**Appendix: Search strategies used; all searched on Ovid platform, all searched on 8/19/2016**

**Database: Ovid MEDLINE(R) 1946 to Present and Epub Ahead of Print, In-Process & Other Non-Indexed Citations and Ovid MEDLINE(R) Daily**

Search Strategy:

1 exp "Attention Deficit and Disruptive Behavior Disorders"/dt

2 exp central nervous system stimulants/tu or (Amphetamine\* or Adderall or Dyanavel or Adzenys or Evekeo or Atomoxetine hydrochloride or Strattera or Dexmethylphenidate or Focalin or Dextroamphetamine or Amphedex or Dexedrine or Dextrostat or Liquadd or Procentra or Zenzedi or Lisdexamfetamine dimesylate or Vyvanse or Methylphenidate\* or Dexmethylphenidate or Aptensio or Concerta or Daytrana or Metadate CD or Methylin\* or Ritalin or ratiline or ritalina or Tsentedrin or ritaphen or rubifen or tranquilyn or psychostimulant\* or Quillichew or Clonidine or Catapres\* or Duraclon or Kapvay or Guanfacine hydrochloride or Intuniv or Nortriptyline hydrochloride or Aventyl or Pamelor or Venlafaxine hydrochloride or Chlophazolin or Clofelin or Clofenil or Clopheline or Dixarit or Gemiton or Hemiton or Isoglaucon or Klofelin or Klofenil or Allegron or Aventyl or Pamelor or Nortriptyline or Desitriptyline or Desmethylamitriptylin or Norfenazin or Nortrilen or Paxtibi or venlafaxine or trevilor or vandral or dobupal or Effexor or efexor or Zinc or stimulant\* or attenta or centerin or equasym or medikinet or metadate or methylfenidate or methylin or methylphenidylacetate or methylphenindate or methylphenidate or methypatch or penid or phenidyl or phenidylate or quillivant).mp. or (Pharmacologic\* or psychopharmacologic\* or pharmacotherap\* or psychopharmacotherap\* or pharmaceutical\*).mp.

3 1 or 2

4 exp sports/ or exp athletes/ or (athlete\* or sports\* or archer\* or baseball\* or football\* or soccer or rugby or hockey or swimmer\* or gymnast\* or basketball\* or marathon\* or triathl\* or biath\* or skier\* or lacrosse or softball\* or tennis or volleyball or polo or karate or judo or (ball\*1 adj3 player\*) or skate\* or boxer\* boxing or cricket\* or bicyclist\* or cyclist\* or golf or golfer\*1 or handball\* or hurdler\* or jockey\* or kayak\* or netball\* or orienteer\* or sprinter\* or racewalk\* or rower\* or rowing or scull\* or runner\* or running or sailor\* or weightlift\* or wrestler\* or batsman or batsmen or mountaineer\* or skating or skater\*1 or skateboard\* or olympian\* or Paralympic\* or Paralympian\* or thrower\* or bowling or bowler\* or curling or curler\* or jumper\* or vaulter\* or fencer\*1 or diver or divers or bobsledder\* or badminton or aikido or judo or karate or jujitsu or kung fu or tae kwon or (track\* adj2 field) or (martial adj art\*1)).mp.

5 3 and 4

6 exp Child Behavior Disorders/ or exp Attention Deficit Disorder with Hyperactivity/ or exp "Attention Deficit and Disruptive Behavior Disorders"/ or exp Conduct Disorder/ or exp Agonistic Behavior/ or hyperkinesis/ or exp Aggression/ or exp anger/ or exp rage/ or exp impulsive behavior/ or (conduct adj5 (disorder\* or disturb\*)).mp. or (attention\* adj5 deficit\*).mp. or (adhd or "ad/hd" or adhkd or addh or adhs or oppositional\* or hyperactiv\* or hyperkine\* or aggress\* or agonistic\* or anger\* or angry or impulsiv\*).mp. or ((dangerous\* or disrupt\* or defiant\*) adj3 (behav\* or histor\* or conduct\*)).mp.

7 5 and 6

8 (exp animals/ not exp humans/) or (mice or mouse or rat or rats or rodent or rodents or rabbit or rabbits or cat

or cats or dog or dogs or cow or canine\*1 or cows or pig or pigs or piglet or piglets or porcine or chicken or chickens or horse or horses or mare or mares or equine or trotter\* or pony or ponies or bunny or bunnies or bird or birds or cattle or deer or macaque or macaques or monkey or monkeys or boar or boars or muntjac or muntjacs or baboon or baboons or chimpanzee or chimpanzees or buffalo or buffaloes or goat or goats or lemur or lemurs or sheep or swine or camel or camels or squirrel or squirrels or fox or foxes or bear or bears or gazelle or gazelles or impala or impalas or owl or owls or bovine or ovine or fish or fishes or catfish\* or trout\* or lamb\* or fly or flies or frog or frogs or zebra or zebrafish or larva\* or alligator\* or spider\* or veterinar\*).tw. or veterinar\*.jw. (5419273)

9 7 not 8

10 remove duplicates from 9

**Ovid Embase 1988 to 2016 Week 33**, ADHD drug treatment AND athletes (searched 8/19/16)

1. attention deficit disorder/dt [Drug Therapy]
2. (exp central stimulant agents or (Amphetamine\* or Adderall or Dyanavel or Adzenys or Evekeo or Atomoxetine hydrochloride or Strattera or Dexmethylphenidate or Focalin or Dextroamphetamine or Amphedex or Dexedrine or Dextrostat or Liquadd or Procentra or Zenzedi or Lisdexamfetamine dimesylate or Vyvanse or Methylphenidate\* or Dexmethylphenidate or Aptensio or Concerta or Daytrana or Metadate CD or Methylin\* or Ritalin or ratiline or ritalina or Tsentedrin or ritaphen or rubifen or tranquilyn or psychostimulant\* or Quillichew or Clonidine or Catapres\* or Duraclon or Kapvay or Guanfacine hydrochloride or Intuniv or Nortriptyline hydrochloride or Aventyl or Pamelor or Venlafaxine hydrochloride or Chlophazolin or Clofelin or Clofenil or Clopheline or Dixarit or Gemiton or Hemiton or Isoglaucon or Klofelin or Klofenil or Allegron or Aventyl or Pamelor or Nortriptyline or Desitriptyline or Desmethylamitriptylin or Norfenazin or Nortrilen or Paxtibi or venlafaxine or trevilor or vandral or dobupal or Effexor or efexor or Zinc or stimulant\* or attenta or centerin or equasym or medikinet or metadate or methylfenidate or methylin or methylphenidylacetate or methylphenindate or methylphenidate or methypatch or penid or phenidyl or phenidylate or quillivant).ti,ab. or (Pharmacologic\* or psychopharmacologic\* or pharmacotherap\* or psychopharmacotherap\* or pharmaceutical\*)).ti,ab. **AND** (attention deficit disorder/ or disruptive behavior/ or impulse control disorder/ or oppositional defiant disorder/) or ((conduct adj5 (disorder\* or disturb\*)) or (attention\* adj5 deficit\*) or (adhd or "ad/hd" or adhkd or addh or adhs or oppositional\* or hyperactiv\* or hyperkine\* or hkd or aggress\* or agonistic\* or anger\* or angry or impulsiv\* or inattenti\*) or ((dangerous\* or disrupt\* or defiant\*) adj3 (behav\* or histor\* or conduct\*))).mp.
3. exp athlete/ or exp sport/ or (athlet\* or sports\* or archer\* or baseball\* or football\* or soccer or rugby or hockey or swimmer\* or gymnast\* or basketball\* or marathon\* or triathl\* or biath\* or skier\* or lacrosse or softball\* or tennis or volleyball or polo or karate or judo or (ball\*1 adj3 player\*) or skate\* or boxer\* boxing or cricket\* or bicyclist\* or cyclist\* or golf or golfer\*1 or handball\* or hurdler\* or jockey\* or kayak\* or netball\* or orienteer\* or sprinter\* or racewalk\* or rower\* or rowing or scull\* or runner\* or running or sailor\* or weightlift\* or wrestler\* or batsman or batsmen or mountaineer\* or skating or skater\*1 or skateboard\* or olympian\* or Paralympic\* or Paralympian\* or thrower\* or bowling or bowler\* or curling or curler\* or jumper\* or vaulter\* or fencer\*1 or diver or divers or bobsledder\* or badminton or aikido or judo or karate or jujitsu or kung fu or tae kwon or (track\* adj2 field) or (martial adj art\*1)).mp.
4. (1 or 2) and 3
5. 4 not (exp animals/ not exp humans/) or (mice or mouse or rat or rats or rodent or rodents or rabbit or rabbits or cat or cats or dog or dogs or cow or canine\*1 or cows or pig or pigs or piglet or piglets or porcine or chicken or chickens or horse or horses or mare or mares or equine or trotter\* or pony or ponies or bunny or bunnies or bird or birds or cattle or deer or macaque or macaques or monkey or monkeys or boar or boars or muntjac or muntjacs or baboon or baboons or chimpanzee or chimpanzees or buffalo or buffaloes or goat or goats or lemur or lemurs or sheep or swine or camel or camels or squirrel or squirrels or fox or foxes or bear or bears or gazelle or gazelles or impala or impalas or owl or owls or bovine or ovine or fish or fishes or catfish\* or trout\* or lamb\* or fly or flies or frog or frogs or zebra or zebrafish or larva\* or alligator\* or spider\* or veterinar\*).tw. or veterinar\*.jw.
6. Limit 5 (book or book series or chapter or conference abstract or "conference review" or editorial or letter or note or short survey or trade journal)
7. 5 not 6
8. TOTAL 168

**Database: Ovid PsycINFO <1967 to July Week 4 2016> Search Strategy:**

1 (exp attention deficit disorder/ or impulsiveness/ or oppositional defiant disorder/ or exp anger/ or impulsiveness/ or exp impulse control disorders/ or exp aggressive behavior/ or explosive disorder/ or aggressiveness/) and exp drug therapy/ (5424)

2 exp cns stimulating drugs/ or (Amphetamine\* or Adderall or Dyanavel or Adzenys or Evekeo or Atomoxetine hydrochloride or Strattera or Dexmethylphenidate or Focalin or Dextroamphetamine or Amphedex or Dexedrine or Dextrostat or Liquadd or Procentra or Zenzedi or Lisdexamfetamine dimesylate or Vyvanse or Methylphenidate\* or Dexmethylphenidate or Aptensio or Concerta or Daytrana or Metadate CD or Methylin\* or Ritalin or ratiline or ritalina or Tsentedrin or ritaphen or rubifen or tranquilyn or psychostimulant\* or Quillichew or Clonidine or Catapres\* or Duraclon or Kapvay or Guanfacine hydrochloride or Intuniv or Nortriptyline hydrochloride or Aventyl or Pamelor or Venlafaxine hydrochloride or Chlophazolin or Clofelin or Clofenil or Clopheline or Dixarit or Gemiton or Hemiton or Isoglaucon or Klofelin or Klofenil or Allegron or Aventyl or Pamelor or Nortriptyline or Desitriptyline or Desmethylamitriptylin or Norfenazin or Nortrilen or Paxtibi or venlafaxine or trevilor or vandral or dobupal or Effexor or efexor or Zinc or stimulant\* or attenta or centerin or equasym or medikinet or metadate or methylfenidate or methylin or methylphenidylacetate or methylphenindate or methylphenidate or methypatch or penid or phenidyl or phenidylate or quillivant).mp. or (Pharmacologic\* or psychopharmacologic\* or pharmacotherap\* or psychopharmacotherap\* or pharmaceutical\*).mp. (92575)

3 exp attention deficit disorder/ or impulsiveness/ or oppositional defiant disorder/ or exp anger/ or impulsiveness/ or exp impulse control disorders/ or exp aggressive behavior/ or explosive disorder/ or aggressiveness/ or (conduct adj5 (disorder\* or disturb\*)).mp. or (attention\* adj5 deficit\*).mp. or (adhd or "ad/hd" or adhkd or addh or adhs or oppositional\* or hyperactiv\* or hyperkine\* or hkd or aggress\* or agonistic\* or anger\* or angry or impulsiv\* or inattenti\*).mp. or ((dangerous\* or disrupt\* or defiant\*) adj3 (behav\* or histor\* or conduct\*)).mp. (261461)

4 1 or (2 and 3) (14427)

5 exp athletes/ or athletic participation/ or athletic performance/ or athletic training/ or exp sports/ or (athlet\* or sports\* or archer\* or baseball\* or football\* or soccer or rugby or hockey or swimmer\* or gymnast\* or basketball\* or marathon\* or triathl\* or biath\* or skier\* or lacrosse or softball\* or tennis or volleyball or polo or karate or judo or (ball\*1 adj3 player\*) or skate\* or boxer\* boxing or cricket\* or bicyclist\* or cyclist\* or golf or golfer\*1 or handball\* or hurdler\* or jockey\* or kayak\* or netball\* or orienteer\* or sprinter\* or racewalk\* or rower\* or rowing or scull\* or runner\* or running or sailor\* or weightlift\* or wrestler\* or batsman or batsmen or mountaineer\* or skating or skater\*1 or skateboard\* or olympian\* or Paralympic\* or Paralympian\* or thrower\* or bowling or bowler\* or curling or curler\* or jumper\* or vaulter\* or fencer\*1 or diver or divers or bobsledder\* or badminton or aikido or judo or karate or jujitsu or kung fu or tae kwon or (track\* adj2 field) or (martial adj art\*1)).mp. (55693)

6 4 and 5 (119)

7 (exp animals/ not exp humans/) or (mice or mouse or rat or rats or rodent or rodents or rabbit or rabbits or cat or cats or dog or dogs or cow or canine\*1 or cows or pig or pigs or piglet or piglets or porcine or chicken or chickens or horse or horses or mare or mares or equine or trotter\* or pony or ponies or bunny or bunnies or bird or birds or cattle or deer or macaque or macaques or monkey or monkeys or boar or boars or muntjac or muntjacs or baboon or baboons or chimpanzee or chimpanzees or buffalo or buffaloes or goat or goats or lemur or lemurs or sheep or swine or camel or camels or squirrel or squirrels or fox or foxes or bear or bears or gazelle or gazelles or impala or impalas or owl or owls or bovine or ovine or fish or fishes or catfish\* or trout\* or lamb\* or fly or flies or frog or frogs or zebra or zebrafish or larva\* or alligator\* or spider\* or veterinar\*).tw. or veterinar\*.jw. (302544)

8 6 not 7 (71)

9 limit 8 to (abstract collection or bibliography or chapter or editorial or encyclopedia entry or letter or obituary or poetry or reprint or review-book or review-media or review-software & other) (13)

10 8 not 9 (58)

**EBM Reviews - Cochrane Database of Systematic Reviews 2005 to August 17, 2016 (searched 8/19/2016)**

1. (attention\* adj5 deficit\*).mp. or (adhd or "ad/hd" or adhkd or addh or adhs or oppositional\* or hyperactiv\* or hyperkine\* or hkd or aggress\* or agonistic\* or anger\* or angry or impulsiv\* or inattenti\*).ti,ab. or ((dangerous\* or disrupt\* or defiant\*) adj3 (behav\* or histor\* or conduct\*)).ti,ab.
2. (athlet\* or sports\* or archer\* or baseball\* or football\* or soccer or rugby or hockey or swimmer\* or gymnast\* or basketball\* or marathon\* or triathl\* or biath\* or skier\* or lacrosse or softball\* or tennis or volleyball or polo or karate or judo or (ball\*1 adj3 player\*) or skate\* or boxer\* boxing or cricket\* or bicyclist\* or cyclist\* or golf or golfer\*1 or handball\* or hurdler\* or jockey\* or kayak\* or netball\* or orienteer\* or sprinter\* or racewalk\* or rower\* or rowing or scull\* or runner\* or running or sailor\* or weightlift\* or wrestler\* or batsman or batsmen or mountaineer\* or skating or skater\*1 or skateboard\* or olympian\* or Paralympic\* or Paralympian\* or thrower\* or bowling or bowler\* or curling or curler\* or jumper\* or vaulter\* or fencer\*1 or diver or divers or bobsledder\* or badminton or aikido or judo or karate or jujitsu or kung fu or tae kwon or (track\* adj2 field) or (martial adj art\*1)).ti,ab.
3. 1 and 2
4. TOTAL=0