

Supplementary material S2

Search Equation

("physical* activit*" OR "exercis*" OR "physical* exercis*" OR "aerobic* exercis*" OR "isometric* exercis*" OR "acute* exercis*" OR "exercise* train*" OR "physical* activit* level*" OR "physical* fitness" OR "exergam*" OR "virtual realit* exercis*" OR "activ* video* gam*") AND ("execut* function*" OR "execut* control*" OR "attention" OR "cognition" OR "memory" OR "problem solving" OR "flexibility" OR "working memory" OR "inhibitory control" OR "mental flexibility") AND ("attention deficit disorder hyperactivity" OR "ADHD" OR "ADDH" OR "attention deficit hyperactivity disorder" OR "attention disorder*" OR "hyperactivity disorder*" OR "hyperactivity") AND ("primary school*" OR "primary education" OR "elementary school*" OR "junior school*" OR "infant school*" OR "primary school student*" OR "child*") AND ("randomized control* trial" OR "intervention" OR "longitudinal") NOT ("adult*") NOT ("systematic review" OR "review" OR "meta-analysis")

Data bases PubMed, Cochrane Library, Web of Science,
Scopus, PsycINFO

PubMed

Steps

Search terms

#1 ("physical* activit*" OR "exercis*" OR "physical* exercis*" OR "aerobic* exercis*" OR "isometric* exercis*" OR "acute* exercis*" OR "exercise* train*" OR "physical* activit* level*" OR "physical* fitness" OR "exergam*" OR "virtual realit* exercis*" OR "activ* video* gam*")

	("execut* function*" OR "execut* control*" OR "attention" OR "cogniti*" OR
#2	"memory" OR "problem solving" OR "flexibility" OR "working memory" OR "inhibitory control" OR "mental flexibility")
	("attention deficit disorder hyperactivity" OR "ADHD" OR "ADDH" OR
#3	"attention deficit hyperactivity disorder" OR "attention disorder*" OR "hyperactivity disorder*" OR "hyperactivity")
	("primary school*" OR "primary education" OR "elementary school*" OR
#4	"junior school*" OR "infant school*" OR "primary school student*" OR "child*")
#5	("adult*")
#6	("systematic review" OR "review" OR "meta-analysis")
Search	(((((#1) AND (#2)) AND (#3)) AND (#4)) NOT (#5)) NOT (#6))
Results	415
	((("physical* activit*" [All Fields] OR "exercis*" [All Fields] OR "physical* exercis*" [All Fields] OR "aerobic* exercis*" [All Fields] OR "isometric* exercis*" [All Fields] OR "acute* exercis*" [All Fields] OR "exercise* train*" [All Fields] OR "physical* activit* level*" [All Fields] OR "physical* fitness" [All Fields] OR "exergam*" [All Fields] OR "virtual realit* exercis*" [All Search Fields] OR "activ* video* gam*" [All Fields]) AND ("execut* function*" [All equation Fields] OR "execut* control*" [All Fields] OR "attention" [All Fields] OR "cogniti*" [All Fields] OR "memory" [All Fields] OR "problem solving" [All Fields] OR "flexibility" [All Fields] OR "working memory" [All Fields] OR "inhibitory control" [All Fields] OR "mental flexibility" [All Fields]) AND ("attention deficit disorder hyperactivity" [All Fields] OR "ADHD" [All Fields] OR "ADDH" [All Fields] OR "attention deficit hyperactivity disorder" [All

Fields] OR "attention disorder"[All Fields] OR "hyperactivity disorder"[All Fields] OR "hyperactivity"[All Fields]) AND ("primary school"[All Fields] OR "primary education"[All Fields] OR "elementary school"[All Fields] OR "junior school"[All Fields] OR "infant school"[All Fields] OR "primary school student"[All Fields] OR "child"[All Fields])) NOT "adult"[All Fields]) NOT ("systematic review"[All Fields] OR "review"[All Fields] OR "meta-analysis"[All Fields])

Cochrane Library

Steps	Search terms
#1	(“physical* activit*” OR “exercis*” OR “physical* exercis*” OR “aerobic* exercis*” OR “isometric* exercis*” OR “acute* exercis*” OR “exercise* train*” OR “physical* activit* level*” OR “physical* fitness” OR “exergam*” OR “virtual realit* exercis*” OR “activ* video* gam*”)
#2	(“execut* function*” OR “execut* control*” OR “attention” OR “cogniti*” OR “memory” OR “problem solving” OR “flexibility” OR “working memory” OR “inhibitory control” OR “mental flexibility”)
#3	(“attention deficit disorder hyperactivity” OR “ADHD” OR “ADHDH” OR “attention deficit hyperactivity disorder” OR “attention disorder*” OR “hyperactivity disorder*” OR “hyperactivity”)
#4	(“primary school*” OR “primary education” OR “elementary school*” OR “junior school*” OR “infant school*” OR “primary school student*” OR “child*”)
#5	(“adult*”)
#6	(“systematic review” OR “review” OR “meta-analysis”)

Search
equation

(“physical* activit*” OR “exercis*” OR “physical* exercis*” OR “aerobic* exercis*” OR “isometric* exercis*” OR “acute* exercis*” OR “exercise* train*” OR “physical* activit* level*” OR “physical* fitness” OR “exergam*” OR “virtual realit* exercis*” OR “activ* video* gam*”) AND (“execut* function*” OR “execut* control*” OR “attention” OR “cognition” OR “memory” OR “problem solving” OR “flexibility” OR “working memory” OR “inhibitory control” OR “mental flexibility”) AND (“attention deficit disorder hyperactivity” OR “ADHD” OR “ADDH” OR “attention deficit hyperactivity disorder” OR “attention disorder*” OR “hyperactivity disorder*” OR “hyperactivity”) AND (“primary school*” OR “primary education” OR “elementary school*” OR “junior school*” OR “infant school*” OR “primary school student*” OR “child*”) NOT (“adult*”) NOT (“systematic review” OR “review” OR “meta-analysis”)

Web of Science

Steps

Search terms

#1

(“physical* activit*” OR “exercis*” OR “physical* exercis*” OR “aerobic* exercis*” OR “isometric* exercis*” OR “acute* exercis*” OR “exercise* train*” OR “physical* activit* level*” OR “physical* fitness” OR “exergam*” OR “virtual realit* exercis*” OR “activ* video* gam*”)

#2

(“execut* function*” OR “execut* control*” OR “attention” OR “cogniti*” OR “memory” OR “problem solving” OR “flexibility” OR “working memory” OR “inhibitory control” OR “mental flexibility”)

#3 (“attention deficit disorder hyperactivity” OR “ADHD” OR “ADHD” OR
 “attention deficit hyperactivity disorder” OR “attention disorder*” OR
 “hyperactivity disorder*” OR “hyperactivity”)

#4 (“primary school*” OR “primary education” OR “elementary school*” OR
 “junior school*” OR “infant school*” OR “primary school student*” OR
 “child”)

#5 (“adult”)

(“systematic review” OR “review” OR “meta-analysis”)

#6

Results

663

ALL=((“physical* activit*” OR “exercis*” OR “physical* exercis*” OR
 “aerobic* exercis*” OR “isometric* exercis*” OR “acute* exercis*” OR
 “exercise* train*” OR “physical* activit* level*” OR “physical* fitness” OR
 “exergam*” OR “virtual realit* exercis*” OR “activ* video* gam”) AND
 (“execut* function*” OR “execut* control*” OR “attention” OR “cognition” OR
 “memory” OR “problem solving” OR “flexibility” OR “working memory” OR
 “inhibitory control” OR “mental flexibility”) AND (“attention deficit disorder
 hyperactivity” OR “ADHD” OR “ADHD” OR “attention deficit hyperactivity
 disorder” OR “attention disorder*” OR “hyperactivity disorder*” OR
 “hyperactivity”) AND (“primary school*” OR “primary education” OR
 “elementary school*” OR “junior school*” OR “infant school*” OR “primary
 school student*” OR “child”) NOT (“adult”) NOT (“systematic review” OR
 “review” OR “meta-analysis”))

Scopus

Steps	Search terms
#1	(“physical* activit*” OR “exercis*” OR “physical* exercis*” OR “aerobic* exercis*” OR “isometric* exercis*” OR “acute* exercis*” OR “exercise* train*” OR “physical* activit* level*” OR “physical* fitness” OR “exergam*” OR “virtual realit* exercis*” OR “activ* video* gam*”)
#2	(“execut* function*” OR “execut* control*” OR “attention” OR “cogniti*” OR “memory” OR “problem solving” OR “flexibility” OR “working memory” OR “inhibitory control” OR “mental flexibility”)
#3	(“attention deficit disorder hyperactivity” OR “ADHD” OR “ADHD” OR “attention deficit hyperactivity disorder” OR “attention disorder*” OR “hyperactivity disorder*” OR “hyperactivity”)
#4	(“primary school*” OR “primary education” OR “elementary school*” OR “junior school*” OR “infant school*” OR “primary school student*” OR “child*”)
#5	(“adult*”)
#6	(“systematic review” OR “review” OR “meta-analysis”)
Results	661
Search Equation	(TITLE-ABS-KEY (("physical* activit*" OR "exercis*" OR "physical* exercis*" OR "aerobic* exercis*" OR "isometric* exercis*" OR "acute* exercis*" OR "exercise* train*" OR "physical* activit* level*" OR "physical* fitness" OR "exergam*" OR "virtual realit* exercis*" OR "activ* video* gam*")) AND TITLE-ABS-KEY (("execut* function*" OR "execut* control*" OR "attention" OR "cognition" OR "memory" OR "problem

solving" OR "flexibility" OR "working memory" OR "inhibitory
 control" OR "mental flexibility")) AND TITLE-ABS-KEY (("attention deficit
 disorder hyperactivity" OR "ADHD" OR "ADDH" OR "attention deficit
 hyperactivity disorder" OR "attention disorder*" OR "hyperactivity
 disorder*" OR "hyperactivity")) AND TITLE-ABS-KEY (("primary
 school*" OR "primary education" OR "elementary school*" OR "junior
 school*" OR "infant school*" OR "primary school
 student*" OR "child*")) AND NOT TITLE-ABS-KEY (("adult*")) AND
 NOT TITLE-ABS-KEY (("systematic review" OR "review" OR "meta-
 analysis")))

PsycINFO

Steps

Search terms

- | | |
|----|--|
| #1 | (“physical* activit*” OR “exercis*” OR “physical* exercis*” OR “aerobic*
exercis*” OR “isometric* exercis*” OR “acute* exercis*” OR “exercise*
train*” OR “physical* activit* level*” OR “physical* fitness” OR “exergam*”
OR “virtual realit* exercis*” OR “activ* video* gam*”) |
| #2 | (“execut* function*” OR “execut* control*” OR “attention” OR “cogniti*” OR
“memory” OR “problem solving” OR “flexibility” OR “working memory” OR
“inhibitory control” OR “mental flexibility”) |
| #3 | (“attention deficit disorder hyperactivity” OR “ADHD” OR “ADDH” OR
“attention deficit hyperactivity disorder” OR “attention disorder*” OR
“hyperactivity disorder*” OR “hyperactivity”) |

	(“primary school*” OR “primary education” OR “elementary school*” OR
#4	“junior school*” OR “infant school*” OR “primary school student*” OR “child”)
#5	(“adult”)
#6	(“systematic review” OR “review” OR “meta-analysis”)
Results	436
Search	(“physical* activit*” OR “exercis*” OR “physical* exercis*” OR “aerobic* exercis*” OR “isometric* exercis*” OR “acute* exercis*” OR “exercise* train*” OR “physical* activit* level*” OR “physical* fitness” OR “exergam*” OR “virtual realit* exercis*” OR “activ* video* gam”) AND (“execut* function*” OR “execut* control*” OR “attention” OR “cognition” OR “memory” OR “problem solving” OR “flexibility” OR “working memory” OR “inhibitory control” OR “mental flexibility”) AND (“attention deficit disorder hyperactivity” OR “ADHD” OR “ADDH” OR “attention deficit hyperactivity disorder” OR ("attention disorders") OR ("hyperactivity disorder") OR “hyperactivity”) AND (("primary school" OR "primary schooling" OR "primary schools" OR "primary schoolteacher") OR “primary education” OR ("elementary school" OR "elementary schoolchildren" OR "elementary schoolhome" OR "elementary schooling" OR "elementary schoolk" OR "elementary schools" OR "elementary schoolteacher") OR ("junior school" OR "junior schools") OR ("infant school" OR "infant schools") OR “primary school student*” OR “child”) NOT (“adult”) NOT (“systematic review” OR “review” OR “meta-analysis”) (Filters: Peer-reviewed articles)
