

Mental ill health and behaviours that challenge in adults with learning/intellectual disabilities: review of evidence

Appendices 1 & 2

Appendix 1 – Mental Health & Challenging Behaviour search strategies

Mental health and learning disabilities – search strategies

Embase (OVID) – 16/11/2021

	Searches	Results
1	developmental disorder/ or learning disorder/	57990
2	intellectual impairment/ or intellectual disability/	31422
3	((learn* or development* or mental* or intellect* or cognitv*) adj2 (deficien* or disab*or disorder* or deficien* or difficult* or impair* or handicap* or retard* or sub?normal* or challenge*)).ti,ab.	69495
4	((mental* or psychologic*) adj2 (health or disorder* or disease* or deficien* or illness or problem*)).ti,ab.	284115
5	depression/	348968
6	anxiety disorder/ or anxiety/	278056
7	phobia/	9674
8	obsessive compulsive disorder/	25755
9	psychosis/	80011
10	dementia/	112045
11	attention deficit disorder/	64872
12	1-4 OR	144136
13	5-12 OR	936014
14	13 AND 14	25676
15	15 Limits: (full text and human and english language and embase and yr="2017 -2021" and (adult <18 to 64 years> or aged <65+ years>))	372

Medline (OVID) – 16/11/2021

	Searches	Results
1	developmental disabilities/ or intellectual disability/	38614
2	((learn* or development* or mental* or intellect* or cognitv*) adj2 (deficien* or disab*or disorder* or deficien* or difficult* or impair* or handicap* or retard* or sub?normal* or challenge*)).ti,ab	43457
4	((mental* or psychologic*) adj2 (health or disorder* or disease* or deficien* or illness or problem*)).ti,ab.	176966
5	depressive disorder/ or depression/	149773
6	anxiety disorders/ or anxiety/	94356
7	psychotic disorders/	27982
8	dementia/	42606
9	Attention Deficit Disorder with Hyperactivity/	27803
10	1-3 OR	74553
11	4-9 OR	434686
12	10 AND 11	8199
13	12 limit: (english language and full text and humans and yr="2017 -2021" and "all adult (19 plus years)" and medline)	243

PsycInfo (EBSCOhost) - 16/11/2021

#	Query	Results
S13	S12 (Limits: Full text, 2017 onwards, All journals, English, Adulthood (18 years & older), Human, exclude dissertations).	132
S12	S10 AND S11	10,751
S11	S4 OR S5 OR S6 OR S7 OR S8 OR S9	462,701
S10	S1 OR S2 OR S3	112,452
S9	DE "Attention Deficit Disorder with Hyperactivity" OR DE "Attention Deficit Disorder"	33,161
S8	DE "Psychosis"	29,980
S7	DE "Dementia"	42,961
S6	DE "Anxiety" OR DE "Anxiety Disorders"	112,041
S5	DE "Major Depression" OR DE "Depression (Emotion)"	159,775
S4	DE "Mental Disorders" OR DE "Serious Mental Illness"	138,019
S3	TX "intellectual* disab*" or "intellectual* disorder*" or "intellectual* deficien*" or "intellectual* difficult*" or "intellectual* impair" or "intellectual* handicap*" or "intellectual* retard*" or "intellectual* sub#normal*" or "intellectual* challenge*"	35,522
S2	TX "learning disab*" or "learning disorder*" or "learning deficien*" or "learning difficult*" or "learning impair*" or "learning handicap*" or "learning retard*" or "sub#normal* learning" or "learning challenge*"	47,600
S1	DE "Intellectual Development Disorder" OR DE "Developmental Disabilities" OR DE "Learning Disorders" OR DE "Learning Disabilities"	81,090

CINAHL (EBSCOhost) – 16/11/2021

#	Query	Results
S13	S12 (Limits: Full text, 2017 onwards, English, All adult)	36
S12	S10 AND S11	3,183
S11	S4 OR S5 OR S6 OR S7 OR S8 OR S9	197,969
S10	S1 OR S2 OR S3	53,302
S9	(MM "Attention Deficit Hyperactivity Disorder")	13,357
S8	(MM "Psychotic Disorders")	10,544
S7	(MH "Dementia") OR (MM "Dementia, Senile")	44,556
S6	(MM "Anxiety") OR (MM "Anxiety Disorders")	28,471
S5	(MM "Depression")	69,704
S4	(MM "Mental Disorders") OR (MM "Mental Disorders, Chronic")	45,598
S3	TX "intellectual* disab*" or "intellectual* disorder*" or "intellectual* deficien*" or "intellectual* difficult*" or "intellectual* impair" or "intellectual* handicap*" or "intellectual* retard*" or "intellectual* sub#normal*" or "intellectual* challenge*"	27,891
S2	TX "learning disab*" or "learning disorder*" or "learning deficien*" or "learning difficult*" or "learning impair*" or "learning handicap*" or "learning retard*" or "sub#normal* learning" or "learning challenge*"	22,472
S1	DE "Intellectual Development Disorder" OR DE "Developmental Disabilities" OR DE "Learning Disorders" OR DE "Learning Disabilities"	17,674

Challenging behaviour and learning disabilities – search strategies

Embase (OVID) – 16/11/2021

	Searches	Results
1	developmental disorder/ or learning disorder/	57990
2	intellectual impairment/ or intellectual disability/	31422
3	((learn* or development* or mental* or intellect* or cognitv*) adj2 (deficien* or disab*or disorder* or deficien* or difficult* or impair* or handicap* or retard* or sub?normal* or challenge*)).ti,ab.	69495
4	(abus* or aggress* or agitat* or agonistic or anger or angry or assault* or attack* or bizarre or challenging behav* or combative or danger* or disrupt* or disturb* or (explosive adj2 disorder) or harass* or hostil* or (impulse control adj disorder*) or intimidat* or rage* or threat* or untoward or violen*).ti,ab.	1648004
5	(challeng* adj2 Behavio*) or (behavio* adj2 challeng*).ti,ab	4349
6	behavior disorder/	47774
7	abnormal behavior/	2457
8	disruptive behavior/	3089
9	impulse control disorder/	3866
10	1-3 OR	142907
11	4-9 OR	1686691
12	10 AND 11	22759
13	12 Limits: full-text, human, English, Adults (=>18 years), 2014 onwards	407

Medline (OVID) – 16/11/2021

	Searches	Results
1	developmental disabilities/ or intellectual disability/	38614
2	((learn* or development* or mental* or intellect* or cognitv*) adj2 (deficien* or disab*or disorder* or deficien* or difficult* or impair* or handicap* or retard* or sub?normal* or challenge*)).ti,ab	43457
3	(abus* or aggress* or agitat* or agonistic or anger or angry or assault* or attack* or bizarre or challenging behav* or combative or danger* or disrupt* or disturb* or (explosive adj2 disorder) or harass* or hostil* or (impulse control adj disorder*) or intimidat* or rage* or threat* or untoward or violen*).ti,ab.	1010270
4	(challeng* adj2 Behavio*) or (behavio* adj2 challeng*).ti,ab	2484
5	problem Behavior/	3087
6	Social Behavior Disorders/	2324
7	1 OR 2	73753
8	3-6 OR	1014644
9	7 AND 8	8570
10	limit 9 to (english language and full text and humans and yr="2014 - 2021" and "all adult (19 plus years)" and medline)	285

PsycInfo (EBSCOhost) - 16/11/2021

#	Query	Results
S13	S12 Limiters - Linked Full Text; Published Date: 20141001-20211231; English; Exclude Dissertations	337
S12	S10 AND S11	7,852
S11	S4 OR S5 OR S6 OR S7 OR S8 OR S9	213,167
S10	S1 OR S2 OR S3	109,771
S9	TX "behavio* challeng*"	1,050
S8	TX "challeng* behavio*"	3,909
S7	DE "Behavior Problems"	30,684
S6	DE "Aggressiveness" OR DE "Aggressive Behavior"	30,608
S5	DE "Self-Injurious Behavior"	7,372
S4	TI ((abus* or aggress* or agitat* or agonistic or anger or angry or assault* or attack* or bizarre or combative or danger* or destruct* or disrupt* or disturb* or harass* or hostile* or intimidat* or rage* or threat* or untoward or "un toward" or violen*) or ab ((abus* or aggress* or agitat* or agonistic or anger or angry or assault* or attack* or bizarre or combative or danger* or destruct* or disrupt* or disturb* or harass* or hostile* or intimidat* or rage* or threat* or "un toward" or untoward or violen*))	168,749
S3	TX "intellectual* disab*" or "intellectual* disorder*" or "intellectual* deficien*" or "intellectual* difficult*" or "intellectual* impair" or "intellectual* handicap*" or "intellectual* retard*" or "intellectual* sub#normal*" or "intellectual* challenge*"	35,522
S2	TX "learning disab*" or "learning disorder*" or "learning deficien*" or "learning difficult*" or "learning impair*" or "learning handicap*" or "learning retard*" or "sub#normal* learning" or "learning challenge*"	47,600
S1	DE "Intellectual Development Disorder" OR DE "Developmental Disabilities" OR DE "Learning Disorders" OR DE "Learning Disabilities"	81,090

CINAHL (EBSCOhost) – 16/11/2021

#	Query	Results
S12	S11 Linked Full Text; Published Date: 20141001-20211231; English Language; Peer Reviewed; Exclude MEDLINE records; Age Groups: All Adult	58
S11	S9 AND S10	2,249
S10	S4 OR S5 OR S6 OR S7 OR S8 OR S8	117,370
S9	S1 OR S2 OR S3	52,152
S8	TX "behavio* challeng*"	383
S7	TX "challeng* behavio*"	2,229
S6	MM "Disruptive Behavior"	2,195
S5	MM "Social Behavior Disorders"	1,782
S4	TI ((abus* or aggress* or agitat* or agonistic or anger or angry or assault* or attack* or bizarre or combative or danger* or destruct* or disrupt* or disturb* or harass* or hostile* or intimidat* or rage* or threat* or untoward or "un toward" or violen*)) or ab ((abus* or aggress* or agitat* or agonistic or anger or angry or assault* or attack* or bizarre or combative or danger* or destruct* or disrupt* or disturb* or harass* or hostile* or intimidat* or rage* or threat* or "un toward" or untoward or violen*))	112,300
S3	TX "intellectual* disab*" or "intellectual* disorder*" or "intellectual* deficien*" or "intellectual* difficult*" or "intellectual* impair" or "intellectual* handicap*" or "intellectual* retard*" or "intellectual* sub#normal*" or "intellectual* challenge*"	27,898
S2	TX "learning disab*" or "learning disorder*" or "learning deficien*" or "learning difficult*" or "learning impair*" or "learning handicap*" or "learning retard*" or "sub#normal* learning" or "learning challenge*"	22,488
S1	DE "Intellectual Development Disorder" OR DE "Developmental Disabilities" OR DE "Learning Disorders" OR DE "Learning Disabilities"	17,676

Appendix 2 – Included studies

Research question 1

Axmon, A., Björne, P., Nylander, L., & Ahlström, G. (2018). Psychiatric diagnoses in relation to severity of intellectual disability and challenging behaviors: a register study among older people. *Aging & Mental Health, 22*(10), 1344-1350.

Blickwedel, J., Ali, A., & Hassiotis, A. (2019). Epilepsy and challenging behaviour in adults with intellectual disability: A systematic review. *Journal of Intellectual & Developmental Disability, 44*(2), 219-231.

Bowring, D. L., Totsika, V., Hastings, R. P., Toogood, S., & Griffith, G. M. (2017). Challenging behaviours in adults with an intellectual disability: A total population study and exploration of risk indices. *British Journal of Clinical Psychology, 56*(1), 16-32.

Bond, L., Carroll, R., Mulryan, N., O'dwyer, M., O'Connell, J., Monaghan, R., ... & McCarron, M. (2020). Biopsychosocial factors associated with depression and anxiety in older adults with intellectual disability: results of the wave 3 Intellectual Disability Supplement to The Irish Longitudinal Study on Ageing. *Journal of Intellectual Disability Research, 64*(5), 368-380.

Carr, J., & Collins, S. (2018). 50 years with Down syndrome: A longitudinal study. *Journal of Applied Research in Intellectual Disabilities, 31*(5), 743-750.

Mazza, M. G., Rossetti, A., Crespi, G., & Clerici, M. (2020). Prevalence of co-occurring psychiatric disorders in adults and adolescents with intellectual disability: A systematic review and meta-analysis. *Journal of Applied Research in Intellectual Disabilities, 33*(2), 126-138.

McCarron, M., McCallion, P., Reilly, E., Dunne, P., Carroll, R., & Mulryan, N. (2017). A prospective 20-year longitudinal follow-up of dementia in persons with Down syndrome. *Journal of Intellectual Disability Research, 61*(9), 843-852.

Nimmo-Smith, V., Heuvelman, H., Dalman, C., Lundberg, M., Idring, S., Carpenter, P., ... & Rai, D. (2020). Anxiety disorders in adults with autism spectrum disorder: a population-based study. *Journal of Autism and Developmental Disorders, 50*(1), 308-318.

O'Dwyer, C., McCallion, P., Henman, M., McCarron, M., O'Leary, E., Burke, E., ... & O'Dwyer, M. (2019). Prevalence and patterns of antipsychotic use and their associations with mental health and problem behaviours among older adults with intellectual disabilities. *Journal of Applied Research in Intellectual Disabilities, 32*(4), 981-993.

Young-Southward, G., Rydzewska, E., Philo, C., & Cooper, S. A. (2017). Physical and mental health of young people with and without intellectual disabilities: Cross-sectional analysis of a whole country population. *Journal of Intellectual Disability Research, 61*(10), 984-993.

Research question 2

Haydon-Laurelut, M., Edmonds, J., Daynes, S., Clare, A., Byles, R., & Barber, V. (2017). "Everyone thought I was a very very bad person... no one want to know you like the nurses and doctors": Using focus groups to elicit the views of adults with learning disability who use challenging behaviour services. *British Journal of Learning Disabilities*, 45(4), 253-258.

McKenzie, K., Whelan, K. J., Mayer, C., McNall, A., Noone, S., & Chaplin, J. (2018). "I feel like just a normal person now": An exploration of the perceptions of people with intellectual disabilities about what is important in the provision of positive behavioural support. *British Journal of Learning Disabilities*, 46(4), 241-249.

Neijmeijer, L., Kuiper, C., Kroon, H., & Didden, R. (2020). Experiences of service users with a mild intellectual disability or borderline intellectual functioning with Flexible Assertive Community Treatment: A qualitative study. *Journal of Applied Research in Intellectual Disabilities*, 33(5), 1005-1015.

Research question 3

Ali, A., McKenzie, E., Hassiotis, A., Priebe, S., Lloyd-Evans, B., Jones, R., ... & King, M. (2021). A pilot randomised controlled trial of befriending by volunteers in people with intellectual disability and depressive symptoms. *Journal of Intellectual Disability Research*, 65(11), 1010-1019.

Chan, J. S. L., & Chien, W. T. (2017). A randomised controlled trial on evaluation of the clinical efficacy of massage therapy in a multisensory environment for residents with severe and profound intellectual disabilities: a pilot study. *Journal of Intellectual Disability Research*, 61(6), 532-548.

Cooney, P., Jackman, C., Coyle, D., & O'Reilly, G. (2017). Computerised cognitive-behavioural therapy for adults with intellectual disability: randomised controlled trial. *The British Journal of Psychiatry*, 211(2), 95-102.

Hackett, S. S., Zubala, A., Aafjes-van Doorn, K., Chadwick, T., Harrison, T. L., Bourne, J., ... & Kaner, E. (2020). A randomised controlled feasibility study of interpersonal art psychotherapy for the treatment of aggression in people with intellectual disabilities in secure care. *Pilot and Feasibility Studies*, 6(1), 1-14.

Hassiotis, A., Poppe, M., Strydom, A., Vickerstaff, V., Hall, I. S., Crabtree, J., ... & Crawford, M. J. (2018). Clinical outcomes of staff training in positive behaviour support to reduce challenging behaviour in adults with intellectual disability: cluster randomised controlled trial. *The British Journal of Psychiatry*, 212(3), 161-168.

Jahoda, A., Hastings, R., Hatton, C., Cooper, S. A., Dagnan, D., Zhang, R., ... & Melville, C. (2017). Comparison of behavioural activation with guided self-help for treatment of

depression in adults with intellectual disabilities: a randomised controlled trial. *The Lancet Psychiatry*, 4(12), 909-919.

Roy, A., Roy, M., Deb, S., Unwin, G., & Roy, A. (2015). Are opioid antagonists effective in reducing self-injury in adults with intellectual disability? A systematic review. *Journal of Intellectual Disability Research*, 59(1), 55-67.