-item scale (GAD-7); Center for Epidemiologic Studies Depression Scale (Revised) 10 (CESD-R-10)	Child only
Murray et al.	2023	Video games; Other	Duration	Child	Social-emotional	Depression; Eating disorder and body image issues; Self-perception	Children's Depression Inventory; Dutch Eating Behaviour Questionnaire; Body Esteem Scale for Adolescents and Adults (BESAA-23)	Child only
Nagata et al.	2024b	Video games; Social media; Other	Frequency	Child	Physical health	Sleep problems	Sleep disturbance scale for children	Parent
Nagata et al.	2024a	Social media	Duration	Child	Physical health	Substance use	Timeline Follow-Back (TLFB) instrument	Child only
Nagata et al.	2023	Video games; Other; Social media	Duration	Child	Social-emotional	Anxiety	Kiddie Schedule for Affective Disorders and Schizophrenia (KSADS-5)	Parent

Nagata et al.	2021b	Video games; Other; Social media	Frequency; Duration	Child	Social-emotional	Eating disorder and body image issues	Kiddie Schedule for Affective Disorders and Schizophrenia (KSADS-5)	Parent
Nagata et al.	2021a	Video games	Duration	Child	Physical health	Body composition	Adolescent Brain Cognitive Development (ABCD) Study	Child only
Nagata et al.	2022	Social media; Other	Duration	Child	Physical health	Body composition	CDC Growth Curve definitions	Research staff
Nesi et al.	2019a	Social media	Duration	Child	Physical health	Substance use; Sexual experience	Youth Risk Behavior Surveillance System; Study derived	Child only
Nesi et al.	2019b	Social media	Frequency	Child	Social-emotional	Depression	Short Mood and Feelings Questionnaire (SMFQ)	Child only
Ng et al.	2021	Social media	Duration	Child	Physical health	Substance use	Study derived	Child only
Nick et al.	2022	Social media	Frequency	NA	Social-emotional	Depression	Self-assess	Child only
Nogueira Avelar e Silva et al.	2016	Other	Duration	Child	Physical health	Early sexual experience	Study derived	Child only
Ohannessian et al.	2021	Social media	Duration	Child	Social-emotional	Anxiety; Depression	Screen for Child Anxiety Related Disorders (SCARED); Center for Epidemiological Studies Depression Scale for Children (CES-DC)	Child only
Parkes et al.	2013	Video games	Duration	Mother	Social-emotional	Externalising behaviour	Strengths and Difficulties Questionnaire (SDQ)	Mother
Patte et al.	2018	Video games; Other	Duration	Child	Physical health	Sleep quality	Study derived; Survey specific , recommended hours based on (Tremblay et al., 2016) Student-level questionnaire for COMPASS (CQ)	Child only
Plackett et al.	2023	Social media	Duration	Child	Social-emotional	Internalising and externalising; Self- perception; Peer relationships	Strengths and Difficulties Questionnaire	Child only
Poulain et al.	2019	Other	Duration	Child	Social-emotional	Internalising and externalising Externalising behaviour; Peer problems; Positive development; Parent/family relationship; Peer relationships	Strengths and Difficulties Questionnaire; KIDSCREEN- 27	Child only

Poulain et al.	2018	Video games; Other	Duration	Child	Cognitive	Academic achievement	Data linkage; School Grades	School
Pouwels et al.	2021	Social media	Frequency	Child	Social-emotional	Peer relationships	Study derived	Child only
Purba et al.	2024a	Social media	Duration	Child	Physical health	Substance use	Study derived	Child only
Purba et al.	2024b	Social media	Duration	Child	Physical health	Substance use	Study derived	Child only
Puukko et al.	2020	Social media	Frequency	Child	Social-emotional	Depression	Depression Scale (DEPS) Finnish Version	Child only
Ranker et al.	2024	Social media	Frequency	Child	Physical health	Substance use	Study derived	Child only
Rodman et al.	2024	Other; Social media; Video games	Derived from device	Device	Social-emotional	Positive development; Negative affect	Positive and Negative Affect Scale	Child only
Sanders et al.	2019	Video games	Duration	Child and parents	Social-emotional; Physical health; Cognitive	Positive development; Prosocial behaviour; Peer problems; Externalising behaviour; Dysregulation; Body composition; General health; Academic achievement	Paediatric Quality of Life Inventory (PedsQL); Strengths and Difficulties Questionnaire (SDQ); SchoolAge Temperament Inventory (SATI); survey specific; validated measure; National Assessment Program - Literacy and Numeracy (NAPLAN)	Parent; Child only
Schmitt	2024	Social media	Duration	Child	Social-emotional	Prosocial behaviour; Internalising behaviour; Externalising behaviour	Prosocial Behaviour Scale - three items from the Strengths and Difficulties Questionnaire with the highest factor loadings; Brief Problem Monitor - brief, self-report version of the Child Behavior Checklist	Child only
Schwartz et al.	2019	Social media	Frequency	Child	Social-emotional; Cognitive	Aggression; Peer relationships; Academic achievement; Externalising behaviour	Study derived peer relationship measure; School-reported grades and rule-breaking behaviour	NA
Sharif et al.	2010	Video games	Duration	Child	Cognitive	Academic achievement	Study derived	Child and parents
Shen et al.	2024	Other; Social media; Video games	Duration	Child	Social-emotional	Depression; Anxiety	Patient Health Questionnaire (PHQ-8); Generalized Anxiety Disorder (GAD-7) scale	Child only
Steinsbekk et al.	2021	Social media	Duration	Child	Social-emotional	Self-perception	Revised Self-Perception Profile for Adolescents (SPPA-R)	Child only

Steinsbekl et al.	2023	Social media	Frequency	Child	Social-emotional	Depression; Anxiety	Child and Adolescent Psychiatric Assessment	Research staff
Straatmann et al.	2018	Video games	Duration	Child	Social-emotional	Peer problems	Child-Adolescent Teasing Scale (CATS)	Child only
Strong et al.	2018	Video games	Duration	Child	Social-emotional	Depression	Modified CES-D	Child only
Sudan et al.	2016	Other	Duration	Parents	Social-emotional	Internalising and externalising	Strengths and Difficulties Questionnaire (SDQ)	Parent
Suggate et al.	2021	Other	Duration	Parents	Motor	Sensorimotor; Fine motor	Study derived; Gori et al., 2008; Developmental Test of Visual Perception (DTVP-3); Movement-Assessment-Battery for Children (Movement ABC) German Version	Research staff
Suggate et al.	2022	Other	Duration	Parents	Cognitive	Visuospatial Imagery	Finke & Slayton 1988	Child only
Swing et al.	2010	Video games	Duration	Child and parents	Cognitive	Attention and Executive Functioning	Study derived	School
Teng et al.	2017	Video games	Frequency	Child	Social-emotional	Negative development and poor wellbeing	Moral Disengagement Scale	Child only
Teng et al.	2019	Video games	Frequency	Child	Social-emotional	Negative development and poor wellbeing; Aggression	Moral Disengagement Scale (Bandura et al., 1996); Brief Aggression Questionnaire (Webster et al., 2014) and study specific questions for peer reported aggression	Child only; Child and peers
Thom et al.	2018	Other	Duration	Child	Social-emotional	Depression; Anxiety	Beck Depression Inventory for Primary Care (BDI-PC); Beck Anxiety Inventory for Primary Care (BAI-PC)	Child only
Thorisdottir et al.	2020	Social media	Duration	Child	Social-emotional	Depression; Anxiety	Original Symptom Checklist; Multidimensional Anxiety Scale for Children (MASC) Icelandic Youth Version	Child only
Tiraboschi et al.	2023	Other	Duration	Child	Social-emotional	Anxiety	Mental Health and Social Inadaptation Assessment for Adolescents	Child only
Toh et al.	2020	Other; Video games	Duration	Child	Physical health	Musculoskeletal health; Visual health problems	Nordic Musculoskeletal Questionnaire; Study derived; modified Nordic	Child only

							Musculoskeletal Questionnaire (Kuorinka et al., 1987)	
Twigg et al.	2020	Social media	Duration	Child	Social-emotional	Positive development	Study derived	Child only
Valkenburg et al.	2017	Social media	Frequency	Child	Social-emotional	Externalising behaviour	Study derived	Child only
Valkenburg et al.	2009	Other	Duration	Child	Social-emotional	Peer relationships	Network of Relationship Inventory Revised	NA
Van den Bulck et al.	2007	Other	Frequency	Child	Physical health	Sleep problems	Study derived	Child only
van Den Eijnden et al.	2021	Social media	Frequency	Child	Physical health	Sleep quality	Groningen Sleep Quality Scale (GSKS), Depressive Mood List	NA
van den Eijnden et al.	2008	Other	Duration	Child	Social-emotional	Depression; Problematic internet use; Internalising behaviour	Depressive Mood List; Compulsive Internet Use Scale; Loneliness Scale	Child only
Vanderschuur et al.	2019	Social media	Frequency	Child	Social-emotional; Physical health	Internalising behaviour; Sleep problems	Study derived	Child only
Vannucci et al.	2019	Social media	Duration	Child	Social-emotional	Anxiety; Depression; Externalising behaviour	Study derived	Child only
Verheijen et al.	2018	Video games	Duration	Child	Social-emotional	Aggression	Survey specific	School
Viner et al.	2019	Social media	Frequency	Child	Social-emotional	Positive development; Anxiety	Study derived	Child only
Vossen et al.	2016	Social media	Duration	Child	Social-emotional	Prosocial behaviour	Adolescent Measure of Empathy and Sympathy (AMES)	Child only
Wang et al.	2020	Other	Duration	Child	Social-emotional	Self-Injurious Thoughts and Behaviours	Study derived	Child only
Winstone et al.	2022	Social media	Frequency	Child	Social-emotional	Self-Injurious Thoughts and Behaviours; Anxiety; Depression; Negative development and poor wellbeing	Child & Adolescent Self-harm in Europe Study; Hospital Anxiety and Depression Scale (HADS); Warwick and Edinburgh Mental Well-being Scale (WEMWBS)	Child only
Wu et al.	2024	Social media	Frequency	Child	Social-emotional	Self-Injurious Thoughts and Behaviours; Depression	Study derived; Depression Subscale of the short Depression Anxiety Stress Scale (DASS-D)	Child only; NA
Xiao et al.	2024	Other	Duration	Child	Social-emotional	Peer problems	Cybervictimisation Scale	Child only

Zhou et al.	2023	Other	Duration	Child	Social-emotional; Cognitive	Depression; Total cognitive	Study derived; Taiwan Education Panel Survey	Child only
Zink et al	2024	Other; Video games	Duration	Child	Physical health	Body composition	Biometric data	Biometric data
Zink et al.	2020	Video games	Duration	Child	Social-emotional	Negative affect; Positive development; Depression; Peer problems	Center for Epidemiologic Studies Depression Scale (CES-D)	Child only
Zink et al.	2019	Video games	Duration	Child	Social-emotional	Depression; Anxiety	Revised Children's Anxiety and Depression Scale (RCADS)	Child only

eTable 6

Table Study Quality Assessment Criteria ^a

Item	Title	Criteria
1	Clear research question	Was research question/objective clearly stated?
2	Exposure measured prior to outcome	For the analyses in this paper, were the exposure(s) of interest measured prior to the outcome(s) being measured?
3	Timeframe sufficient	Was the timeframe sufficient so that one could reasonably expect to see an association between exposure and outcome if it existed?
4	Power calculation	Was a sample size justification, power description, or variance and effect estimates provided?
5	Defined sample	Was study population clearly specified and defined? (who, where, when)
6	Participation rate >50%	Was participation rate of eligible persons at least 50%? (of the number of eligible people approached)
7	Selection criteria notes	Were all the subjects selected from the same/similar populations (including the same time period)? Were inclusion/exclusion criteria for being in the study prespecified and applied uniformly?
8	Attrition <20%	Was loss to follow-up after baseline 20% or less?
9	Valid exposure measure	Were the exposure measures (IVs) clearly defined, valid, reliable, and implemented consistently across all study participants?
10	Repeated exposure assessment	Was the exposure(s) assessed more than once over time?
11	Different levels of the exposure	For exposures that can vary in amount or level, did the study examine different levels of the exposure as related to the outcome (e.g., categories of exposure, or exposure measured as continuous variable)?
12	Valid outcome measure	Were the outcome measures (DV) clearly defined, valid, reliable, and implemented consistently across all study participants?
13	Blinding	Were the outcome assessors blinded to the exposure status of participants?
14	Confound variables	Were key potential confounding variables measured and adjusted statistically for their impact on the relationship between exposure(s) and outcome(s)?

Note. ^a National Heart Lung and Blood Institute: National Institutes of Health (2021). Quality Assessment Tool for Observational Cohort and Cross-Sectional Studies. Retrieved from <https://www.nhlbi.nih.gov/health-topics/study-quality-assessment-tools>

Purba et al.	2024a	Good	Y	Y	NR	Y	N	Y	Y	Y	Y	N	Y	Y	Y	Y
Shen et al.	2024	Fair	Y	Y	NR	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y
Maurya et al.	2024	Good	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y
NAgata et al.	2024a	Good	Y	Y	NR	Y	N	Y	Y	Y	Y	Y	Y	Y	NR	Y
Purba et al.	2024b	Good	Y	Y	NR	Y	N	Y	Y	Y	Y	N	Y	Y	N	Y
Gringas et al.	2024	Fair	Y	Y	NR	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y
Lebby et al.	2023	Good	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Liu et al.	2023	Good	Y	Y	NR	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y
Huang et al.	2023	Fair	Y	Y	Y	Y	N	Y	Y	Y	Y	N	Y	Y	Y	Y
Plackett et al.	2023	Good	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
NAgata et al.	2023	Good	Y	Y	NR	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Grantved et al.	2014	Fair	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y
Manousaki et al.	2015	Fair	Y	Y	NR	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y
Barlett et al.	2018	Poor	Y	N	NR	Y	N	Y	Y	Y	Y	N	Y	Y	N	Y
Teng et al.	2017	Good	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y
Frison et al.	2020	Fair	Y	Y	Y	Y	N	Y	Y	Y	N	Y	Y	N	N	Y
Vanderschuur et al.	2019	Poor	Y	Y	N	Y	N	Y	Y	Y	N	Y	N	N	N	N
Vannucci et al.	2019	Fair	Y	Y	Y	Y	N	Y	Y	Y	N	Y	Y	N	Y	Y
Coyne et al.	2019	Fair	Y	Y	Y	Y	N	Y	Y	Y	N	Y	Y	N	N	Y
Frison et al.	2016	Fair	Y	Y	Y	Y	N	Y	Y	Y	N	Y	Y	N	N	Y
Viner et al.	2019	Fair	Y	Y	Y	Y	N	Y	Y	Y	N	Y	N	N	N	Y
Houghton et al.	2018	Good	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	NA	Y	NR

Suggate et al.	2021	Poor	Y	N	NR	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y
Thorisdottir et al.	2020	Good	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Valkenburg et al.	2009	Fair	Y	Y	NR	NR	N	Y	Y	Y	Y	Y	Y	Y	N	Y
van Den Eijnden et al.	2021	Fair	Y	Y	NR	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y
Winstone et al.	2022	Fair	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y
Coyne et al.	2018	Good	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	NR	Y	Y
Dubuc et al.	2020	Fair	Y	Y	N	Y	N	Y	Y	N	N	Y	N	NR	Y	Y
Falbe et al.	2013	Good	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y
Ferguson & Wang	2019	Poor	Y	N	NR	Y	N	Y	Y	Y	Y	NR	Y	NR	NR	Y
Fitzpatrick & Boers	2022	Good	Y	Y	NR	Y	N	Y	Y	Y	Y	Y	Y	NA	NR	Y
Zhou et al.	2023	Good	Y	Y	NR	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y
Brannigan et al.	2022	Fair	Y	Y	NR	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y
Heffer et al.	2019	Fair	Y	Y	NR	Y	N	Y	Y	Y	Y	N	Y	NR	NR	Y
Hinkley et al.	2017	Good	Y	Y	Y	Y	N	Y	Y	Y	Y	N	Y	NR	N	Y
Hull et al.	2014	Poor	Y	N	N	Y	N	Y	Y	Y	N	N	N	NR	N	Y
Krossbakken et al.	2018	Fair	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	NR	N	N
Leary et al.	2015	Fair	Y	Y	N	Y	N	Y	N	Y	Y	N	Y	NR	NR	Y
Li et al.	2021	Poor	Y	Y	NR	N	N	Y	Y	N	Y	Y	N	NR	N	Y
MikuÅ¡ka & Vazsonyi	2018	Fair	Y	N	NR	Y	N	Y	Y	Y	N	Y	Y	NR	Y	Y
Mougharbel et al.	2023	Good	Y	Y	NR	Y	N	Y	Y	Y	Y	Y	Y	Y	Y	Y
MÅ¶ller & KrahÅ©	2009	Fair	Y	Y	Y	Y	N	Y	Y	Y	N	Y	N	NR	N	N
NAgata et al.	2021a	Good	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	NR	Y	Y

Parkes et al.	2013	Good	Y	Y	Y	Y	N	Y	Y	Y	Y	N	Y	N	Y	Y
Patte et al.	2018	Good	Y	Y	Y	Y	N	Y	Y	N	Y	Y	Y	NA	N	Y
Poulain et al.	2018	Good	Y	Y	Y	Y	N	Y	Y	Y	Y	N	Y	Y	N	Y
Sanders et al.	2019	Good	Y	Y	Y	Y	N	Y	Y	Y	N	Y	Y	NR	Y	Y
Straatmann et al.	2018	Fair	Y	Y	Y	N	N	Y	Y	Y	Y	Y	Y	NR	N	Y
Swing et al.	2010	Poor	Y	Y	N	Y	N	N	Y	N	N	N	N	NR	Y	Y
Teng et al.	2019	Good	Y	Y	NR	Y	Y	Y	Y	Y	Y	Y	Y	NR	Y	N
Tiraboschi et al.	2023	Fair	Y	Y	NR	Y	N	Y	Y	Y	Y	Y	Y	Y	N	Y
Toh et al.	2020	Good	Y	Y	NR	Y	Y	Y	Y	Y	Y	N	Y	NA	Y	Y
Verheijen et al.	2018	Poor	Y	Y	Y	Y	N	Y	Y	Y	Y	N	Y	NR	NR	N
Cerniglia et al.	2021	Fair	Y	Y	NR	Y	N	Y	Y	N	Y	N	Y	NR	NR	N
Martzog et al.	2022	Fair	Y	Y	NR	Y	N	Y	Y	Y	Y	Y	Y	NR	NR	Y
Zink et al.	2019	Good	Y	Y	Y	Y	N	Y	Y	N	Y	Y	Y	NA	Y	Y
Suggate et al.	2022	Fair	Y	N	NR	NR	Y	Y	Y	Y	Y	N	Y	NR	N	Y
van den Eijnden et al.	2008	Good	Y	Y	NR	Y	N	Y	Y	Y	Y	Y	Y	NA	Y	N
Khouja et al.	2019	Good	Y	Y	Y	Y	N	Y	Y	Y	Y	N	Y	NA	N	Y
Thom et al.	2018	Good	Y	Y	NR	Y	N	Y	Y	Y	Y	N	Y	NA	Y	Y
Nogueira Avelar e Silva et al.	2016	Fair	Y	Y	Y	Y	N	Y	Y	N	Y	N	Y	NA	N	Y
Dempsey et al.	2020	Fair	Y	N	NR	NR	N	Y	Y	Y	Y	Y	Y	NA	Y	Y
Vossen et al.	2016	Good	Y	Y	NR	Y	N	Y	Y	Y	Y	Y	Y	NA	Y	N
Wang et al.	2020	Good	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	NA	Y	Y
NAgata et al.	2022	Good	Y	Y	NR	Y	N	Y	Y	Y	Y	N	Y	NR	Y	Y

Strong et al.	2018	Good	Y	Y	NR	Y	N	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y
Arora et al.	2018	Good	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	Y	NA	Y	Y
Falbe et al.	2014	Good	Y	Y	N	Y	N	Y	Y	Y	Y	N	Y	NA	N	Y	

eTable 8

Associations between the other media type, social-emotional, physical and cognitive domains

	No. of studies (No. of effect sizes)	r	95% CI	p-value	I ² %
Social-emotional					
Anxiety	10 (47)	0.05	0.00 to 0.10	0.053	94.2
Depression	15 (53)	0.12	0.02 to 0.22	0.021*	99.5
Eating disorder and body image issues	2 (4)	0.13	-0.41 to 0.61	0.207	73.9
Externalising behavior	6 (15)	-0.03	-0.33 to 0.29	0.848	99.7
Internalising behavior	2 (5)	-0.17	-0.96 to 0.92	0.436	98.9
Internalising and externalizing behavior	6 (11)	0.05	-0.01 to 0.11	0.102	96.3
Self-Injurious thoughts and behaviors	3 (26)	0.08	-0.05 to 0.20	0.113	98.3
Dysregulation	4 (12)	0.18	-0.28 to 0.58	0.305	98
Negative affect	2 (9)	0.06	-0.13 to 0.24	0.162	0
Prosocial behavior	2 (7)	-0.17	-0.97 to 0.95	0.480	96.5
Peer problems	6 (11)	0	-0.29 to 0.29	0.983	99.6
Peer relationships	3 (6)	0.03	-0.09 to 0.15	0.433	80.6
Positive development	5 (27)	-0.05	-0.15 to 0.05	0.228	75.5
Self-perception	4 (19)	-0.11	-0.28 to 0.05	0.119	87.1
Physical					
Sleep problems	4 (19)	0.1	-0.09 to 0.29	0.195	94.3
Sleep quality	2 (6)	0	0.00 to 0.01	0.154	0
Substance use	-	-	-	-	-
Body composition	6 (10)	-0.01	-0.50 to 0.48	0.974	99.8
Metabolic syndrome	-	-	-	-	-
General health	2 (4)	-0.04	-0.08 to -0.01	0.043*	34.4
Fine motor	2 (2)	0.08	-0.94 to 0.96	0.658	80.1
Cognitive					
Academic achievement	4 (12)	-0.17	-0.44 to 0.13	0.165	94.6

eTable 9

Moderating effect of age by media type and developmental outcome

Media type	Outcome	k	Clusters	Moderator test	Age group	β	SE	95% CI	p value
Social media	Depression	81	24	QM(1, 6.42) = 13.57, p=0.009	Early adolescent (12–15 y)	0.09	0.02	0.04–0.15	0.007
					School age (6–11 y)	–0.09	0.02	–0.14– –0.03	0.009
Social media	Externalising	39	9	QM(1, 4.42) = 2.75, p=0.166	Early adolescent (12–15 y)	0.16	0.03	0.07–0.25	0.007
					School age (6–11 y)	–0.06	0.03	–0.14–0.03	0.166
Social media	Internalising	27	5	QM(1, 1.73) = 14.20, p=0.079	Early adolescent (12–15 y)	0.13	0.01	0.05–0.20	0.019
					School age (6–11 y)	–0.05	0.01	–0.12–0.02	0.079
Social media	Self-perception	4	3	QM(1, 1.00) = 0.15, p=0.764	Early adolescent (12–15 y)	–0.15	0.05	–0.79–0.50	0.214
					School age (6–11 y)	0.02	0.05	–0.63–0.67	0.764
Video games	Externalising	28	11	QM(2, 1.79) = 3.60, p=0.236	Early adolescent (12–15 y)	0.07	0.07	–0.20–0.33	0.418
					Pre-school (3–5 y)	0.33	0.11	–0.02–0.69	0.056
					School age (6–11 y)	0.07	0.07	–0.17–0.31	0.379

Notes. **QM** = Omnibus test of moderators, **QM_p** = corresponding p-value for the omnibus test of moderators. Age groups without sufficient data (≥ 2 studies contributed effect sizes for that age group within the specific media–outcome combination), or linked to statistically non-significant overall effects, were not modelled. Please take caution interpreting results with QMdf2 less than <4.

eTable 10

Moderating effect of exposure informant by media type and developmental outcome

Media type	Outcome	k	Clusters	Moderator test	Exposure informant	β	SE	95% CI	p value
Social media	Positive development	30	10	QM(1, 4.96) = 12.43, p=0.017	Child only	-0.07	0.02	-0.13– -0.01	0.029
					Device	0.08	0.02	0.02–0.14	0.017
Video games	Academic achievement	14	7	QM(1, 2.79) = 0.03, p=0.88	Child only	0.03	0.05	-0.13–0.18	0.598
					Child and parents	-0.01	0.05	-0.16–0.15	0.880

Notes. **QM** = Omnibus test of moderators, **QMp** = corresponding p-value for the omnibus test of moderators. Only those that had enough studies to run the analysis were presented. Please take caution interpreting results with QMdf2 less than <4.

eTable 11

Moderating effect of outcome informant by media type and developmental outcome

Media type	Outcome	k	Clusters	Moderator test	Outcome informant	β	SE	95% CI	p value
Social media	Depression	78	23	QM(1, 5.34) = 15.22, p=0.01	Child and parents	0.09	0.03	0.03–0.16	0.014
					Research staff	–0.10	0.03	–0.17– –0.04	0.010
Social media	Externalising	27	8	QM(1, 1.88) = 7.04, p=0.125	Child and parents	0.14	0.04	–0.04–0.31	0.076
					Parent	–0.10	0.04	–0.27–0.07	0.125
Video games	Academic achievement	12	6	QM(2, 0.91) = 4.93, p=0.325	Child and parents	0.10	NA	NA	NA
					Child only	–0.11	0.04	–0.32–0.10	0.136
					School	–0.11	0.03	–0.46–0.25	0.168

Notes. **QM** = Omnibus test of moderators, **QM_p** = corresponding p-value for the omnibus test of moderators. Only those that had enough studies to run the analysis were presented. Please take caution interpreting results with QM_{df2} less than <4.

eTable 12

Moderating effect of time interval between exposure and outcome by media type and developmental outcome

Media type	Outcome	k	Clusters	Moderator test	Timelag	β	SE	95% CI	p value
Social media	Depression	81	24	QM(1, 5.2) = 2.84, p=0.151	Intercept	0.12	0.03	0.06–0.18	0.001
					Time lag (years)	–0.02	0.01	–0.04–0.01	0.151
Social media	Externalising	39	9	QM(1, 1.69) = 18.35, p=0.067	Intercept	0.18	0.03	0.08–0.28	0.010
					Time lag (years)	–0.03	0.01	–0.06–0.01	0.067
Social media	Internalising	27	5	QM(1, 1.45) = 0.00, p=0.976	Intercept	0.10	0.05	–0.07–0.27	0.139
					Time lag (years)	0.00	0.04	–0.24–0.24	0.976
Social media	Problematic internet use	12	4	QM(1, 1.47) = 0.00, p=1.000	Intercept	0.23	0.03	0.05–0.42	0.034
					Time lag (years)	0.00	0.01	–0.07–0.07	1.000
Social media	Positive development	30	10	QM(1, 1.52) = 0.06, p=0.832	Intercept	–0.06	0.03	–0.14–0.02	0.106
					Time lag (years)	0.00	0.01	–0.08–0.07	0.832
Social media	Self-perception	4	3	QM(1, 1.00) = 0.15, p=0.764	Intercept	–0.17	0.10	–1.46–1.13	0.351
					Time lag (years)	0.02	0.05	–0.63–0.67	0.764
Social media	Substance use	31	10	QM(1, 3.62) = 0.03, p=0.882	Intercept	0.18	0.05	0.04–0.32	0.026
					Time lag (years)	0.00	0.02	–0.05–0.04	0.882
Video games	Academic achievement	14	7	QM(1, 1.86) = 0.35, p=0.62	Intercept	0.05	0.08	–0.31–0.41	0.557
					Time lag (years)	–0.01	0.02	–0.10–0.08	0.620
Video games	Aggression	42	14	QM(1, 1.41) = 4.42, p=0.221	Intercept	0.13	0.03	0.06–0.21	0.004
					Time lag (years)	–0.01	0.01	–0.04–0.02	0.221
Video games	Attention & executive functioning	16	3	QM(1, 1.00) = 59.93, p=0.082	Intercept	0.00	0.01	–0.17–0.18	0.809
					Time lag (years)	0.09	0.01	–0.06–0.23	0.082
Video games	Externalising	28	11	QM(1, 2.61) = 0.44, p=0.561	Intercept	0.32	0.19	–0.27–0.91	0.186
					Time lag (years)	–0.05	0.08	–0.31–0.21	0.561

Media type	Outcome	k	Clusters	Moderator test	Timelag	β	SE	95% CI	p value
Other media	Depression	53	15	QM(1, 2.22) = 0.07, p=0.819	Intercept	0.10	0.07	-0.21-0.41	0.287
					Time lag (years)	-0.01	0.05	-0.22-0.20	0.819

Notes. **QM** = Omnibus test of moderators, **QMp** = corresponding p-value for the omnibus test of moderators. Only those that had enough studies to run the analysis were presented. Please take caution interpreting results with QMdf2 less than <4.

eTable 13

Moderating effect of year of digital media exposure by media type and developmental outcome

Media type	Outcome	k	Clusters	Moderator test	Exposure year	β	SE	95% CI	p value
Social media	Depression	78	23	QM(1, 1.07) = 2.08, p=0.374	Pre-2012	0.12	0.01	-0.02–0.26	0.059
					2012+	-0.04	0.03	-0.32–0.25	0.374
Social media	Externalising	39	9	QM(1, 2.46) = 1.07, p=0.392	Pre-2012	0.15	0.00	NA	NA
					2012+	-0.03	0.03	-0.12–0.07	0.392
Social media	Positive development	29	10	QM(1, 1.88) = 8.72, p=0.106	Pre-2012	-0.12	0.01	-0.23– -0.01	0.046
					2012+	0.07	0.02	-0.04–0.18	0.106
Social media	Self Perception	4	3	QM(1, 1.00) = 3.43, p=0.315	Pre-2012	-0.09	0.00	NA	NA
					2012+	-0.06	0.03	-0.46–0.35	0.315
Social media	Substance use	27	9	QM(1, 2.25) = 18.47, p=0.04	Pre-2012	0.08	0.02	-0.11–0.27	0.120
					2012+	0.10	0.02	0.01–0.19	0.040
Video games	Academic achievement	26	9	QM(1, 4.8) = 0.37, p=0.569	Pre-2012	0.10	0.06	-0.09–0.28	0.192
					2012+	0.05	0.08	-0.16–0.25	0.569
Video games	Externalising behavior	18	7	QM(1, 1.26) = 0.27, p=0.681	Pre-2012	0.26	0.17	-0.63–1.14	0.294
					2012+	-0.10	0.18	-1.55–1.36	0.681

Notes. **QM** = Omnibus test of moderators, **QMp** = corresponding p-value for the omnibus test of moderators. Only those that had enough studies to run the analysis were presented. Please take caution interpreting results with QMdf2 less than <4.

eTable 14

Moderating effect of study quality by media type and developmental outcome

Media type	Outcome	k	Clusters	Moderator test	RoB Level	β	SE	95% CI	p value
Other Media	Depression	53	15	QM(1, 2.16) = 0.02, p = 0.896	Fair	0.07	0.03	-0.05–0.19	0.132
					Good	0.01	0.04	-0.16–0.17	0.896
Social Media	Depression	81	24	QM(2, 3.45) = 2.35, p = 0.227	Fair	0.11	0.03	0.03–0.18	0.011
					Good	-0.01	0.05	-0.12–0.10	0.823
					Poor	-0.07	0.03	-0.16–0.03	0.122
Social Media	Externalizing behavior	39	9	QM(2, 1.73) = 2.35, p = 0.321	Fair	0.09	0.03	-0.02–0.20	0.073
					Good	0.05	0.06	-0.12–0.21	0.478
					Poor	0.08	0.03	-0.03–0.19	0.091
Social Media	Internalizing behavior	27	5	QM(1, 2.05) = 112.28, p = 0.008	Fair	0.10	0.02	0.02–0.18	0.035
					Poor	0.21	0.02	0.12–0.29	0.008
Social Media	Problematic Internet Use	12	4	QM(1, 1.98) = 0.74, p = 0.482	Fair	0.21	0.04	0.03–0.38	0.037
					Good	0.04	0.04	-0.14–0.21	0.482
Social Media	Positive development	30	10	QM(1, 4.03) = 0.69, p = 0.452	Fair	-0.07	0.03	-0.14–0.01	0.073
					Good	-0.02	0.03	-0.10–0.05	0.452
Social Media	Substance use	31	10	QM(2, 1.22) = 12.86, p = 0.151	Fair	0.09	0.03	-0.23–0.40	0.188
					Good	0.09	0.03	-0.20–0.39	0.183
					Poor	-0.02	0.03	-0.34–0.29	0.523
Video Games	Academic achievement	14	7	QM(1, 1.93) = 1.75, p = 0.321	Fair	-0.06	0.07	-0.60–0.49	0.540
					Good	0.11	0.08	-0.25–0.46	0.321
Video Games	Attention and executive functioning	16	3	QM(1, 1.00) = 0.72, p = 0.552	Fair	0.09	0.00	0.09–0.09	0.000
					Poor	0.04	0.04	-0.53–0.60	0.552
Video Games	Externalizing behavior	28	11	QM(2, 2.37) = 0.24, p = 0.807	Fair	0.13	0.03	-0.16–0.42	0.117
					Good	0.14	0.17	-0.54–0.81	0.505

Media type	Outcome	k Clusters	Moderator test	RoB Level	β	SE	95% CI	p value
				Poor	0.03	0.11	-0.36-0.41	0.834

Notes. **QM** = Omnibus test of moderators, **QMp** = corresponding p-value for the omnibus test of moderators. Only those that had enough studies to run the analysis were presented. Please take caution interpreting results with QMdf2 less than <4.

eTable 15

Moderating effect of different time lag duration by media type and developmental outcome

Media type	Outcome	k	Clusters	Moderator test	Moderator Level	β	SE	95% CI	p value
Other	Academic achievement	12	4	QM(2, 0.5) = 0.43, p = 0.779	Short (Up to 1y)	-0.11	0.12	-1.66-1.44	0.526
					Medium (1-3y)	-0.24	0.18	-2.53-2.06	0.415
Other	Anxiety	43	8	QM(2, 3.16) = 5.13, p = 0.102	Short (Up to 1y)	0.04	0.06	-0.15-0.23	0.539
					Medium (1-3y)	0.03	0.01	0.-0.07	0.041
Other	Body composition	10	6	QM(3, 0) = 0., p = 1.000	Short (Up to 1y)	-0.47	0.49	-6.7-5.76	0.513
					Medium (1-3y)	0.12	0.10	-1.15-1.39	0.448
					Long (>3y)	0.34	0.24	-2.67-3.36	0.386
Other	Depression	53	15	QM(3, 3.23) = 4.86, p = 0.104	Short (Up to 1y)	0.05	0.01	0.02-0.09	0.007
					Medium (1-3y)	0.19	0.13	-0.17-0.55	0.215
					Long (>3y)	0.20	0.07	-0.1-0.5	0.104
Other	Dysregulation	6	3	QM(2, 0.56) = 0.34, p = 0.801	Medium (1-3y)	0.22	0.21	-0.68-1.11	0.409
					Long (>3y)	0.25	0.23	-0.72-1.22	0.380
					Medium (1-3y)	0.10	0.09	-0.22-0.43	0.332
Other	Externalising behaviour	15	6	QM(2, 1.09) = 5.23, p = 0.276	Long (>3y)	-0.40	0.09	-1.6-0.79	0.145
					Short (Up to 1y)	0.14	0.11	-0.32-0.6	0.336
Other	Peer problems	11	6	QM(3, 0.27) = 0.15, p = 0.922	Medium (1-3y)	0.13	0.08	-0.68-0.93	0.348
					Long (>3y)	-0.28	0.23	-3.17-2.62	0.439
					Short (Up to 1y)	-0.14	0.09	-0.53-0.25	0.256
Other	Self-perception	18	3	QM(2, 0.51) = 1.87, p = 0.582	Medium (1-3y)	-0.15	0.05	-0.38-0.08	0.109
					Short (Up to 1y)	0.11	0.05	-0.03-0.25	0.106
Social media	Anxiety	51	12	QM(3, 1.61) = 2.71, p = 0.319	Medium (1-3y)	0.02	0.01	-0.01-0.05	0.113
					Long (>3y)	-0.02	0.01	-0.06-0.02	0.203
					Short (Up to 1y)	0.12	0.02	0.07-0.16	0.000
Social media	Depression	81	24	QM(3, 4.75) = 8.78, p = 0.022	Medium (1-3y)	0.04	0.02	-0.01-0.09	0.092
					Long (>3y)	0.03	0.03	-0.1-0.16	0.406
					Short (Up to 1y)	0.15	0.02	0.11-0.2	0.000
Social media	Externalising behaviour	39	9	QM(3, 1.03) = 16.24, p = 0.173	Medium (1-3y)	0.13	0.03	0.03-0.22	0.021

Social media	Internalising behaviour	27	5	QM(3, 0.) = 0., p = NA	Long (>3y)	0.07	0.03	-0.25-0.38	0.240
					Short (Up to 1y)	0.12	0.05	-0.03-0.27	0.091
					Medium (1-3y)	0.16	0.06	-0.03-0.35	0.072
					Long (>3y)	0.21	0.09	-0.11-0.52	0.116
Social media	Positive development	29	9	QM(2, 3.32) = 2.71, p = 0.201	Short (Up to 1y)	-0.05	0.02	-0.11-0.	0.060
					Medium (1-3y)	-0.06	0.02	-0.13-0.01	0.088
Social media	Substance use	31	10	QM(3, 1.11) = 258.25, p = 0.034	Short (Up to 1y)	0.15	0.03	0.06-0.24	0.013
					Medium (1-3y)	0.10	0.03	0.01-0.2	0.040
					Long (>3y)	0.18	0.01	0.09-0.28	0.024
Video games	Academic achievement	9	6	QM(2, 1.25) = 0.17, p = 0.863	Medium (1-3y)	0.00	0.05	-0.16-0.15	0.965
					Long (>3y)	-0.12	0.16	-2.16-1.91	0.582
Video games	Aggression	42	14	QM(3, 2.44) = 7.48, p = 0.091	Short (Up to 1y)	0.14	0.04	0.05-0.23	0.006
					Medium (1-3y)	0.21	0.04	0.13-0.3	0.000
					Long (>3y)	0.11	0.04	-0.01-0.23	0.061
Video games	Anxiety	12	4	QM(2, 0.82) = 6.77, p = 0.31	Short (Up to 1y)	0.01	0.06	-0.21-0.22	0.912
					Medium (1-3y)	0.04	0.03	-0.21-0.3	0.368
Video games	Body composition	24	9	QM(3, 1.31) = 0.26, p = 0.856	Short (Up to 1y)	-0.36	0.37	-1.94-1.22	0.433
					Medium (1-3y)	-0.04	0.05	-0.18-0.1	0.461
					Long (>3y)	0.06	0.07	-0.12-0.23	0.448
Video games	Depression	18	10	QM(3, 2.49) = 0.79, p = 0.584	Short (Up to 1y)	0.03	0.04	-0.09-0.15	0.467
					Medium (1-3y)	0.12	0.14	-0.5-0.73	0.490
					Long (>3y)	0.15	0.09	-0.23-0.52	0.231
Video games	Dysregulation	7	3	QM(2, 0.52) = 0.55, p = 0.744	Medium (1-3y)	-0.07	0.07	-0.37-0.24	0.420
						-0.03	0.05	-0.26-0.2	0.621
Video games	Externalising behaviour	28	11	QM(3, 2.08) = 2.49, p = 0.293	Short (Up to 1y)	0.15	0.05	0.04-0.27	0.021
						0.18	0.07	-0.07-0.42	0.102
						0.17	0.09	-0.13-0.47	0.169

Video games	Positive development	9	6	QM(2, 1.24) = 0.43, p = 0.723	Short (Up to 1y)	-0.03 -0.04	0.03 0.04	-0.45-0.4 -0.18-0.1	0.554 0.431
Video games	Prosocial behaviour	22	9	QM(3, 1.6) = 1.15, p = 0.521	Short (Up to 1y)	-0.01 -0.19 -0.14	0.04 0.07 0.06	-0.19-0.16 -0.38-0. -0.32-0.03	0.791 0.047 0.080
Video games	Substance use	11	4	QM(2, 0.58) = 24.55, p = 0.276	Short (Up to 1y)	0.08 0.04	0.01 0.05	-0.09-0.26 -0.16-0.23	0.104 0.555

Notes. **QM** = Omnibus test of moderators, **QMp** = corresponding p-value for the omnibus test of moderators. Only those that had enough studies to run the analysis were presented. Please take caution interpreting results with QMdf2 less than <4.

eTable 16

Sensitivity analyses on different study quality and its influence on the relationship between media type and developmental outcome

Media type	Outcome	Fair and good quality studies only						Good quality studies only					
		k	Clusters	β	SE	95% CI	P value	k	Clusters	β	SE	95% CI	P value
Other	General health	2	4	-0.04	0.00	-0.08--0.01	0.043	-	-	-	-	-	-
Other	Depression	15	53	0.12	0.05	0.02-0.22	0.021	-	-	-	-	-	-
Social media	Academic achievement	2	15	-0.07	0.01	-0.2-0.06	0.092	-	-	-	-	-	-
Social media	Depression	22	70	0.09	0.02	0.06-0.12	0.000	6	24	0.08	0.03	0.00-0.16	0.043
Social media	Externalising behaviour	8	37	0.13	0.02	0.07-0.19	0.001	3	15	0.18	0.04	0.01-0.35	0.046
Social media	Internalising and externalising	3	6	0.19	0.02	0.1-0.28	0.011	2	4	0.18	0.03	-0.17-0.53	0.097
Social media	Internalising behaviour	4	25	0.11	0.02	0.05-0.16	0.010	4	25	0.11	0.02	0.05-0.16	0.010
Social media	Positive development	10	30	-0.06	0.02	-0.11--0.02	0.011	-	-	-	-	-	-
Social media	Problematic internet use	4	12	0.21	0.03	0.13-0.3	0.004	-	-	-	-	-	-
Social media	Self-Injurious Thoughts and Behaviours	4	13	0.11	0.03	0.01-0.21	0.038	-	-	-	-	-	-
Social media	Self-perception	3	4	-0.14	0.03	-0.27--0.01	0.045	3	4	-0.14	0.03	-0.27--0.01	0.045
Video games	Attention and Executive Functioning	-	-	-	-	-	-	-	-	-	-	-	-
Video games	Aggression	9	26	0.14	0.04	0.04-0.23	0.009	3	13	0.12	0.07	-0.17-0.40	0.222
Video games	Externalising behaviour	7	21	0.16	0.05	0.03-0.29	0.021	4	11	0.20	0.09	-0.08-0.49	0.110

Notes. Only those that showed a significant effect in the main analyses that include all study quality were presented. Please take caution interpreting results with QMdf2 less than <4.

eTable 17

Sensitivity analyses for publication bias using Eggers test for associations with $k \geq 10$

Media	Outcome	k	Intercept	Bias (Slope)	SE (Slope)	p value
Other	Depression	53	0.16	-1.16	1.93	0.549
Social media	Anxiety	51	0.07	-0.47	1.68	0.778
Social media	Depression	81	0.13	-1.22	1.28	0.343
Social media	Positive development	30	-0.09	0.94	0.62	0.129
Social media	Substance use	31	0.19	-2.18	1.07	0.041
Video games	Aggression	42	0.08	2.19	1.08	0.044
Video games	Depression	18	-0.02	3.79	2.44	0.121
Video games	Externalizing behavior	28	0.23	-1.75	1.67	0.296

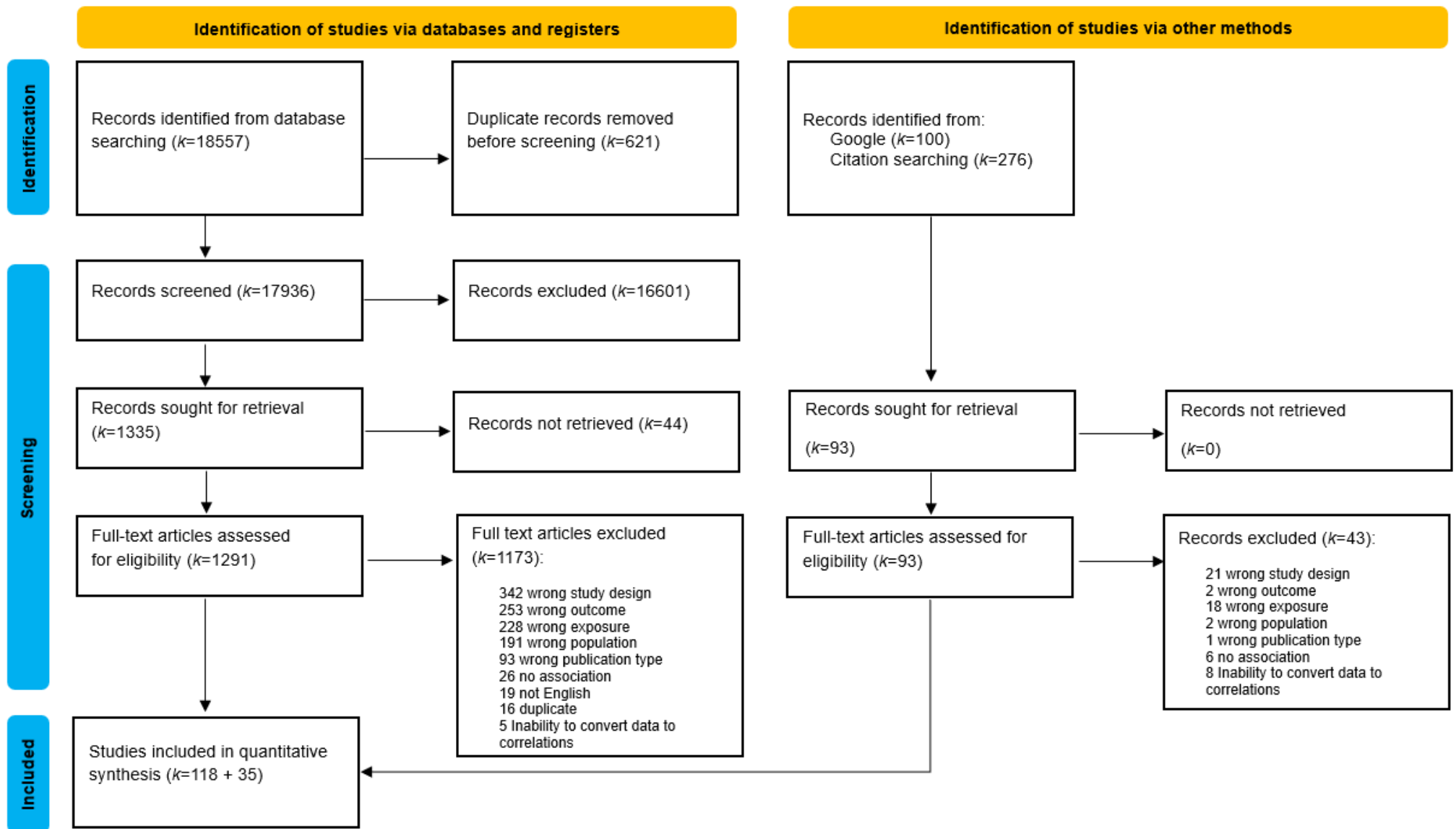
eTable 18

Sensitivity test for potential outlier studies using the leave-one-out approach for associations with $k \geq 10$

Media	Outcome	Potential outlier study	Original Estimate	Revised estimate	Original P Value	Revised P Value
Other	Depression	Ma et al., 2023	0.122	0.078	0.021	0.002
Social media	Anxiety	Winstone et al., 2022	0.054	0.027	0.062	0.010
Social media	Positive development	Ferguson et al., 2014	-0.063	-0.075	0.011	0.001
Social media	Substance use	Brunborg et al., 2022	0.138	0.125	0.000	0.001
Video games	Depression	Krossbakken et al.	0.091	0.051	0.096	0.187

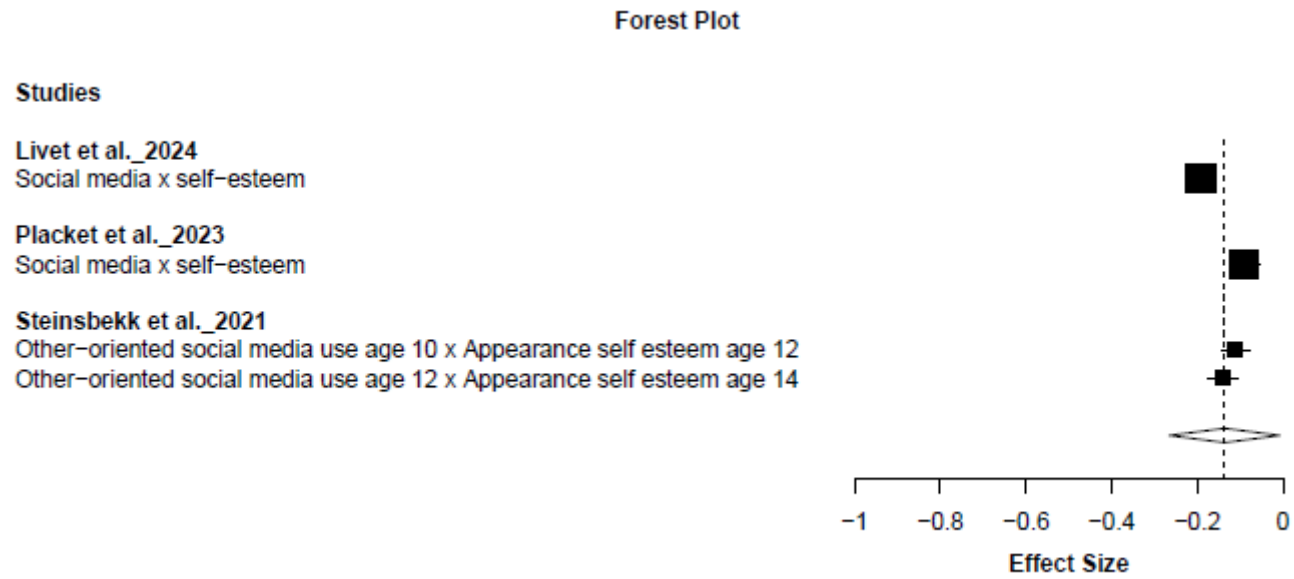
eFigure 1.

PRISMA diagram.



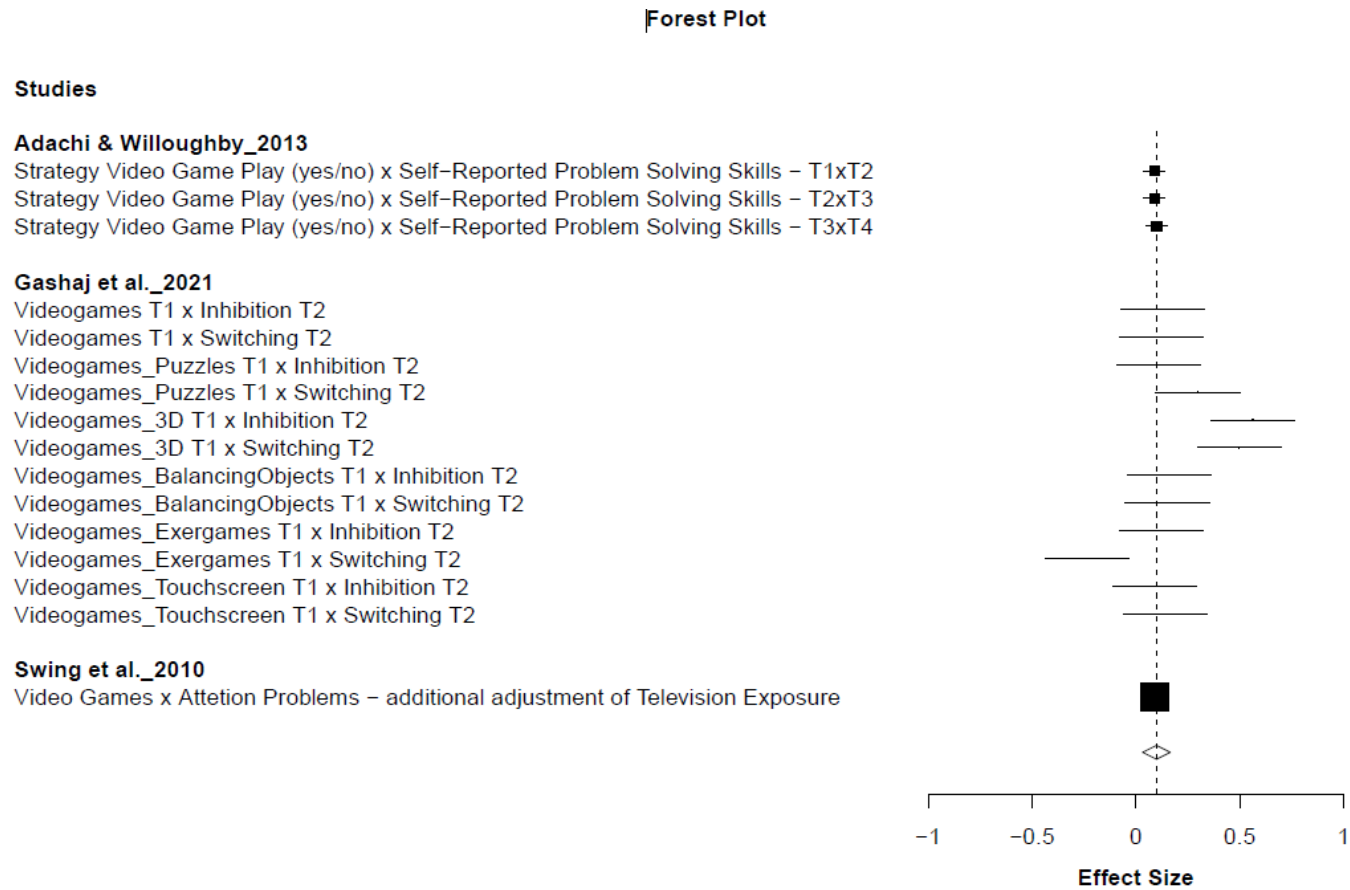
eFigure 2

Exemplar forest plot associations between social media and self-perception



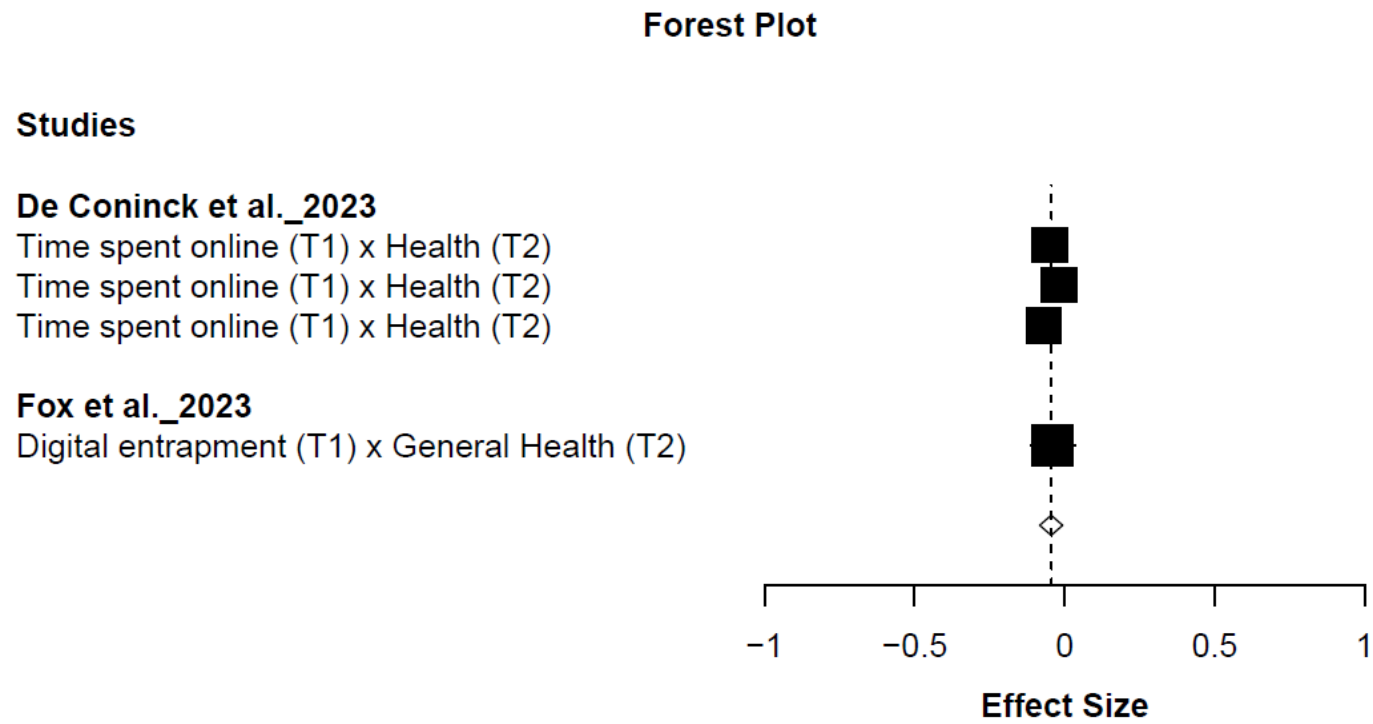
eFigure 3

Exemplar forest plot associations between video games and attention and executive functioning



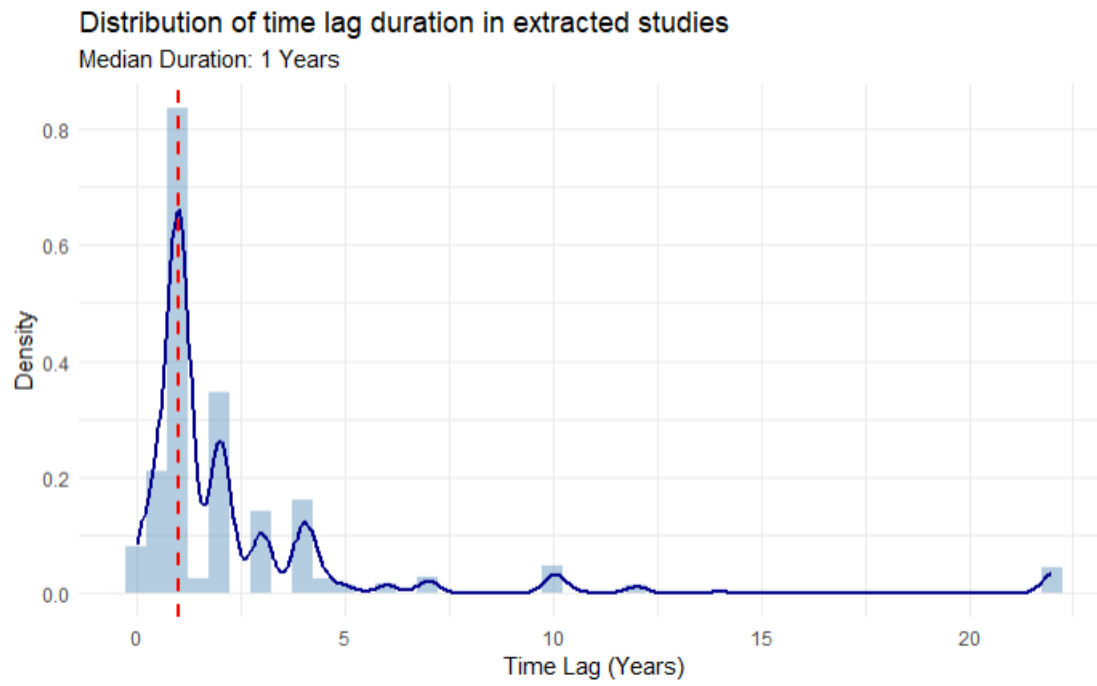
eFigure 4

Exemplar forest plot associations between other media and general health



eFigure 5

Distribution of Time Lag Duration in extracted studies



eFigure 6

Funnel plot for social media and substance use

