

# Best Evidence Summaries of Topics in Mental Healthcare

**BEST in MH** *clinical question-answering service*

## Question

How effective is exercise as an intervention for Self-Harm?

## Clarification of question using *PICO* structure

**Patients:** People who Self-Harm  
**Intervention:** Exercise  
**Comparator:** Any Other Intervention  
**Outcome:** All Patient Outcomes

**Clinical and research implications**

No relevant systematic reviews or randomised controlled trials could be found for this question.

**What does the evidence say?*****Number of included studies/reviews (number of participants)***

N/A

***Main findings***

N/A

***Authors conclusions***

N/A

***Reliability of conclusions/Strength of evidence***

N/A

**What do guidelines say?**

Neither National Institute for Health and Care Excellence (NICE) nor Scottish Intercollegiate Guidelines Network (SIGN) guidelines comment on...

**Date question received:** 07/10/2015

**Date searches conducted:** 20/10/2015

**Date answer completed:** 26/10/2015

## Search details

Source	Search Strategy	Number of hits	Relevant evidence identified
<b>Guidelines</b>			
NICE	Exercise, Self-harm	96	0
SIGN	Exercise, Self-harm	42	0
<b>Systematic Reviews</b>			
MEDLINE	1 exp Self Mutilation/ or exp Self-Injurious Behavior/ 2 self harm.ab,ti. 3 deliberate self harm.ab,ti. 4 DSH.ab,ti. 5 Self Mutilation.ab,ti. 6 1 or 2 or 3 or 4 or 5 7 exercise.ab,ti. 8 "run*".ab,ti. 9 "walk*".ab,ti. 10 "sport*".ab,ti. 11 "gym*".ab,ti. 12 "athlet*".ab,ti. 13 exp Sports/ 14 exp Circuit-Based Exercise/ or exp Exercise/ or exp Exercise Therapy/	57732 3067 935 811 1243 59650 193030 139523 80912 47828 7332 39911 139219 157038	38 0

	15 physical activity.ab,ti.	66915		
	16 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15	575474		
	17 6 and 16	621		
	18 (systematic\$ review\$ or meta-analytic\$ or metanalysis or metaanalysis or meta analysis or meta?synthesis or meta synthesis or meta?regression or meta regression).ab,ti.	126355		
	19 ((synthes\$ adj3 (literature or evidence)) or integrative review or data synthesis or research synthesis or narrative synthesis or systematic study or systematic studies or systematic comparison\$ or systematic overview\$ or evidence based review or comprehensive review or critical review or quantitative review or structured review or realist review or realist synthesis).ab,ti.	49273		
	20 exp Meta-Analysis/	61291		
	21 meta-analysis.ab,ti,pt.	89917		
	22 18 or 19 or 20 or 21	181062		
	23 (medline or pubmed or Cochrane or embase or cinahl or psyc?lit or psyc?info).ab.	110275		
	24 ((literature adj3 search\$) or (database\$ adj3 search\$) or (bibliographic adj3 search\$) or (electronic adj3 search\$) or (electronic adj3 database\$) or (computeri?ed adj3 search\$) or (internet adj3 search\$) or included studies or (inclusion adj3 studies) or inclusion criteria or selection criteria or predefined criteria or predetermined criteria).ab.	131137		
	25 ((assess\$ adj3 (quality or validity)) or (select\$ adj3 (study or studies)) or (data adj3 extract\$) or extracted data or (data adj2 abstracted) or (data adj3 abstraction) or published intervention\$ or ((study or studies) adj2 evaluat\$) or (intervention\$ adj2 evaluat\$) or confidence interval\$ or heterogeneity or pooled or pooling or odds ratio\$ or Jadad or coding).ab.	815140		

	26 23 or 24 or 25	934614		
	27 review.pt.	2066357		
	28 26 and 27	141813		
	29 26 and 27	141813		
	30 (review\$ adj4 (papers or trials or studies or evidence or intervention\$ or evaluation\$)).ab,ti.	119895		
	31 22 or 26 or 28 or 29	1012318		
	32 (letter or editorial or comment).pt.	1513354		
	33 31 not 32	1004542		
	34 Animals/	5629267		
	35 Humans/	14491458		
	36 34 not 35	4040452		
	37 33 not 36	914858		
	38 limit 37 to yr="2010 - 2015"	433443		
	39 17 and 38	38		
EMBASE	1 exp Self Mutilation/ or exp Self-Injurious Behavior/	12031	14	0
	2 self harm.ab,ti.	4066		
	3 deliberate self harm.ab,ti.	1262		
	4 DSH.ab,ti.	983		
	5 Self Mutilation.ab,ti.	1454		

	6 1 or 2 or 3 or 4 or 5	14809		
	7 exercise.ab,ti.	248397		
	8 "run*".ab,ti.	180707		
	9 "walk*".ab,ti.	107249		
	10 "sport*".ab,ti.	67064		
	11 "gym*".ab,ti.	9923		
	12 "athlet*".ab,ti.	48531		
	13 exp Sports/	115072		
	14 exp Circuit-Based Exercise/ or exp Exercise/ or exp Exercise Therapy/	273013		
	15 physical activity.ab,ti.	87705		
	16 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15	772112		
	17 6 and 16	320		
	18 (systematic\$ review\$ or systematic\$ literature review\$ or meta-analytic\$ or meta?analysis or metanalysis or meta analysis or meta?synthesis or meta synthesis or meta?regression or meta regression).ab,ti.	162684		
	((synthes\$ adj3 literature) or (synthes\$ adj3 evidence) or (synthes\$ adj2 qualitative) or integrative review or data synthesis or research synthesis or narrative synthesis or systematic study or systematic studies or systematic comparison\$ or systematic overview\$).ab,ti.	31347		
	((systematic adj2 search\$) or systematic\$ literature research\$ or (review adj3 scientific literature) or (literature review adj2 side effect\$) or (literature review adj2 adverse effect\$) or (literature review adj2 adverse event\$) or (evidence-based adj2 review) or (evidence-based adj2 review)).ab,ti.	18221		

	(comprehensive review or critical review or critical analysis or quantitative review or structured review or		
21	realist review or realist synthesis or (pooled adj2 analysis) or (pooled data adj6 (studies or trials)) or (medline and (inclusion adj3 criteria)) or (search adj (strateg\$ or term\$)).ab,ti.	75196	
22	exp "systematic review"/	97155	
23	meta analysis/ (Medline or pubmed or Cochrane or embase or cinahl or psyc?lit or psyc?info or lilacs or (literature adj3	100756	
24	search\$) or (database\$ adj3 search\$) or (bibliographic adj3 search\$) or (electronic adj3 search\$) or (electronic adj3 database\$) or (computeri?ed adj3 search\$) or (internet adj3 search\$)).ab. ((inclusion adj3 studies) or inclusion criteria or selection criteria or predefined criteria or predetermined	187330	
25	criteria or (assess\$ adj3 (quality or validity)) or (select\$ adj3 (study or studies)) or (data adj3 extract\$) or extracted data or (data adj2 abstracted)).ab. ((data adj3 abstraction) or published intervention\$ or ((study or studies) adj2 evaluat\$) or (intervention\$	227076	
26	adj2 evaluat\$) or confidence interval\$ or heterogeneity or pooled or pooling or odds ratio\$ or (Jadad or coding) or evidence-based).ab.	942598	
27	18 or 19 or 20 or 21 or 22 or 23	291071	
28	24 or 25 or 26	1219418	
29	review.pt.	2110277	
30	28 and 29	150450	
31	review.ti.	351150	
32	28 and 31	76383	
33	(review\$ adj10 (papers or trials or trial data or studies or evidence or intervention\$ or evaluation\$ or	345308	

	outcome\$ or findings)).ab,ti.			
	34 (retriev\$ adj10 (papers or trials or studies or evidence or intervention\$ or evaluation\$ or outcome\$ or findings)).ab,ti.	17165		
	35 27 or 30 or 32 or 33 or 34	623108		
	36 (letter or editorial).pt.	1408055		
	37 35 not 36	615003		
	38 exp animal/	20926108		
	39 nonhuman/	4636068		
	40 38 or 39	22189712		
	41 human/	16336382		
	42 40 not 41	5853330		
	43 37 not 42	587595		
	44 ("cochrane database of systematic reviews\$" or "the cochrane database of systematic reviews").jn.	12835		
	45 43 not 44	575887		
	46 conference abstract.pt.	2009399		
	47 45 not 46	505220		
	48 limit 47 to yr="2010 - 2015"	231088		
	49 17 and 48	14		
PsycINFO/CINAHL	1 exp Self Mutilation/ or exp Self-Injurious Behavior/	3444	4	0
	2 self harm.ab,ti.	3319		



	3 deliberate self harm.ab,ti.	895		
	4 DSH.ab,ti.	323		
	5 Self Mutilation.ab,ti.	809		
	6 1 or 2 or 3 or 4 or 5	6169		
	7 exercise.ab,ti.	31954		
	8 "run*".ab,ti.	26524		
	9 "walk*".ab,ti.	16955		
	10 "sport*".ab,ti.	22256		
	11 "gym*".ab,ti.	1500		
	12 "athlet*".ab,ti.	12990		
	13 exp Sports/	18002		
	14 exp Circuit-Based Exercise/ or exp Exercise/ or exp Exercise Therapy/	18228		
	15 physical activity.ab,ti.	20929		
	16 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15	116446		
	17 6 and 16	112		
	18 (Cochrane\$ or review or overview or (review adj2 literature) or (synthes\$ adj3 (literature\$ or research or studies or data))).ti.	107209		
	19 (meta analysis or literature review or systematic review).md.	111385		
	20 (pooled analys\$ or ((data adj2 pool\$) and studies) or ((hand or manual\$ or database\$ or computer\$ or electronic\$) adj2 search\$) or ((electronic\$ or bibliographic\$) adj2 (database\$ or data base\$))).ab,ti.	9102		

	21 exp Meta Analysis/	3481	
	22 18 or 19 or 20 or 21	192344	
	23 (comment reply or editorial or letter or review book or review media).dt.	225541	
	24 (electronic collection or dissertation abstract or encyclopedia).pt.	299575	
	25 (rat or rats or mouse or mice or hamster or hamsters or animal or animals or dog or dogs or cat or cats or bovine or sheep).ab,sh,ti.	204223	
	26 23 or 24 or 25	689929	
	27 22 not 26	120499	
	28 17 and 27	4	
<b>Primary Studies</b>			
MEDLINE	15. Medline; SELF DESTRUCTIVE BEHAVIOR/ OR SELF INJURIOUS BEHAVIOR/; 5269 results. 16. Medline; "self harm".ti,ab; 2981 results. 17. Medline; "self mutilation".ti,ab; 1226 results. 18. Medline; 15 OR 16 OR 17; 7896 results. 19. Medline; PHYSICAL ACTIVITY/ OR exp EXERCISE/; 134278 results. 20. Medline; WALKING/; 0 results. 21. Medline; RUNNING/; 14181 results. 22. Medline; exp SPORTS/; 143550 results. 23. Medline; 19 OR 20 OR 21 OR 22; 206758 results. 24. Medline; "non suicidal self injury".ti,ab; 261 results. 25. Medline; 18 OR 24; 7955 results. 26. Medline; exercise.ti,ab; 188654 results. 27. Medline; 23 OR 26; 319264 results. 28. Medline; 25 AND 27; 38 results. 29. Medline; WALKING/; 21973 results. 30. Medline; 23 OR 29; 206758 results.	9	0

	<p>31. Medline; 27 OR 29; 319264 results.  32. Medline; 25 AND 31; 38 results.  33. Medline; randomized.ab; 324885 results.  34. Medline; placebo.ab; 162553 results.  35. Medline; randomly.ab; 234748 results.  36. Medline; trial.ab; 327015 results.  37. Medline; groups.ab; 1466542 results.  38. Medline; "randomized controlled trial".pt; 397432 results.  39. Medline; "controlled clinical trial".pt; 0 results.  40. Medline; 33 OR 34 OR 35 OR 36 OR 37 OR 38 OR 39; 2128013 results.  41. Medline; 32 AND 40; 9 results.</p>		
EMBASE	<p>15. EMBASE; SELF DESTRUCTIVE BEHAVIOR/ OR SELF INJURIOUS BEHAVIOR/; 8558 results.  16. EMBASE; "self harm".ti,ab; 4053 results.  17. EMBASE; "self mutilation".ti,ab; 1369 results.  18. EMBASE; 15 OR 16 OR 17; 11674 results.  19. EMBASE; PHYSICAL ACTIVITY/ OR exp EXERCISE/; 308335 results.  20. EMBASE; WALKING/; 46075 results.  21. EMBASE; RUNNING/; 16857 results.  22. EMBASE; exp SPORTS/; 111446 results.  23. EMBASE; 19 OR 20 OR 21 OR 22; 421029 results.  24. EMBASE; "non suicidal self injury".ti,ab; 326 results.  25. EMBASE; 18 OR 24; 11794 results.  26. EMBASE; exercise.ti,ab; 239508 results.  27. EMBASE; 23 OR 26; 505260 results.  28. EMBASE; 25 AND 27; 166 results.  29. EMBASE; random*.ti,ab; 1019165 results.  30. EMBASE; factorial*.ti,ab; 26015 results.  31. EMBASE; (crossover* OR cross-over*).ti,ab; 76260 results.  32. EMBASE; placebo*.ti,ab; 222111 results.  33. EMBASE; (doubl* ADJ blind*).ti,ab; 155659 results.  34. EMBASE; (singl* ADJ blind*).ti,ab; 16470 results.</p>	13	

	<p>35. EMBASE; assign*.ti,ab; 270905 results.</p> <p>36. EMBASE; allocat*.ti,ab; 97201 results.</p> <p>37. EMBASE; volunteer*.ti,ab; 193623 results.</p> <p>38. EMBASE; CROSSOVER PROCEDURE/; 44751 results.</p> <p>39. EMBASE; DOUBLE BLIND PROCEDURE/; 124284 results.</p> <p>40. EMBASE; RANDOMIZED CONTROLLED TRIAL/; 386357 results.</p> <p>41. EMBASE; SINGLE BLIND PROCEDURE/; 21150 results.</p> <p>42. EMBASE; 29 OR 30 OR 31 OR 32 OR 33 OR 34 OR 35 OR 36 OR 37 OR 38 OR 39 OR 40 OR 41; 1600836 results.</p> <p>43. EMBASE; 28 AND 42; 13 results</p>		
PsycINFO/CINAHL	<p>1 exp Self Mutilation/ or exp Self-Injurious Behavior/ 3444</p> <p>2 self harm.ab,ti. 3319</p> <p>3 deliberate self harm.ab,ti. 895</p> <p>4 DSH.ab,ti. 323</p> <p>5 Self Mutilation.ab,ti. 809</p> <p>6 1 or 2 or 3 or 4 or 5 6169</p> <p>7 exercise.ab,ti. 31954</p> <p>8 "run*".ab,ti. 26524</p> <p>9 "walk*".ab,ti. 16955</p> <p>10 "sport*".ab,ti. 22256</p> <p>11 "gym*".ab,ti. 1500</p> <p>12 "athlet*".ab,ti. 12990</p> <p>13 exp Sports/ 18002</p> <p>14 exp Circuit-Based Exercise/ or exp Exercise/ or exp Exercise Therapy/ 18228</p>	2	0

	15 physical activity.ab,ti.	20929		
	16 7 or 8 or 9 or 10 or 11 or 12 or 13 or 14 or 15	116446		
	17 6 and 16	112		
	18 (random\$ or placebo\$ or single blind\$ or double blind\$ or triple blind\$).ti,ab.	147019		
	19 (animals not humans).sh.	3303		
	20 exp Clinical Trials/	9083		
	21 random*.mp.	131073		
	22 20 not 21	3908		
	23 18 not (19 or 22)	146457		
	24 17 and 23	2		
CENTRAL	#1 MeSH descriptor: [Self-Injurious Behavior] explode all trees	768	29	0
	#2 MeSH descriptor: [Self Mutilation] explode all trees	25		
	#3 self harm	1649		
	#4 deliberate self harm	143		
	#5 DSH	35		
	#6 #1 or #2 or #3 or #4 or #5	2314		
	#7 EXERCISE	47426		
	#8 RUN*	14481		
	#9 WALK*	16948		
	#10 SPORT*	13910		
	#11 GYM*	606		
	#12 ATHLET*	4054		
	#13 MeSH descriptor: [Exercise] explode all trees	14416		
	#14 MeSH descriptor: [Sports] explode all trees	10284		
	#15 PHYSICAL ACTIVITY	17039		

	#16	#7 or #8 or #9 or #10 or #11 or #12 or #13 or #14 or #15	81877		
	#17	#6 and #16	933		
	TRIALS		29		

### Disclaimer

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