**INCOG 2.0 Supplementary Material**

**Cognitive Rehabilitation Search**

**S1.** Search Strategy for Systematic Review of Cognition Literature

To explore the moderate-to-severe traumatic brain injury literature, we searched the following databases in July 2021. The limiters are presented in the first table and the Boolean search query is presented in the second table:

*CINAHL, Cochrane, Embase, MEDLINE, PyscINFO*

|  |  |
| --- | --- |
| **Database limiters** |  |
| Limiter | Options selected |
| Date limit | 2014-2021 |
| Language | English |

|  |  |
| --- | --- |
| Boolean search query |  |
| Key word category | Synonyms and related terms |
| Traumatic Brain Injury | **TITLE; KEYWORDS; ABSTRACT** (Brain Inj\* OR Head Inj\* OR Traumatic Brain Injury OR TBI OR Acquired Brain Injury OR ABI OR Head Trauma OR Brain Trauma) AND |
| Rehabilitation  | **TITLE; KEYWORDS; ABSTRACT (**Rehabilitation OR Telerehab\* OR Treatment OR Intervention OR Therapy OR Training OR Multimodal OR multidisciplinary OR Program OR Management OR Strategy OR Prophyla\* OR prevention OR Pharmacological OR medication OR drug OR Non$pharmacological OR Complementary OR Alternative OR Group OR Individual) AND |
| Cognition  | **TITLE; KEYWORDS; ABSTRACT** (Social Cognition OR Emotion OR Empathy OR Affective OR Theory of Mind OR Facial Expression OR Social Understanding OR False Belief\* OR Perspective Taking OR Attention OR Focus OR Concentration OR Attentiveness OR Multi$tasking OR Information Process\* OR Memory OR Recall OR Recognition OR Recollection OR Retrieval OR Problem$Solving OR Executive Function\* OR executive dysfunction\* OR Self$regulation OR Cognitive$communication OR Metacognition OR Metacognitive Thoughts OR Metacognitive Beliefs OR Cognition OR Cogniti\* OR Cognitive Function OR Brain Function OR Cognitive Performance OR Cognitive Abilit\* OR ((Verbal OR Written OR Social OR Non$verbal OR Alternative OR Augmentative) and Communication) OR speech OR Language OR Communicat\* OR Conversation OR Communication Skills OR Interpersonal Communication OR Interaction OR decision making OR collaboration). |

aNote that when we searched the key terms traumatic brain injury, rehabilitation and post-traumatic amnesia, we specified the use of MeSH Terms (Medical Sub-Headings) as available in each database to incorporate relevant internationally recognized MeSH headings/subheadings from the US National Library of Medicine into the search.

**S2.** Customized search strategies.

**Procedure for CINAHL Search:**

Deselect suggest subject terms. Paste in advanced search:

Search one:

(Brain Inj\* OR Head Inj\* OR Traumatic Brain Injury OR TBI OR Acquired Brain Injury OR ABI OR Head Trauma OR Brain Trauma)

Search two:

MH “Brain injuries+”

Search three:

(Rehabilitation OR Telerehab\* OR Treatment OR Intervention OR Therapy OR Training OR Multimodal OR multidisciplinary OR Program OR Management OR Strategy OR Prophyla\* OR prevention OR Pharmacological OR medication OR drug OR Non$pharmacological OR Complementary OR Alternative OR Group OR Individual)

Search four:

MH “Rehabilitation+” OR MH “Therapeutics+” OR MH “Preventative healthcare+” OR MH “Medicine+”

Search five:

Social Cognition OR Emotion OR Empathy OR Affective OR Theory of Mind OR Facial Expression OR Social Understanding OR False Belief\* OR Perspective Taking OR Attention OR Focus OR Concentration OR Attentiveness OR Multi$tasking OR Information Process\* OR Memory OR Recall OR Recognition OR Recollection OR Retrieval OR Problem$Solving OR Executive Function\* OR executive dysfunction\* OR Self$regulation OR Cognitive$communication OR Metacognition OR Metacognitive Thoughts OR Metacognitive Beliefs OR Cognition OR Cogniti\* OR Cognitive Function OR Brain Function OR Cognitive Performance OR Cognitive Abilit\* OR ((Verbal OR Written OR Social OR Non$verbal OR Alternative OR Augmentative) and Communication) OR speech OR Language OR Communicat\* OR Conversation OR Communication Skills OR Interpersonal Communication OR Interaction OR decision making OR collaboration

Search six:

MH “Social cognition” OR MH “Identity recognition+” OR MH “Attention+” OR MH “Multitasking behavior” OR MH “Mental processes+” OR MH “Social behavior+” OR MH “Communication+” OR MH “Behavior modification+”

Combine search one and two, search three and four, search five and six with OR. Then combine these searchers with AND to get results list.

Select English and Article and dates (2014 – 2021); this will stay the same for the rest of the searches.

**Procedure for Cochrane Search:**

Paste in advanced search:

Search one:

(Brain Inj\* OR Head Inj\* OR Traumatic Brain Injury OR TBI OR Acquired Brain Injury OR ABI OR Head Trauma OR Brain Trauma)

Search two:

Exp Brain Injuries/

Search three:

(Rehabilitation OR Telerehab\* OR Treatment OR Intervention OR Therapy OR Training OR Multimodal OR multidisciplinary OR Program OR Management OR Strategy OR Prophyla\* OR prevention OR Pharmacological OR medication OR drug OR Non$pharmacological OR Complementary OR Alternative OR Group OR Individual)

Search four:

Exp Rehabilitation/ OR exp Therapeutics/ OR exp Medicine/

Search five:

Social Cognition OR Emotion OR Empathy OR Affective OR Theory of Mind OR Facial Expression OR Social Understanding OR False Belief\* OR Perspective Taking OR Attention OR Focus OR Concentration OR Attentiveness OR Multi$tasking OR Information Process\* OR Memory OR Recall OR Recognition OR Recollection OR Retrieval OR Problem$Solving OR Executive Function\* OR executive dysfunction\* OR Self$regulation OR Cognitive$communication OR Metacognition OR Metacognitive Thoughts OR Metacognitive Beliefs OR Cognition OR Cogniti\* OR Cognitive Function OR Brain Function OR Cognitive Performance OR Cognitive Abilit\* OR ((Verbal OR Written OR Social OR Non$verbal OR Alternative OR Augmentative) and Communication) OR speech OR Language OR Communicat\* OR Conversation OR Communication Skills OR Interpersonal Communication OR Interaction OR decision making OR collaboration

Search six:

[mh “Mental processes”] OR [mh “Attention”] OR [mh “Multitasking behavior”] OR [mh “Social behavior”] OR [mh “communication”] OR [mh “Behavior therapy] OR [mh “Psychological phenomena”]

Combine search one and two, search three and four, search five and six with OR. Then combine these searchers with AND to get results list.

**Procedure for Embase Search:**

Paste in advanced search:

Search one:

(Brain Inj\* OR Head Inj\* OR Traumatic Brain Injury OR TBI OR Acquired Brain Injury OR ABI OR Head Trauma OR Brain Trauma)

Search two:

Exp Brain Injury/

Search three:

(Rehabilitation OR Telerehab\* OR Treatment OR Intervention OR Therapy OR Training OR Multimodal OR multidisciplinary OR Program OR Management OR Strategy OR Prophyla\* OR prevention OR Pharmacological OR medication OR drug OR Non$pharmacological OR Complementary OR Alternative OR Group OR Individual)

Search four:

Exp Rehabilitation/ OR exp Therapy/ OR exp Training/ OR exp Prevention/ OR exp Medicine/

Search five:

Social Cognition OR Emotion OR Empathy OR Affective OR Theory of Mind OR Facial Expression OR Social Understanding OR False Belief\* OR Perspective Taking OR Attention OR Focus OR Concentration OR Attentiveness OR Multi$tasking OR Information Process\* OR Memory OR Recall OR Recognition OR Recollection OR Retrieval OR Problem$Solving OR Executive Function\* OR executive dysfunction\* OR Self$regulation OR Cognitive$communication OR Metacognition OR Metacognitive Thoughts OR Metacognitive Beliefs OR Cognition OR Cogniti\* OR Cognitive Function OR Brain Function OR Cognitive Performance OR Cognitive Abilit\* OR ((Verbal OR Written OR Social OR Non$verbal OR Alternative OR Augmentative) and Communication) OR speech OR Language OR Communicat\* OR Conversation OR Communication Skills OR Interpersonal Communication OR Interaction OR decision making OR collaboration

Search six:

Exp Mental function/ OR exp Attention/ OR exp Social behavior/ OR exp Behavior therapy/

Combine search one and two, search three and four, search five and six with OR. Then combine these searchers with AND to get results list.

**Procedure for Medline Search:**

Paste in advanced search:

Search one:

(Brain Inj\* OR Head Inj\* OR Traumatic Brain Injury OR TBI OR Acquired Brain Injury OR ABI OR Head Trauma OR Brain Trauma)

Search two:

Exp Brain Injuries/

Search three:

(Rehabilitation OR Telerehab\* OR Treatment OR Intervention OR Therapy OR Training OR Multimodal OR multidisciplinary OR Program OR Management OR Strategy OR Prophyla\* OR prevention OR Pharmacological OR medication OR drug OR Non$pharmacological OR Complementary OR Alternative OR Group OR Individual)

Search four:

Exp Rehabilitation/ OR exp Therapeutics/ OR exp Medicine/

Search five:

Social Cognition OR Emotion OR Empathy OR Affective OR Theory of Mind OR Facial Expression OR Social Understanding OR False Belief\* OR Perspective Taking OR Attention OR Focus OR Concentration OR Attentiveness OR Multi$tasking OR Information Process\* OR Memory OR Recall OR Recognition OR Recollection OR Retrieval OR Problem$Solving OR Executive Function\* OR executive dysfunction\* OR Self$regulation OR Cognitive$communication OR Metacognition OR Metacognitive Thoughts OR Metacognitive Beliefs OR Cognition OR Cogniti\* OR Cognitive Function OR Brain Function OR Cognitive Performance OR Cognitive Abilit\* OR ((Verbal OR Written OR Social OR Non$verbal OR Alternative OR Augmentative) and Communication) OR speech OR Language OR Communicat\* OR Conversation OR Communication Skills OR Interpersonal Communication OR Interaction OR decision making OR collaboration

Search six:

Exp Mental processes/ OR exp Attention/ OR Multitasking behavior/ OR exp Social behavior/ OR exp Communication/ OR exp Behavior therapy/

Combine search one and two, search three and four, search five and six with OR. Then combine these searchers with AND to get results list.

**Procedure for PsycINFO Search:**

Paste in advanced search:

Search one:

(Brain Inj\* OR Head Inj\* OR Traumatic Brain Injury OR TBI OR Acquired Brain Injury OR ABI OR Head Trauma OR Brain Trauma)

Search two:

Exp Brain Injuries/

Search three:

(Rehabilitation OR Telerehab\* OR Treatment OR Intervention OR Therapy OR Training OR Multimodal OR multidisciplinary OR Program OR Management OR Strategy OR Prophyla\* OR prevention OR Pharmacological OR medication OR drug OR Non$pharmacological OR Complementary OR Alternative OR Group OR Individual)

Search four:

Exp Rehabilitation/ OR exp Treatment/ OR exp Training/ OR exp Prevention/

Search five:

Social Cognition OR Emotion OR Empathy OR Affective OR Theory of Mind OR Facial Expression OR Social Understanding OR False Belief\* OR Perspective Taking OR Attention OR Focus OR Concentration OR Attentiveness OR Multi$tasking OR Information Process\* OR Memory OR Recall OR Recognition OR Recollection OR Retrieval OR Problem$Solving OR Executive Function\* OR executive dysfunction\* OR Self$regulation OR Cognitive$communication OR Metacognition OR Metacognitive Thoughts OR Metacognitive Beliefs OR Cognition OR Cogniti\* OR Cognitive Function OR Brain Function OR Cognitive Performance OR Cognitive Abilit\* OR ((Verbal OR Written OR Social OR Non$verbal OR Alternative OR Augmentative) and Communication) OR speech OR Language OR Communicat\* OR Conversation OR Communication Skills OR Interpersonal Communication OR Interaction OR decision making OR collaboration

Search six:

Exp Human information processes/ OR exp Social behavior/ OR exp Communication/ OR exp Behavior therapy/

Combine search one and two, search three and four, search five and six with OR. Then combine these searchers with AND to get results list.

**Medline Search for Guidelines**

1. exp clinical pathway/
2. exp clinical protocol/
3. clinical protocols/
4. exp consensus/
5. exp consensus development conference/
6. exp consensus development conferences as topic/
7. critical pathways/
8. exp guideline/
9. guidelines as topic/
10. exp practice guideline/
11. practice guidelines as topic/
12. health planning guidelines/
13. Clinical Decision Rules/
14. (guideline or practice guideline or consensus development conference or consensus development conference, NIH).pt.
15. (position statement\* or policy statement\* or practice parameter\* or best practice\*).ti,ab,kf,kw.
16. (standards or guideline or guidelines).ti,kf,kw.
17. ((practice or treatment\* or clinical) adj guideline\*).ab.
18. (CPG or CPGs).ti.
19. consensus\*.ti,kf,kw.
20. consensus\*.ab. /freq=2
21. ((critical or clinical or practice) adj2 (path or paths or pathway or pathways or protocol\*)).ti,ab,kf,kw.
22. recommendat\*.ti,kf,kw. or guideline recommendation\*.ab.
23. (care adj2 (standard or path or paths or pathway or pathways or map or maps or plan or plans)).ti,ab,kf,kw.
24. (algorithm\* adj2 (screening or examination or test or tested or testing or assessment\* or diagnosis or diagnoses or diagnosed or diagnosing)).ti,ab,kf,kw.
25. (algorithm\* adj2 (pharmacotherap\* or therap\* or treatment\* or intervention\*)).ti,ab,kf,kw.
26. (guideline\* or standards or consensus\* or recommendat\*).au.
27. (guideline\* or standards or consensus\* or recommendat\*).ca.
28. or/1-27
29. exp Brain Injuries/
30. 28 and 29
31. 30 filtered (2014-current, English, adults)

*Note: Search terms modified from the CADTH guideline search string:* [*https://www.cadth.ca/strings-attached-cadths-database-search-filters*](https://www.cadth.ca/strings-attached-cadths-database-search-filters)*.*

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