

## Supplemental material 1 - Search strategies for each database

## PsycINFO

1	Mindfulness/
2	Mindfulness-based intervention/
3	Meditation/
4	Mindful*.mp.
5	"mind ful*".mp.
6	meditat*.mp.
7	MAC.mp.
8	MSPE.mp.
9	MBCT.mp.
10	MBSR.mp.
11	"mental training".mp.
12	"mental resilience training".mp.
13	1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11 or 12
14	exp athletes/
15	athlet*.mp.
16	Para-athlet*.mp.

17	sport*.mp.
18	compet*.mp.
19	player*.mp.
20	14 or 15 or 16 or 17 or 18 or 19
21	clinical trials/ or "treatment outcome clinical trial".md. or ((randomi?ed adj7 trial*) or ((single or doubl* or tripl* or treb*) and (blind* or mask*)) or (controlled adj3 trial*) or (clinical adj2 trial*)),ti,ab,id.
22	Intervention*.mp.
23	21 or 22
24	13 and 20 and 23

## SportDISCUS

1	DE "meditation"
2	TX mindful* OR "mind ful*" OR MAC OR MSPE OR MBCT OR MBSR OR meditat* OR "mental training" OR "mental resilience training"
3	1 or 2
4	DE "ATHLETES" OR DE "ABORIGINAL Australian athletes" OR DE "AFRICAN athletes" OR DE "AMATEUR athletes" OR DE "ARAB athletes" OR DE "ARCHERS" OR DE "ASIAN athletes" OR DE "ATHLETES as actors" OR DE "ATHLETES in art" OR DE "ATHLETES with disabilities" OR DE "BADMINTON players" OR DE "BASEBALL players" OR DE "BASKETBALL players" OR DE "BLACK athletes" OR DE "BOBSLEDDERS" OR DE "BODYBUILDERS" OR DE "BOWLERS" OR DE "BOXERS (Sports)" OR DE "BULLFIGHTERS" OR DE "CANADIAN athletes" OR DE "CANOEISTS" OR DE "CELEBRITY athletes" OR DE "CHILD athletes" OR DE "CHILDREN of athletes" OR DE "CHRISTIAN athletes" OR DE "COLLEGE athletes" OR DE "CRICKET players" OR DE "CROQUET players" OR DE "CURLERS (Athletes)" OR DE "CYCLISTS" OR DE "DEFENSIVE players" OR DE "DIABETIC athletes" OR DE "ELITE athletes" OR DE "ENDURANCE athletes" OR DE "EUROPEAN athletes" OR DE "FENCERS" OR DE "FOOTBALL players" OR DE "GAY athletes" OR DE "GLADIATORS" OR DE "GOLFERS" OR DE "GYMNASTS" OR DE "HANDBALL players" OR DE "HIGH school athletes" OR DE "HOCKEY players" OR DE "INTERSEX athletes" OR DE "JAI alai players" OR DE "JEWISH athletes" OR DE "JUNIOR high school athletes" OR DE

	"KABADDI players" OR DE "LACROSSE players" OR DE "LAWN bowlers" OR DE "LGBTQ+ athletes" OR DE "LONG-term athlete development" OR DE "MALE athletes" OR DE "MARTIAL artists" OR DE "MEXICAN athletes" OR DE "MIDDLE school athletes" OR DE "MOUNTAINEERS" OR DE "MUSLIM athletes" OR DE "NATIVE American athletes" OR DE "NETBALL players" OR DE "OFFENSIVE players" OR DE "OLDER athletes" OR DE "OLYMPIC athletes" OR DE "ORIENTEERS" OR DE "PACIFIC Islander athletes" OR DE "PROFESSIONAL athletes" OR DE "ROWERS" OR DE "RUGBY football players" OR DE "RUNNERS (Sports)" OR DE "SKATERS" OR DE "SKIERS" OR DE "SKYDIVERS" OR DE "SNOWBOARDERS" OR DE "SOCCER players" OR DE "SOFTBALL players" OR DE "SQUASH players" OR DE "STARTING players" OR DE "SUBSTITUTE players" OR DE "SURFERS" OR DE "SWIMMERS" OR DE "TABLE tennis players" OR DE "TEAM handball players" OR DE "TENNIS players" OR DE "TRACK & field athletes" OR DE "TRIATHLETES" OR DE "VOLLEYBALL players" OR DE "WATER polo players" OR DE "WEIGHT lifters" OR DE "WINDSURFERS (Persons)" OR DE "WOMEN athletes" OR DE "WRESTLERS"
5	TX athlet* OR para-athlet* OR sport* OR compet* OR player*
6	4 or 5
7	TX trial* OR "phase i" OR RCT* OR random* OR ((single OR doubl* OR tripl* OR treb*) NEAR/2 (blind* OR mask*)) OR "4 arm" OR "four arm" OR "multicenter stud*" OR "multicentre stud*" OR intervention*
8	3 and 6 and 7

## Medline (Ovid)

1	Mindfulness/
2	Meditation/
3	Mindful*.ti,ab.
4	"mind ful*".ti,ab.
5	meditat*.ti,ab.
6	MAC.ti,ab.
7	MSPE.ti,ab.

8	MBCT.ti.ab.
9	MBSR.ti.ab.
10	"mental training".ti.ab.
11	"mental resilience training".ti.ab.
12	#1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or #9 or #10 or #11
13	exp athletes/
14	athlet*.ti.ab.
15	Para-athlet*
16	sport*.ti.ab.
17	compet*.ti.ab.
18	player*.ti.ab.
19	#13 or #14 or #15 or #16 or #17 or #18
20	("clinical trial" or "clinical trial, phase i" or "clinical trial, phase ii" or clinical trial, phase iii or clinical trial, phase iv or controlled clinical trial or "multicenter study" or "randomized controlled trial").pt. or double-blind method/ or clinical trials as topic/ or clinical trials, phase i as topic/ or clinical trials, phase ii as topic/ or clinical trials, phase iii as topic/ or clinical trials, phase iv as topic/ or controlled clinical trials as topic/ or randomized controlled trials as topic/ or early termination of clinical trials as topic/ or multicenter studies as topic/ or ((randomi?ed adj7 trial*) or (controlled adj3 trial*) or (clinical adj2 trial*) or ((single or doubl* or tripl* or treb*) and (blind* or mask*))).ti.ab,kw. or ("4 arm" or "four arm").ti.ab,kw
21	Intervention*.ti.ab.
22	#20 or #21
23	#12 and #19 and #22

## Scopus

1	Mindfulness (MeSH descriptor exp all trees)
2	Meditation (MeSH descriptor exp all trees)
3	mindful*
4	"mind ful*"
5	meditat*
6	MAC
7	MSPE
8	MBCT
9	MBSR
10	"mental training"
11	"mental resilience training"
12	#1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or #9 or #10 or #11
13	Athletes (MeSH descriptor - term only)
14	athlet*
15	Para-athlet*
16	sport*
17	compet*

18	player*
19	#13 or #14 or #15 or #16 or #17 or #18
20	#12 and #19

## Embase (Ovid)

1	exp mindfulness/
2	exp meditation/
3	mindful*.mp.
4	"mind ful*".mp.
5	meditat*.mp.
6	<a href="#">MAC.mp.</a>
7	<a href="#">MSPE.mp.</a>
8	<a href="#">MBSR.mp.</a>
9	<a href="#">MBCT.mp.</a>
10	"mental training".mp
11	"mental resilience training".mp.
12	1 or 2 or 3 or 4 or 5 or 6 or 7 or 8 or 9 or 10 or 11
13	exp athlete/
14	athlet*.mp.

15	para-athlet*.mp.
16	sport*.mp.
17	compet*.mp.
18	player*.mp.
19	13 or 14 or 15 or 16 or 17 or 18
20	(Randomized controlled trial/ or Controlled clinical study/ or random\$.ti,ab. or randomization/ or intermethod comparison/ or placebo.ti,ab. or (compare or compared or comparison).ti. or ((evaluated or evaluate or evaluating or assessed or assess) and (compare or compared or comparing or comparison)).ab. or (open adj label).ti,ab. or ((double or single or doubly or singly) adj (blind or blinded or blindly)).ti,ab. or double blind procedure/ or parallel group\$1.ti,ab. or (crossover or cross over).ti,ab. or ((assign\$ or match or matched or allocation) adj5 (alternate or group\$1 or intervention\$1 or patient\$1 or subject\$1 or participant\$1)).ti,ab. or (assigned or allocated).ti,ab. or (controlled adj7 (study or design or trial)).ti,ab. or (volunteer or volunteers).ti,ab. or human experiment/ or trial.ti.) not (((random\$ adj sampl\$ adj7 ("cross section\$" or questionnaire\$1 or survey\$ or database\$1)).ti,ab. not (comparative study/ or controlled study/ or randomi?ed controlled.ti,ab. or randomly assigned.ti,ab.)) or (Cross-sectional study/ not (randomized controlled trial/ or controlled clinical study/ or controlled study/ or randomi?ed controlled.ti,ab. or control group\$1.ti,ab.)) or (((case adj control\$) and random\$) not randomi?ed controlled).ti,ab. or (Systematic review not (trial or study)).ti. or (nonrandom\$ not random\$).ti,ab. or "Random field\$.ti,ab. or (random cluster adj3 sampl\$).ti,ab. or ((review.ab. and review.pt.) not trial.ti.) or ("we searched".ab. and (review.ti. or review.pt.)) or "update review".ab. or (databases adj4 searched).ab. or ((rat or rats or mouse or mice or swine or porcine or murine or sheep or lambs or pigs or piglets or rabbit or rabbits or cat or cats or dog or dogs or cattle or bovine or monkey or monkeys or trout or marmoset\$1).ti. and animal experiment/ or (Animal experiment/ not (human experiment/ or human/)))
21	intervention*.mp.
22	20 or 21
23	12 and 19 and 22

Google Scholar (first 100 results only)

(mindful\*"mind ful\*"|MAC|MSPE|MBCT|MBSR|meditat\*"mental training"|"mental  
1 resilience training")(athlet\*|para-athlet\*|sport\*|compet\*|player\*)(trial\*"phase

"|double-blind|RCT\*|random\*|"multicenter stud\*"|"multicentre stud\*"|single-blind|intervention\*)

#### Proquest dissertations and theses

(ti(mindful\* OR "mind ful\*" OR MAC OR MSPE OR MBCT OR MBSR OR meditat\* OR "mental training" OR "mental resilience training") OR ab(mindful\* OR "mind ful\*" OR MAC OR MSPE OR MBCT OR MBSR OR meditat\* OR "mental training" OR "mental resilience training")) AND (ti(athlet\* OR para-athlet\* OR sport\* OR compet\* OR player\*) OR ab(athlet\* OR para-athlet\* OR sport\* OR compet\* OR player\*)) AND (ti(trial\* OR "phase i" OR RCT\* OR random\* OR ((single OR doubl\* OR tripl\* OR treb\*) NEAR/2 (blind\* OR mask\*)) OR "4 arm" OR "four arm" OR "multicenter stud\*" OR "multicentre stud\*" OR intervention\*) OR ab(trial\* OR "phase i" OR RCT\* OR random\* OR ((single OR doubl\* OR tripl\* OR treb\*) NEAR/2 (blind\* OR mask\*)) OR "4 arm" OR "four arm" OR "multicenter 1 stud\*" OR "multicentre stud\*" OR intervention\*))

#### RCT's included from reference lists of relevant systematic reviews

Authors	Year	No. of studies reviewed	RCTS
Noetel et al.	2019	66	17
Li et al.	2019	10	2
Sappington et al.	2015	17	4
Bühlmayer et al.	2017	9	6
Riviera et al.	2011	7	1
Corbally et al.	2019	7	3
Carraca et al.	2018	26	7
Sub-total		142	40