# Web Appendices:

# Interventions to reduce the impact of unemployment and economic hardship on mental health in the general population: A systematic review.

# Appendix 1 Search strategies

Search updated 16 January 2016 All databases.

Medline/Premedline= 59

Embase= 69

Cochrane = 15

Web of science = 85

Psychinfo=34

Total = 262

Total de-duplicated =184

**Unique references = 127 (not previously seen)**

## MEDLINE

Date May 27 2015

Database: Medline In-process - Current week, Medline 1950 to present

Search Strategy:

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1 mental health/ or mental disorders/ or anxiety disorders/ or panic disorder/ or exp stress disorders, traumatic/ or mood disorders/ or exp depressive disorder/ or exp sleep disorders/ (328818)

2 (depression or depressed or depressive or suicid$ or self-harm$ or selfharm$ or self-poison$ or self-mutilat$ or self-inflict$ or self-injur$ or binge drink$).ti,ab. (363816)

3 (mental adj3 (health or illness$ or disorder$ or instab$ or problem$)).ti,ab. (122468)

4 (psych$ adj3 (distress or stress)).ti,ab. (25946)

5 ((high or severe) adj3 (worry or worrie$ or anxious or anxiety)).ti,ab. (5331)

6 (nervous breakdown$ or overdos$).ti,ab. (15852)

7 self-injurious behavior/ or self mutilation/ or suicide/ or suicidal ideation/ or suicide, attempted/ (51232)

8 stress, psychological/ (91178)

9 or/1-8 (750078)

10 exp \*"schizophrenia and disorders with psychotic features"/ (96461)

11 (psychos$ or psychotic or schizophren$).ti. (111744)

12 or/10-11 (137974)

13 9 not 12 (717200)

14 Economic Recession/ (1417)

15 (economic adj3 (crisis or crises or difficulties or downturn$ or austerity or insecurity)).ti,ab. (2057)

16 (economic adj2 recession$).ti,ab. or recession$.ti. (2574)

17 (debt$ or indebted$).ti,ab. (3839)

18 austerity measur$.ti,ab. (67)

19 exp social security/ (7453)

20 public assistance/ (2563)

21 ((welfare or benefit$) adj3 ("cap" or cut or cuts or cutting)).ti,ab. (254)

22 ((welfare or benefit$ or social security) adj2 system$ adj2 reform$).ti,ab. (13)

23 ((welfare or social security) adj3 (advice or spend$ or benefit$)).ti,ab. (1029)

24 bankruptcy/ (812)

25 (bankrupt$ or arrears or repossess$ or bailiff$ or loan shark$).ti,ab. (601)

26 (business adj2 failure).ti,ab. (15)

27 unemployment/ (5409)

28 (unemployment or redundancy).ti,ab. (17869)

29 (workforce adj2 participat$).ti,ab. (160)

30 (job search or job seeking or job finding).ti,ab. (335)

31 ((active labo?r or employment or welfare or job creation) adj2 program$).ti,ab. (948)

32 (job$ adj3 (security or insecurity or loss$ or lose or lost)).ti,ab. (1793)

33 financing, personal/ (4602)

34 (credit adj2 (counsel$ or advice or union or unions or crunch)).ti,ab. (68)

35 (financial$ adj2 (crisis or crises or strain or stress or loss or distress$ or well-being or circumstances)).ti,ab. (2162)

36 (repayment$ adj2 flexib$).ti,ab. (1)

37 ((financ$ or money or mortgage$) adj3 (advice or help or counsel$ or hardship or difficult$ or problem$ or worries or worry)).ti,ab. (3574)

38 or/14-37 (52324)

39 13 and 38 (6615)

40 letter/ (880187)

41 editorial/ (378387)

42 news/ (168782)

43 exp historical article/ (334172)

44 Anecdotes as topic/ (4628)

45 comment/ (628318)

46 case report/ (1734733)

47 (letter or comment$).ti. (103149)

48 or/40-47 (3485120)

49 randomized controlled trial/ or Randomized Controlled Trials as Topic/ or random$.ti,ab. (920237)

50 48 not 49 (3453066)

51 animals/ not humans/ (3949562)

52 exp Animals, Laboratory/ (746690)

53 exp Animal Experimentation/ (6640)

54 exp Models, Animal/ (438108)

55 exp rodentia/ (2741332)

56 (rat or rats or mouse or mice).ti. (1143677)

57 or/50-56 (8032183)

58 39 not 57 (6150)

59 meta-analysis/ (56058)

60 meta-analysis as topic/ (14260)

61 (meta analy$ or metaanaly$ or metanaly$ or meta regression).ti,ab. (77910)

62 ((systematic$ or evidence$) adj2 (review$ or overview$)).ti,ab. (89435)

63 (reference list$ or bibliograph$ or hand search$ or manual search$ or relevant journals).ab. (28165)

64 (search strategy or search criteria or systematic search or study selection or data extraction).ab. (30177)

65 (search$ adj4 literature).ab. (32372)

66 (medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or cinahl or science citation index or bids or cancerlit).ab. (101195)

67 cochrane.jw. (11498)

68 ((multiple treatment$ or indirect or mixed) adj2 comparison).ti,ab. (1037)

69 or/59-68 (228253)

70 randomized controlled trial.pt. or randomized controlled trial/ or Randomized Controlled Trials as Topic/ (488352)

71 controlled clinical trial.pt. (89548)

72 randomi$.ti,ab. (419407)

73 placebo.ab. (162757)

74 randomly.ab. (231245)

75 clinical trials as topic.sh. (173005)

76 trial.ti. (138860)

77 or/70-76 (1032908)

78 69 or 77 (1191819)

79 58 and 78 (459)

## EMBASE

Database: Embase <1974 to 2015 May 27>

Search Strategy:

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1 exp \*mental health/ or \*anxiety disorder/ or \*generalized anxiety disorder/ or \*"mixed anxiety and depression"/ or \*panic/ or \*mood disorder/ or \*mental disease/ or \*depression/ or \*major depression/ or \*sleep disorder/ or exp \*insomnia/ (303739)

2 (depression or depressed or depressive or suicid$ or self-harm$ or selfharm$ or self-poison$ or self-mutilat$ or self-inflict$ or self-injur$ or binge drink$).ti,ab. (469744)

3 (mental adj3 (health or illness$ or disorder$ or instab$ or problem$)).ti,ab. (157503)

4 (psych$ adj3 (distress or stress)).ti,ab. (33952)

5 ((high or severe) adj3 (worry or worrie$ or anxious or anxiety)).ti,ab. (7504)

6 (overdos$ or nervous breakdown$).ti,ab. (21714)

7 exp \*suicidal behavior/ or \*automutilation/ (45200)

8 \*posttraumatic stress disorder/ or \*stress/ (68613)

9 or/1-8 (813421)

10 exp \*psychosis/ (151812)

11 (psychos$ or psychotic or schizophren$).ti. (143193)

12 or/10-11 (192364)

13 9 not 12 (769577)

14 Economic Recession/ (1670)

15 (economic adj3 (crisis or crises or difficulties or downturn$ or austerity or insecurity)).ti,ab. (2353)

16 (economic adj2 recession$).ti,ab. or recession$.ti. (2626)

17 (debt$ or indebted$).ti,ab. (4516)

18 austerity measur$.ti,ab. (89)

19 \*social security/ (5314)

20 social insurance/ (2163)

21 ((welfare or benefit$) adj3 ("cap" or cut or cuts or cutting)).ti,ab. (310)

22 ((welfare or benefit$ or social security) adj2 system$ adj2 reform$).ti,ab. (20)

23 ((welfare or social security) adj3 (advice or spend$ or benefit$)).ti,ab. (1197)

24 financial deficit/ (440)

25 (bankrupt$ or arrears or repossess$ or bailiff$ or loan shark$).ti,ab. (730)

26 (business adj2 failure).ti,ab. (16)

27 \*unemployment/ (3136)

28 (unemployment or redundancy).ti,ab. (19918)

29 (workforce adj2 participat$).ti,ab. (182)

30 (job search or job seeking or job finding).ti,ab. (413)

31 ((active labo?r or employment or welfare or job creation) adj2 program$).ti,ab. (1016)

32 (job$ adj3 (security or insecurity or loss$ or lose or lost)).ti,ab. (2122)

33 \*unemployment insurance/ (11)

34 (credit adj2 (counsel$ or advice or union or unions or crunch)).ti,ab. (73)

35 (financial$ adj2 (crisis or crises or strain or stress or loss or distress$ or well-being or circumstances)).ti,ab. (2747)

36 (repayment$ adj2 flexib$).ti,ab. (1)

37 ((financ$ or money or mortgage$) adj3 (advice or help or counsel$ or hardship or difficult$ or problem$ or worries or worry)).ti,ab. (4791)

38 or/14-37 (49961)

39 13 and 38 (6156)

40 letter.pt. or letter/ (891563)

41 note.pt. (600253)

42 editorial.pt. (477966)

43 case report/ or case study/ (2035511)

44 (letter or comment$).ti. (157627)

45 or/40-44 (3846775)

46 randomized controlled trial/ or "randomized controlled trial (topic)"/ or random$.ti,ab. (1109908)

47 45 not 46 (3806373)

48 exp animal/ not human/ (4502767)

49 nonhuman/ (4518135)

50 exp experimental animal/ (459494)

51 exp animal experiment/ (1853611)

52 exp animal model/ (833684)

53 exp rodent/ (3031877)

54 (rat or rats or mouse or mice).ti. (1320340)

55 or/47-54 (10667527)

56 39 not 55 (5819)

57 meta analysis/ or "meta analysis (topic)"/ or "systematic review"/ or "systematic review (topic)"/ (168626)

58 (meta analy$ or metaanaly$ or metanaly$ or meta regression).ti,ab. (100577)

59 ((systematic$ or evidence$) adj2 (review$ or overview$)).ti,ab. (109393)

60 (reference list$ or bibliograph$ or hand search$ or manual search$ or relevant journals).ab. (33377)

61 (search strategy or search criteria or systematic search or study selection or data extraction).ab. (34433)

62 (search$ adj4 literature).ab. (40640)

63 (medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or cinahl or science citation index or bids or cancerlit).ab. (125185)

64 cochrane.jw. (12430)

65 ((multiple treatment$ or indirect or mixed) adj2 comparison).ti,ab. (1806)

66 or/57-65 (320412)

67 randomized controlled trial/ or "randomized controlled trial (topic)"/ (446107)

68 "double blind procedure"/ (122964)

69 "single-blind procedure"/ (20244)

70 random$.ti,ab. (985257)

71 factorial$.ti,ab. (25559)

72 ((doubl$ or singl$) adj blind$).ti,ab. (171714)

73 (assign$ or allocat$ or volunteer$ or placebo$).ti,ab. (719347)

74 or/67-73 (1582812)

75 66 or 74 (1797494)

76 56 and 75 (703)

The Cochrane Library

ID Search Hits

#1 MeSH descriptor: [Mental Health] this term only 701

#2 MeSH descriptor: [Mental Disorders] this term only 2349

#3 MeSH descriptor: [Anxiety Disorders] this term only 2029

#4 MeSH descriptor: [Panic Disorder] this term only 758

#5 MeSH descriptor: [Stress Disorders, Traumatic] explode all trees 1050

#6 MeSH descriptor: [Mood Disorders] this term only 462

#7 MeSH descriptor: [Depressive Disorder] explode all trees 7716

#8 MeSH descriptor: [Sleep Disorders] explode all trees 4531

#9 MeSH descriptor: [Stress, Psychological] explode all trees 3771

#10 MeSH descriptor: [Self-Injurious Behavior] explode all trees 766

#11 (depression or depressed or depressive or suicid\* or selfharm\* or self-harm or self-poison\* or self-mutilat\* or self-inflict\* or self-injur\* or overdos\*):ti,ab 37809

#12 (binge next/2 drink\*):ti,ab 249

#13 (mental near/3 (health or illness\* or disorder\* or instab\* or problem\*)):ti,ab 7045

#14 (psych\* near/3 (distress or stress)):ti,ab 2165

#15 ((high or severe) near/3 (worry or worrie\* or anxious or anxiety)):ti,ab 661

#16 #1 or #2 or #3 or #4 or #5 or #6 or #7 or #8 or #9 or #10 or #11 or #12 or #13 or #14 or #15 55189

#17 (psychos\* or psychotic or schizophren\*):ti 10805

#18 #16 not #17 52974

#19 MeSH descriptor: [Economic Recession] this term only 3

#20 (economic near/3 (crisis or crises or recession\* or difficulties or downturn\* or austerity or insecurity)):ti,ab 18

#21 recession:ti 159

#22 (debt\* or indebted\*):ti,ab 81

#23 (austerity next/2 measur\*):ti,ab 0

#24 MeSH descriptor: [Social Security] explode all trees 38

#25 MeSH descriptor: [Public Assistance] this term only 49

#26 MeSH descriptor: [Bankruptcy] explode all trees 0

#27 MeSH descriptor: [Unemployment] this term only 65

#28 MeSH descriptor: [Financing, Personal] this term only 78

#29 ((welfare or benefit\*) near/3 ("cap" or cut or cuts or cutting)):ti,ab 18

#30 ((welfare or benefit\* or "social security") near/3 reform\*):ti,ab 25

#31 ((welfare or "social security") near/3 (advice or spend\* or benefit\*)) 63

#32 (bankrupt\* or arrears or repossess\* or bailiff\*):ti,ab 5

#33 (business\* near/2 fail\*):ti,ab 0

#34 (unemployment or redundancy or "job search" or "job seeking" or "job finding"):ti,ab 316

#35 (workforce near/2 participat\*):ti,ab 5

#36 (("active labour" or "active labor" or employment or welfare or "job creation") near/2 program\*):ti,ab 50

#37 (job\* near/3 (security or insecurity or loss\* or lose\* or losing or lost\*)):ti,ab 52

#38 (credit near/2 (crunch or union or unions or advice or counsel\*)):ti,ab 0

#39 (financial near/2 (crisis or crises or strain or stress or loss or distress\* or well-being or circumstances)) 77

#40 ((financ\* or money or mortgage\*) near/3 (advice or help\* or counsel\* or hardship or difficult\* or problem\* or worries or worry)):ti,ab 85

#41 #19 or #20 or #21 or #22 or #23 or #24 or #25 or #26 or #27 or #28 or #29 or #30 or #31 or #32 or #33 or #34 or #35 or #36 or #37 or #38 or #39 or #40 1078

#42 #18 and #41 221

## PsycINFO

Database: PsycINFO <1806 to May Week 3 2015>

Search Strategy:

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1 Mental Health/ or mental health programs/ or exp Mental Disorders/ or anxiety/ or anxiety disorders/ or acute stress disorder/ or generalized anxiety disorder/ or posttraumatic stress disorder/ or major depression/ or "depression (emotion)"/ or sleep disorders/ or insomnia/ or panic disorder/ or anxiety sensitivity/ or panic/ or panic attack/ (559854)

2 (depression or depressed or depressive or suicid$ or self-harm$ or selfharm$ or self-poison$ or self-mutilat$ or self-inflict$ or self-injur$ or binge drink$).ti,ab. (261249)

3 (mental adj3 (health or illness$ or disorder$ or instab$ or problem$)).ti,ab. (180610)

4 (psych$ adj3 (distress or stress)).ti,ab. (24750)

5 ((high or severe) adj3 (worry or worrie$ or anxious or anxiety)).ti,ab. (6980)

6 (overdos$ or nervous breakdown$).ti,ab. (2988)

7 exp self destructive behavior/ or suicide prevention/ or suicide prevention centers/ (33669)

8 psychological stress/ (7779)

9 or/1-8 (746158)

10 exp \*psychosis/ (87557)

11 (psychos$ or psychotic or schizophren$).ti. (98652)

12 or/10-11 (119349)

13 9 not 12 (646675)

14 economic security/ or job security/ (1215)

15 (economic adj3 (crisis or crises or difficulties or downturn$ or austerity or insecurity)).ti,ab. (1863)

16 (economic adj2 recession$).ti,ab. or recession$.ti. (614)

17 (debt$ or indebted$).ti,ab. (2806)

18 austerity measur$.ti,ab. (66)

19 social security/ (771)

20 "welfare services (government)"/ or welfare reform/ (3280)

21 ((welfare or benefit$) adj3 ("cap" or cut or cuts or cutting)).ti,ab. (84)

22 ((welfare or benefit$ or social security) adj2 system$ adj2 reform$).ti,ab. (14)

23 ((welfare or social security) adj3 (advice or spend$ or benefit$)).ti,ab. (685)

24 financial strain/ (1886)

25 (bankrupt$ or arrears or repossess$ or bailiff$ or loan shark$).ti,ab. (577)

26 (business adj2 failure).ti,ab. (67)

27 unemployment/ (3413)

28 (unemployment or redundancy).ti,ab. (9985)

29 (workforce adj2 participat$).ti,ab. (125)

30 (job search or job seeking or job finding).ti,ab. (1225)

31 ((active labo?r or employment or welfare or job creation) adj2 program$).ti,ab. (1339)

32 (job$ adj3 (security or insecurity or loss$ or lose or lost)).ti,ab. (2765)

33 job search/ or personnel termination/ or reemployment/ (2812)

34 (credit adj2 (counsel$ or advice or union or unions or crunch)).ti,ab. (99)

35 (financial$ adj2 (crisis or crises or strain or stress or loss or distress$ or well-being or circumstances)).ti,ab. (2399)

36 (repayment$ adj2 flexib$).ti,ab. (0)

37 ((financ$ or money or mortgage$) adj3 (advice or help or counsel$ or hardship or difficult$ or problem$ or worries or worry)).ti,ab. (2773)

38 or/14-37 (31580)

39 13 and 38 (6550)

40 (authored book or book or edited book).pt. (410549)

41 scientific communication/ (21988)

42 case report/ (22552)

43 (letter or comment$).ti. (33941)

44 40 or 41 or 42 or 43 (483546)

45 (random$ or trial$ or cross-over or crossover or meta-analys$ or systematic review).ti,ab. (254580)

46 44 not 45 (472524)

47 exp animals/ or animal models/ (291418)

48 (rat or rats or mouse or mice).ti. (96489)

49 or/46-48 (759135)

50 39 not 49 (5943)

51 meta analysis/ (3659)

52 (meta analy$ or metaanaly$ or metanaly$ or meta regression).ti,ab. (21055)

53 ((systematic$ or evidence$) adj2 (review$ or overview$)).ti,ab. (23169)

54 (reference list$ or bibliograph$ or hand search$ or manual search$ or relevant journals).ab. (17953)

55 (search strategy or search criteria or systematic search or study selection or data extraction).ab. (3289)

56 (search$ adj4 literature).ab. (6144)

57 (medline or pubmed or cochrane or embase or psychlit or psyclit or psychinfo or cinahl or science citation index or bids or cancerlit).ab. (13474)

58 cochrane.jw. (0)

59 ((multiple treatment$ or indirect or mixed) adj2 comparison).ti,ab. (124)

60 clinical trials/ (8681)

61 randomi#ed.ab. (48659)

62 random$.ti,ab. (141625)

63 placebo.ab. (31826)

64 randomly.ab. (54584)

65 trial.ti. (19473)

66 or/51-65 (227069)

67 50 and 66 (453)

## Web of Science

27 May 2015

|  |  |  |
| --- | --- | --- |
| # 25 | [**553**](http://apps.webofknowledge.com/summary.do?product=WOS&doc=1&qid=50&SID=W2LAXHlPlAReE4Otyrr&search_mode=CombineSearches&update_back2search_link_param=yes) | #24 AND #21  *Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH Timespan=All years* |
| # 24 | [**1,046,905**](http://apps.webofknowledge.com/summary.do?product=WOS&doc=1&qid=49&SID=W2LAXHlPlAReE4Otyrr&search_mode=CombineSearches&update_back2search_link_param=yes) | #23 OR #22  *Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH Timespan=All years* |
| # 23 | [**835,895**](http://apps.webofknowledge.com/summary.do?product=WOS&doc=1&qid=48&SID=W2LAXHlPlAReE4Otyrr&search_mode=AdvancedSearch&update_back2search_link_param=yes) | TS= (randomi\* or factorial\* or placebo\* or (doubl\* near/2 blind\*) or (trebl\* near/2 blind\*) or (tripl\* near/2 blind\*) or (singl\* near/2 blind\*) or (controlled near/2 trial\*))  *Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH Timespan=All years* |
| # 22 | [**294,292**](http://apps.webofknowledge.com/summary.do?product=WOS&doc=1&qid=47&SID=W2LAXHlPlAReE4Otyrr&search_mode=AdvancedSearch&update_back2search_link_param=yes) | TS= (metaanalys\* or meta-analys\* or "meta regression" or metanalys\* or (systematic near/2 review\*) or (systematic near/2 overview\*) or (evidence\* near/2 review\*) or (evidence\* near/2 overview\*) or (search\* near/4 literature\*) or (hand near/2 search\*) or (manual\* near/2 search\*) or (search near/2 strateg\*) or (systematic\* near/2 search\*) or "study selection" or "data extraction" or "search criteria" or (indirect near/2 comparison) or (mixed near/2 comparison) or ("multiple treatment" near/2 comparison) or ("multiple treatments" near/2 comparison))  *Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH Timespan=All years* |
| # 21 | [**7,577**](http://apps.webofknowledge.com/summary.do?product=WOS&doc=1&qid=46&SID=W2LAXHlPlAReE4Otyrr&search_mode=AdvancedSearch&update_back2search_link_param=yes) | #17 NOT #20  *Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH Timespan=All years* |
| # 20 | [**2,257,999**](http://apps.webofknowledge.com/summary.do?product=WOS&doc=1&qid=45&SID=W2LAXHlPlAReE4Otyrr&search_mode=CombineSearches&update_back2search_link_param=yes) | #19 OR #18  *Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH Timespan=All years* |
| # 19 | [**2,101,908**](http://apps.webofknowledge.com/summary.do?product=WOS&doc=1&qid=44&SID=W2LAXHlPlAReE4Otyrr&search_mode=AdvancedSearch&update_back2search_link_param=yes) | TI= (rat or rats or mouse or mice or rodent\* or comment\* or letter or "case study" or "case report" or anecdote\* or editorial\* or news )  *Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH Timespan=All years* |
| # 18 | [**200,663**](http://apps.webofknowledge.com/summary.do?product=WOS&doc=1&qid=43&SID=W2LAXHlPlAReE4Otyrr&search_mode=AdvancedSearch&update_back2search_link_param=yes) | TS= ((animal\* near/2 experiment\*) or (animal\* near/2 model\*) or (animal\* near/2 laborator\*))  *Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH Timespan=All years* |
| # 17 | [**7,639**](http://apps.webofknowledge.com/summary.do?product=WOS&doc=1&qid=40&SID=W2LAXHlPlAReE4Otyrr&search_mode=CombineSearches&update_back2search_link_param=yes) | #16 AND #6  *Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH Timespan=All years* |
| # 16 | [**168,481**](http://apps.webofknowledge.com/summary.do?product=WOS&doc=1&qid=37&SID=W2LAXHlPlAReE4Otyrr&search_mode=CombineSearches&update_back2search_link_param=yes) | #15 OR #14 OR #13 OR #12 OR #11 OR #10 OR #9 OR #8 OR #7  *Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH Timespan=All years* |
| # 15 | [**7,330**](http://apps.webofknowledge.com/summary.do?product=WOS&doc=1&qid=36&SID=W2LAXHlPlAReE4Otyrr&search_mode=AdvancedSearch&update_back2search_link_param=yes) | TS= ((financ\* near/2 advice) or ( financ\* near/2 help) or (financ\* near/2 counsel\*) or (financ\* near/2 hardship) or ( financ\* near/2 difficult\*) or (financ\* near/2 problem\*) or (financ\* near/2 worr\*) or (money near/2 advice) or ( money near/2 help) or (money near/2 counsel\*) or ( money near/2 difficult\*) or (money near/2 problem\*) or (money near/2 worr\*) or (mortgage\* near/2 advice) or ( mortgage\* near/2 help) or (mortgage\* near/2 counsel\*) or ( mortgage\* near/2 difficult\*) or (mortgage\* near/2 problem\*) or( mortgage\* near/2 worr\*))  *Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH Timespan=All years* |
| # 14 | [**16,890**](http://apps.webofknowledge.com/summary.do?product=WOS&doc=1&qid=35&SID=W2LAXHlPlAReE4Otyrr&search_mode=AdvancedSearch&update_back2search_link_param=yes) | TS= ((credit near/2 counsel\*) or (credit near/2 advice) or (credit near/2 crunch) or ( financ\* near/2 crisis) or (financ\* near/2 crises) or (financ\* near/2 strain) or (financ\* near/2 stress) or (financ\* near/2 loss\*) or (financ\* near/2 well-being) or (financ\* near/2 circumstances) or (repayment near/2 flexibl\*))  *Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH Timespan=All years* |
| # 13 | [**9,041**](http://apps.webofknowledge.com/summary.do?product=WOS&doc=1&qid=34&SID=W2LAXHlPlAReE4Otyrr&search_mode=AdvancedSearch&update_back2search_link_param=yes) | TS=((business near/2 failure\*) or (workforce near/2 participat\*) or (labo?r near/2 program\*) or (employment near/2 program\*) or (welfare near/2 program\*) or ( "job creation" near/2 program\*) or (job\* near/2 security) or (job\* near/2 insecurity) or (job\* near/2 loss) or (job\* near/2 lose\*) or (job\* near/2 losing) or (job\* near/2 lost))  *Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH Timespan=All years* |
| # 12 | [**24,119**](http://apps.webofknowledge.com/summary.do?product=WOS&doc=1&qid=33&SID=W2LAXHlPlAReE4Otyrr&search_mode=AdvancedSearch&update_back2search_link_param=yes) | TS= ((welfare near/3 system\*) or (welfare near/3 reform\*) or (welfare near/3 advice) or (welfare near/3 spend\*) or (welfare near/3 benefit\*) or (benefit\* near/3 system\*) or ( benefit\* near/3 reform\*) or ("social security" near/3 system\*) or ("socal security" near/3 reform\*) or ("social security" near/3 advice) or ("social security" near/3 spend\*) or ("social security" near/3 benefit\*))  *Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH Timespan=All years* |
| # 11 | [**694**](http://apps.webofknowledge.com/summary.do?product=WOS&doc=1&qid=32&SID=W2LAXHlPlAReE4Otyrr&search_mode=AdvancedSearch&update_back2search_link_param=yes) | TS= ((welfare near/3 cut\*) or (benefit near/3 cut\*))  *Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH Timespan=All years* |
| # 10 | [**318**](http://apps.webofknowledge.com/summary.do?product=WOS&doc=1&qid=30&SID=W2LAXHlPlAReE4Otyrr&search_mode=AdvancedSearch&update_back2search_link_param=yes) | TS = ((austerity near/2 measur\*) or (welfare near/3 "cap") or ( benefit near/3 "cap"))  *Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH Timespan=All years* |
| # 9 | [**103,466**](http://apps.webofknowledge.com/summary.do?product=WOS&doc=1&qid=29&SID=W2LAXHlPlAReE4Otyrr&search_mode=AdvancedSearch&update_back2search_link_param=yes) | TS= (debt\* or indebted\* or bankrupt\* or arrears or repossess\* or bailiff\* or unemployment or redundancy or "job search" or "job seeking" or "job finding")  *Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH Timespan=All years* |
| # 8 | [**13,015**](http://apps.webofknowledge.com/summary.do?product=WOS&doc=1&qid=28&SID=W2LAXHlPlAReE4Otyrr&search_mode=AdvancedSearch&update_back2search_link_param=yes) | TS= ((economic near/3 recession) or (economic near/3 crisis) or (economic near/3 crises) or (economic near/3 difficult\*) or ( economic near/3 downturn\*) or ( economic near/3 austerity) or (economic near/3 insecurity))  *Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH Timespan=All years* |
| # 7 | [**4,856**](http://apps.webofknowledge.com/summary.do?product=WOS&doc=1&qid=27&SID=W2LAXHlPlAReE4Otyrr&search_mode=AdvancedSearch&update_back2search_link_param=yes) | TI= recession  *Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH Timespan=All years* |
| # 6 | [**611,273**](http://apps.webofknowledge.com/summary.do?product=WOS&doc=1&qid=26&SID=W2LAXHlPlAReE4Otyrr&search_mode=AdvancedSearch&update_back2search_link_param=yes) | #4 not #5  *Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH Timespan=All years* |
| # 5 | [**152,627**](http://apps.webofknowledge.com/summary.do?product=WOS&doc=1&qid=24&SID=W2LAXHlPlAReE4Otyrr&search_mode=AdvancedSearch&update_back2search_link_param=yes) | TI= (psychos\* or psychotic or schizophren\*)  *Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH Timespan=All years* |
| # 4 | [**636,600**](http://apps.webofknowledge.com/summary.do?product=WOS&doc=1&qid=22&SID=W2LAXHlPlAReE4Otyrr&search_mode=CombineSearches&update_back2search_link_param=yes) | #3 OR #2 OR #1  *Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH Timespan=All years* |
| # 3 | [**55,779**](http://apps.webofknowledge.com/summary.do?product=WOS&doc=1&qid=21&SID=W2LAXHlPlAReE4Otyrr&search_mode=AdvancedSearch&update_back2search_link_param=yes) | TS= ((psych\* near/3 stress) or (psych\* near/3 distress) or (high\* near/3 worr\*) or ( severe near/3 worr\*) or (high\* near/3 anxi\*) or (severe near/3 anxi\*) or (nervous near/3 breakdown\*))  *Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH Timespan=All years* |
| # 2 | [**168,882**](http://apps.webofknowledge.com/summary.do?product=WOS&doc=1&qid=19&SID=W2LAXHlPlAReE4Otyrr&search_mode=AdvancedSearch&update_back2search_link_param=yes) | TS=( (binge near/2 drink\*) or (mental near/3 health) or ( mental near/3 illness\*) or (mental near/3 disorder\*) or (mental near/3 instab\*) or (mental near/3 problem\*))  *Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH Timespan=All years* |
| # 1 | [**484,640**](http://apps.webofknowledge.com/summary.do?product=WOS&doc=1&qid=18&SID=W2LAXHlPlAReE4Otyrr&search_mode=AdvancedSearch&update_back2search_link_param=yes) | TS= (depression or depressed or depressive or suicid\* or self-harm\* or selfharm\* or self-poison\* or self-mutilat\* or self-inflict\* or self-injur\* or overdos\*)  *Indexes=SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH Timespan=All years* |

**SEARCH PROTOCOL:**

**Interventions to mitigate the effects of economic hardship on mental health UPDATE SEARCH JAN 16**

|  |  |
| --- | --- |
| **Component** | **Description** |
| Review area | **Economic hardship ( especially debt, unemployment, loss of welfare benefits) on mental health** |
| Objectives | To identify trials of any interventions aimed at mitigating the effects of economic hardship on mental health |
| Populations/aspect | People with or without pre-existing mental health conditions exposed to aspects of economic hardship such as debt, bankruptcy, job loss etc |
| Interventions | Interventions to improve the aspect and / or the person’s ability to deal with it |
| outcomes | Suicide reductions, mental health stability or improvement in mental health |
| Comparisons/ aspects covered by search | No comparator |
| Study design | SRs , RCTs |
| Exclusions | Animal studies /editorials/anecdotes/case reports/letters |
| How the information was searched | Databases: Medline, Premedline, Pubmed, Embase, Cochrane Library, Web of science, Psychinfo  Language: all  date parameters: May15 to Jan 16  otherwise the same strategy as search 2 |
| Search terms and date searched | Mental health conditions or effects e.g depression, suicide, anxiety( but not psychoses) AND economic recession OR financial hardship OR targeted interventions eg debt advice LESS exclusions AND (SRs or RCTs)  Searched 24/1/16 |
| Search results | Medline/Premedline= 59  Embase= 69  Cochrane = 15  Web of science = 85  Psychinfo=34  Total = 262  Total de-duplicated =184  Unique references = 127 ( not previously seen) |

# Appendix 2 List of included studies

**Job Club type interventions:**

**JOBS I**

1. Caplan RD, Vinokur AD, Price RH, van Ryn M. Job seeking, reemployment, and mental health: a randomized field experiment in coping with job loss. *J Appl Psychol* 1989;**74**:759-69.

2. Price RH, Van Ryn M, Vinokur AD. Impact of a preventive job search intervention on the likelihood of depression among the unemployed. *J Health Soc Behav* 1992;**33**:158-67.

3. Vanryn M, Vinokur AD. How did it work – an examination of the mechanisms through which an intervention for the unemployed promoted job-search behavior. *Am J Community Psychol* 1992;**20**:577-97.

4 Vinokur AD, Price RH, Caplan RD. From Field Experiments to Program Implementation: Assessing the Potential Outcomes of an Experimental Intervention Program for Unemployed Persons. *Am J Community Psychol* 1991;**71**:166-79.

5. Vinokur AD, Price RH, Caplan RD, van Ryn M, Curran J. The Jobs I preventive intervention for unemployed individuals: Short- and long-term effects on reemployment and mental health. In: *Job stress interventions*Washington, DC: American Psychological Association; US; 1995:125-38.

6. Vinokur AD, van Ryn M, Gramlich EM, Price RH. Long-term follow-up and benefit-cost analysis of the Jobs Program: a preventive intervention for the unemployed. *J Appl Psychol* 1991;**76**:213-9.

**JOBS II**

7. Vinokur AD, Price RH, Caplan RD. Hard times and hurtful partners: how financial strain affects depression and relationship satisfaction of unemployed persons and their spouses. *J Pers Soc Psychol* 1996;**71**:166-79.

8. Vinokur AD, Price RH, Schul Y. Impact of the JOBS intervention on unemployed workers varying in risk for depression. *Am J Community Psychol* 1995;**23**:39-74.

9. Vinokur AD, Schul Y. Mastery and inoculation against setbacks as active ingredients in the JOBS intervention for the unemployed. *J Consult Clin Psychol* 1997;**65**:867-77.

10. Vinokur AD, Schul Y, Vuori J, Price RH. Two years after a job loss: long-term impact of the JOBS program on reemployment and mental health. *J Occup Health Psychol* 2000;**5**:32-47.

11. Yau, L. H. Y. and Little, R. J.. Inference for the complier-average causal effect from longitudinal data subject to noncompliance and missing data, with application to a job training assessment for the unemployed. 2001. Journal of the American Statistical Association. 96. 1232-1244.

**Työhön**

12. Vuori J, Silvonen J. The benefits of a preventive job search program on re-employment and mental health at 2-year follow-up. *Journal of occupational and organizational psychology* 2005;**78**:43-52.

13. Vuori J, Silvonen J, Vinokur AD, Price RH. The Tyohon Job Search Program in Finland: benefits for the unemployed with risk of depression or discouragement. *J Occup Health Psychol* 2002;**7**:5-19

14. Vuori, J. and Vinokur, A. D.. Job-search preparedness as a mediator of the effects of the Tyohon Job Search Intervention on re-employment and mental health. 2005. Journal of Organizational Behavior. 26. 275-291.

**Rife 1992**

15. Rife J. Reducing depression and increasing job placement success of older workers *Clin Gerontol* 1992;**12**:81-5.

16. Rife JC, Belcher JR. Assisting unemployed older workers to become reemployed: An experimental evaluation. *Research on Social Work Practice* 1994;**4**:3-13.

**Gustafson 1995**

17. Gustafson DJ. *Job seeking, reemployment, and mental health: An intervention experiment in coping with job loss*. Long Beach: California State University; 1995.

**CBT type interventions:**

**Proudfoot 1997**

18. Proudfoot J, Guest D, Carson J, Dunn G, Gray J. Effect of cognitive-behavioural training on job-finding among long-term unemployed people. *Lancet* 1997;**350**:96-100.

19. Proudfoot, J., Gray, J., Carson, J., Guest, D. and Dunn, G.. Psychological training improves mental health and job-finding among unemployed people. 1999. International Archives of Occupational and Environmental Health. 72. S40-S42.

**Harris 2002**

20. Harris E, Lum J, Rose V, Morrow M, Comino E, Harris M. Are CBT interventions effective with disadvantaged job-seekers who are long-term unemployed? *Psychology, Health and Medicine* 2002;**7**:401-10.

**Debt advice:**

**Pleasance 2007**

21. Pleasence P, Balmer NJ. Changing Fortunes: Results from a Randomized Trial of the Offer of Debt Advice in England and Wales. *Journal of Empirical Legal Studies* 2007;**4**:651-73.

**Other interventions**

**Joseph 1999**

22. Joseph LM. The effects of guided mental imagery on subsequent reemployment success in recently laid-off white-collar workers. *Dissertation Abstracts International: Section B: The Sciences and Engineering* 1999;**60**:1337.

23. Joseph LM, Greenberg MA. The Effects of a Career Transition Program on Reemployment Success in Laid-Off Professionals. *Consulting Psychology Journal: Practice & Research Summer* 2001;**53**:169-81.

**Spera 1994**

24. Spera SP, Buhrfeind ED, Pennebaker JW. EXPRESSIVE WRITING AND COPING WITH JOB LOSS. *Academy of Management Journal* 1994;**37**:722-33.

**Hodzic 2015**

25 Hodzic, S. R., P.Bernal, C.Zenasni, F.. The Effects of Emotional Competences Training among Unemployed Adults: A Longitudinal Study. 2015. Applied Psychology. Health and Well-being. 7. 275-92.

26. Hodzic, Sabina, Ripoll, Pilar, Lira, Eva and Zenasni, Franck. Can intervention in emotional competences increase employability prospects of unemployed adults?. 2015. Journal of Vocational Behavior. 88. 28-37.

# Appendix 3 Details of Included studies

| **Study ID, Country, design, no of arms, no of participants** | **Inclusion and exclusion criteria (who the intervention is aimed at)**  **Source of participants**  **Setting** | **Population age and gender and ethnicity** | **Intervention** | **Comparator** | **Attrition:**  **Cost:** |
| --- | --- | --- | --- | --- | --- |
| JOBS I  USA  RCT 2 arms  N=1122 randomised 83% completed baseline, 88% at 6 weeks and 80% at 4 months.  Funded by: NIMH Grant and Michigan Prevention Research Centre | **Inclusion criteria:** People who were eligible for unemployment compensation or decided to apply for such compensation. Excluded: People within 2 years of retirement, people expected to be recalled to their previous job or employer, people with mental health illness or unemployed for more than 4 months  **Source of participants:** Four state recruitment compensation offices in SW Michigan  **Setting of intervention:** Within the geographic area of recruitment and included rooms in churches, public halls, schools, libraries, community colleges. Semi-circular seating was used. | **Age:** Mean 35.9 years  **Gender:**46% Male  **Ethnicity:**75% Caucasian  **Baseline mental health:** Not reported  **Unemployed:** Mean of 13 weeks SD 9 weeks. Maximum 4 months (Exclusion criteria)  **Other:**  **Baseline mental health:** Not reported | **JOBS skills training seminars to improve job seeking**  Eight class based group active training sessions with two trainers (male/female pairs) over a two week period aiming to cover problem solving, decision making processes, inoculation against setbacks, provision of social support and positive regard from trainers, learning and practicing job, search skills, building self-esteem.  **Delivered to:** People in groups of 16-20 participants.  **Delivered by:** Two trainers 1 male 1 female.  **Duration and frequency:** Eight 3 hour sessions over 2 weeks.  **Therapy/ intervention manualised? Fidelity assessed?**  To maintain trainer adherence: Trainers were observed by research staff. With constructive feedback at the end of the session.  **Manual:** Yes  **Supervision (for therapy) :** Weekly supervision with trainer and the person in charge of their training.  **Participants paid?** $20 for completing at least 6 of the 8 sessions. And were mailed $5 incentive to cover transport costs. | Written material. 25 page booklet on Job skills and job searching. | Attrition: 83% of randomised attended baseline assessment, 88% at 6 weeks and 80% at 4 months. 59% did not attend for the intervention.  Cost: Cost of the intervention $283 per individual. At 2.5 y the Federal Government benefited by $720 per participant. State of Michigan benefited $308 per participant; net gain for average individual: $5392 |
| JOBS II  USA  RCT 2 arms  N=1771 randomised completed baseline. Of those 1,801 who enrolled in the study, 1,443 (80%) provided T2 and 1,569 (87%) provided T3 questionnaires.  Funded by: NIMH Grant and Michigan Prevention Research Centre | **Inclusion criteria:** People who were eligible for unemployment compensation or decided to apply for such compensation. Excluded: People within 2 years of retirement, people expected to be recalled to their previous job or employer, people with mental health illness or unemployed for more than 4 months  **Source of participants:** Four state recruitment compensation offices in SW Michigan.  **Setting of intervention:** Within the geographic area of recruitment and included rooms in churches, public halls, schools, libraries, community colleges. Semi-circular seating was used. | **Age:** Mean 32.9 years SD 10.38  **Gender:** Male 44% Female 56%  **Ethnicity:** Caucasian 21% African American 79% White Bas**eline mental health:** Not reported  **Unemployed:** Mean of 4.11 weeks SD 3.8 weeks. Maximum 4 months (Exclusion criteria)  **Other:** | **JOBS skills training seminars to improve job seeking**  The application of problem solving, decision making, group processes, inoculation against setbacks, receiving social support and positive regard from the trainers. Learning and practicing job seeking skills. Skill training  Group support  Problem solving  Trainer support  Active identification of possible setbacks, planning how to respond to these and practicing responses.  **Delivered to:** People in groups of 12-20 participants.  **Delivered by:** Two trainers 1 male 1 female. Trainers included social workers, educational counsellors, and high school teachers who were unemployed and themselves were looking for work.  **Training:** 240 hours of formal training. Including conceptual knowledge of group processes, theory behind the intervention and rehearsal. Two Pilot sessions or practices. With pilot participants.  Teach trainer pair also delivered training t a new group every three weeks. There were three trainer pairs.  **Duration and frequency:** Five X 4 hour sessions over 1 week.  **Therapy/ intervention manualised? Fidelity assessed?**  To maintain trainer adherence: Trainers were observed by research staff. With constructive feedback at the end of the session.  **Manual:** Yes  **Supervision (for therapy):** Weekly supervision with trainer and the person in charge of their training.  **Participants paid?** $5 incentive to cover transportation costs. Respondents assigned to the experimental condition were told they would receive $20 check payment for completing at least 4 of the 5 sessions and a certificate of participation. | Written, self-administered, job search materials and pamphlet. 25 page booklet on Job skills and job searching. | Attrition:  Cost: Not reported |
| Työhön  Finland  RCT 2 arms  N=1261 (randomised) 994 completed  **Funded by**: Not stated | **Inclusion criteria:**  None explicitly stated. But did have to agree to randomisation.  **Source of participants:**  By Mail and phone invitation (almost 25%) and by direct contacts (about 35%) in four employment offices in southwestern Finland. Others (about 40%) came from presentations of the program in employment offices; by contacting recently laid-off workers; by contacting recruiting services of the trade unions, associations of the unemployed, and universities; and by advertisements in newspapers, radio, and the Internet  **Setting:** Classrooms or similar sites at the home region of the participants | **Age:** Median 36, Mean = 37, SD = 8.6  **Gender:** 77.8% Female 22.2% Male  **Ethnicity:** Not reported  **Baseline mental health:** Not reported  **Unemployed:** Median 5 months. (Mean = 10.7 SD = 17.3). 28% unemployed for 12 months or longer. **Welfare:**  **In debt:**  **Other:** 70% High level unemployment benefit (US$70/month 28.8% Low-rate benefits (US$406/month) only 1.8% looking for part time work. | Työhön “let’s get to work” Job Club Program  **Components:** A group job skills training workshop, meeting daily, 5 hours per day for a week. With elements to increase job-search self-efficacy, motivation, and skills and to provide inoculation against setbacks during the job-search process.  **Delivered to:** Groups of 6-17 participants, median 11 participants.  **Delivered by:** Trainers working in teams of two (male and female), selected from Finnish unemployed job-seekers.  **Duration and frequency:** Daily, half-day sessions over 5 days.  **Training of practitioners:** The training was provided by a training supervisor and lasted for 2 months. The training protocol is documented in Ma¨kitalo et al. (1997).  **Fidelity assessed?** Yes by direct observation on one day of the course. Observation by a trainer supervisor or a member of the research team.  **Manual:** Yes, the authors refer to a “detailed intervention process” a manual as documented by Curran  (1992).  **Supervision (for therapy):** Not reported.  **Participants paid?** People were offered a free ticket to their choice of sport or cultural event, or to a physical exercise programme. | Printed material. | Attrition: No reasons for drop out are presented. But do not present any reasons for drop out or look at differences in attrition between intervention and control. 30% of intervention dropped out at Time 2 and end of treatment compared to 12% of control. 3% drop out of control at Time 2 and End of Treatment  Cost: Not reported |
| Rife 1992  USA  RCT 2 arms  N=52  Funded by:  Not reported | **Inclusion criteria:** Unemployed people seeking full-time work. Age 50 or over. Unemployed not due to physical or mental health reasons. Unemployed > 13 weeks. Exclusion criteria: People within 2 years of retirement, people expected to be recalled to their previous job or employer, people with mental health illness or unemployed for more than 4 months.  **Source of participants:** Participants had applied for employment assistance services with the community agency.  **Setting:** Not stated but possibly employment services offices. | **Age:** Mean age 58 82% were 62 or younger  **Gender:** 56% Male 44% Female **Ethnicity:** 94% were white and 6% non-white.  **Baseline mental health:** Mean Geriatric depression scale (GDS) intervention 6.6 control 6.2. PPts were mildly depressed.  **Unemployed:** Unemployed were matched between the groups. But duration of unemployment not described. | **Job Club.** Job searching skills workshops, provision of practical assistance in completing forms and CVs and access to telephones to call potential employers.  **Components:** Job club consisted of a half-day, group, workshop on job-search techniques. Then on-going job club meetings two afternoons per week. These comprised goal setting, receiving information about job seeing interviewing, writing CVs, completing application forms. Groups also provided practical advice and help on information on job leads, access to telephones, and support (peer and from the group leaders).  **Delivered by:** Not reported.  **Duration and frequency:** One half day workshop. Then two afternoon workshops per week for 12 weeks.  **Therapy/ intervention manualised? Fidelity assessed?**  **Manual:** Not reported  **Supervision (for therapy):** Not reported  **Participants paid?** No | Usual service. State Government Job Service and community referral programme.  Services normally available to people in the community e.g. employment registration, information and referral.  **Delivered by:** Job service staff | Attrition: 100%  Cost: No cost data |
| Gustaffson 1995  USA  RCT 2 arms  N=16 | **Inclusion criteria:** Not reported  **Source of participants:** Recruitment from Saddleback college career centre offices. California. Participants approached at the office and offered a two week course.  **Setting:** At home mediated through careers centre. | **Age:** median 36 range 21-50  **Gender:** 12 female 4 male  **Ethnicity:** 2 latino 14 white  **Baseline mental health** Stait Anxiety: Intervention mean 48.2 (SD 11.8) Control mean 41.0 (SD 8.5). Trait anxiety mean 43.6 (SD 14.3) control Mean 46.6 (SD 7.5).  **Unemployed:** Mean duration of unemployment 5.5 months range (1.5 to 13)  **Other: Mean duration of education** 12.75 years.  **Occupational tenure** (Data needs to be checked as oddly inconsistent. Intervention group 25% Less than 5 years, 25% 6-10 years > 10 years 25%. Control Less than 5 years 25%, 6-10 years 37.5 % and > 10 years 0% | **Name of Programme Type of programme (Job/advice/therapy)**  **Job Club**  **Components:** Coping skills, Problem solving, Inoculation against setbacks, Social support and Positive regard from trainers, Job seeking skills training and practice, Job interview preparation.  Group of 8 people  **Delivered by:** Male and female trainer pairs. Job club staff.  **Duration and frequency**: 8X 3 hour sessions over 2 weeks  **Training of practitioners:** None mentioned  **Therapy/ intervention manualised? Fidelity assessed?** Fidelity not reported.  **Manual:** Not reported.  **Supervision (for therapy) :** Not reported  **Participants paid?** No | Self help: Written pamphlet. With Job seeking tips. | Attrition: No attrition reported.  Cost: Not reported |
| Proudfoot 1997  UK  RCT 2 arms  N=289 (randomised)  Funded by:  UK ESRC and Legal and General Assurance Co | **Inclusion criteria:** Unemployed professional people (managerial, administrative professional technical and sales).  Unemployed for > 12 months.  **Referral pathway:**  Newspaper adverts, mail shots, the UK Employment service and an out-sourced employment/recruitment organisation.  **Setting:** Not stated | **Age:** 43 years Range 22-62 years.  **Gender:** 83% male  **Ethnicity:** Not reported.  **Baseline mental health:** Intervention group:GHQ-30 59% scored 5 or more. Control group: GHQ-30 54% scored of 5 or more (psychiatric caseness)  **Unemployed:** For 12 months to 12 years. Mean length of unemployment 25.8 months intervention group and, 23.1 months Control group**.** | **Name of Programme:** CBT.  Group CBT to identify and test the validity of automatic thoughts, reattribution of thoughts, and monitoring behaviour and experimentation with behaviours. The CBT included weekly homework projects. Final session was to teach participants to use what they had learned in the future.  **Duration and frequency:** 3 hours weekly for 7 weeks  **Delivered by:** Two psychologists.  **Training of practitioners:** Not described.  **Therapy/ intervention manualised? Fidelity assessed?** Fidelity not mentioned.Manual not mentioned.  **Supervision (for therapy):** Not described.  **Participants paid?** No. | **Social support programme.** Same format as CBT and included weekly homework.  **Delivered by:** Two psychologists  **Training:** Not reported  **Therapy manualised?** Not reported  **Duration and frequency:** 3 hours weekly for 7 weeks  **Treatment fidelity** Not reported  **Supervision:** Not reported | 10 became employed or started a course. (7 comparator group, 3 intervention group). 31 withdrew no reason.  Cost: £400 per person. |
| Harris 2002  Australia  RCT 2 arms  N=195 (randomised)  100 completed.  Funded by: | **Inclusion criteria:** Long-term unemployed age 18-45 years. Identified as having barriers to employment such as long-term unemployment, limited education.  **Source of participants:** Employment support agencies in disadvantaged areas of Sydney.  **Setting:** Employment support agencies in disadvantaged areas of Sydney. | **Age:** 34 years SD=9.4 **Gender:** 55% male 45% female  **Ethnicity:** Not reported.  **Baseline mental health Intervention SF-36 MCS** 41.03 (15.13) Control SF-36 MCS 45.63 (12.35)  **Unemployed:** Mean length of unemployment 33 months (SD = 40.0)  **Other:** Long term unemployed from disadvantaged areas of Sydney. 51% left school before completing higher-level qualifications | **Name of Programme:** CBT Group (10-15)  **Components:** Cognitive restructuring (Identifying negative thoughts, modifying and replacing thoughts), problem solving (five step structured problem solving activity), behaviour strategies (relaxation skills, breathing techniques).  **Delivered by:** Two facilitators (one a clinical psychologist).  **Duration and frequency:** Two days (11 hours)  **Training of practitioners:** Not reported  **Therapy/ intervention manualised? Fidelity assessed?** Not reported  **Manual:**  Yes adapted from a three day course manual.  **Supervision (for therapy):** Not reported  **Participants paid?** No | **Programme**: Two day Senior First Aid certificate. Two day Senior 1st Aid Certificate – fundamental principles/knowledge/skills of 1st Aid (until a trained professional arrives  **Delivered by:** Trained staff Australian Red Cross.  **Duration and frequency:** Two days.  Participants sat an exam. | Attrition: 95 people (49% dropped out. (54% intervention and 40% control) Attrition caused by not presenting for the course or dropping out before completion.  Cost: Not reported |
| Pleasance 2007  UK  RCT 2 arms  N=402 (Randomised)  334 completed (119 intervention and 114 control) | **Inclusion criteria:** Participants had an ongoing debt problem and not to have received any advice (other than friend or relative)  “1. Being behind in payments for a mortgage, rent, credit/store card, personal loan, hire or credit purchase, utilities, maintenance, tax, or court fines *and* having a problem paying the money owed;  *or*  2. Experiencing real difficulty managing debt.”  **Source of participants:** Researchers approached people in Job centres in the UK  **Setting:** Telephone intervention | **Age:** Mean age ,35 years. 61% less than 35 years.  **Gender:**Not reported  **Ethnicity:** 66% while and 34% not white.  **Baseline mental health:** Not reported  **Unemployed:** ‘Mostly unemployed seeking work’ recruited from job centres.  **In debt:** 100% of participants were in debt  **Other:** 50 percent reported a personal income of less than £4,000 p.a. and 19% single parents and 45% rented homes from social landlord. | **Debt advice**: Telephone call from national debtline.  **Who gave advice?** National Debt line  **Where was advice given?** By Phone  Telephone call from National Debtline. Advice was free of charge. Immediate advice and assistance was provided in relation to any emergency issues, (e.g. baliffs or repossession). Main advice was on longer-term resolution of problems such as debt management programmes. Written self-help materials were provided. Participants could be referred on to other services. | **No intervention:** Usual job-centre services. | **Attrition:** 168 people dropped out (41.8%) 42% intervention and 41.6% control.  **Cost:** |
| Spera 1990  USA  RCT 3 arms  N=41  Funded by: Not reported | **Inclusion criteria:**  No specific inclusion criteria reported.  **Source of participants:** Professionals being laid off from a large company were offered the services of an outplacement (reemployment) company.  **Setting:** Offices of Outplacement company | **Age:** 54 years (Range 40-68)  **Gender:** 98% male (62 men 1 woman)  **Ethnicity:** Not reported  **Baseline mental health:** Measured but values not reported.  **Unemployed:** Mean length unemployment5 months. Mean 20 years working with same employer.  **Other:** Managerial professionals being offered the services of an outplacement company as they were being laid off from employment. | **Writing transition project**  Daily, private, disclosive writing sessions for recording personal and deepest thoughts and feelings about unemployment and how their lives both personal and professional, had been affected. Participants were encouraged to explore their emotions deeply.  **Delivered by:** One of the study authors (Psychologist or business management consultant with MSc in Psychology)  **Duration and frequency:**20 minutes daily for 5 days.  **Training:**  **Therapy/ intervention manualised? Fidelity assessed?**  **Manual:** Formal manual not described. Investigators met participants each day and provided instruction.  **Supervision (for therapy):**  **Treatment fidelity**: Not reported  **Participants paid?** Participants were offered the services of an outplacement company following layoff from a large company. | Control writing: Daily, private, disclosive writing sessions for recording plans for the day, and activities in job search.  **Delivered by:** Not reported  **Training:** Not reported  **Therapy manualised?**  **Duration and frequency:**20 minutes daily for 5 days.  **Treatment fidelity**  **Supervision:**  No writing. Participants were not randomised to this group. | Attrition: At 3 months only 34/41 (83%) provided outcome data.  **Cost:** Not provided |
| Joseph 2002  USA  RCT 2 arms  N=76 (Randomised)  Funded by: Not reported | **Inclusion criteria:** Business people unemployed for less than 6 months. (4 people still had 2-4 weeks to run in their job before unemployed. Exclusion criteria, unemployed for more than 6 months, intent to work part-time (<30 hours per week) or on temporary (contract) work, or participation in psychotherapy.  **Source of participants:** Unemployed business people recruited from ‘outplacement firms’ from 7 locations in California.  **Setting:** Offices of outplacement firms. | **Age:** Mean age 46.8 years (range 29-64)  **Gender:**60% Men 40% women  **Ethnicity:**83% Caucasian 17% ethnic minorities. **Unemployed:** Mean unemployment duration 2.3 months, range (0-5.8 months).  **Other:** Participants described as ‘business workers’ Mean years in last job 8.27 years, (0.17-30.58) years.  **Baseline mental health:** Intervention group mean CES-D (SD) 12.38 (9.39) Control CES-D 16.68 (10.25). | Guided imagery group intervention  **Components:** Brief, 6 session, individual, guided imagery intervention including guided relaxation, emotional experience, emotional expression, job search and job interview rehearsal, positive self-regard and cognitive reframing.  **Delivered by:** Introduced by M Joseph (Author). Guided imagery was pre-recorded tapes (practitioner not reported).  **Training of practitioners:** Not reported  **Therapy/ intervention manualised? Fidelity assessed?** Not reported  **Manual:**  No  **Supervision (for therapy) :** Not reported  **Participants paid?** Each participant received two tickets for the cinema. Participants were entered into a draw for $500 awarded to one ppt at the end of the study. | Placebo imagery. Self-directed visualisation of job search plans and activities in the past and the future.  Six twenty minute “Imagery sessions” following written instructions, thinking about their daily job search activities. **Delivered by:** Not stated. The intervention was given as written instructions. | Attrition: 19 people dropped out. 8 before first intervention session, 2 after session 1, 1 after session 4 and 1 at 2 month follow-up. 5 people who dropped out were still employed at the start of the intervention (working out their notice). 3 People were disqualified for not completing three sessions in allotted time, 1 listened to the tapes of the other intervention, and 1 fell asleep during listening.  Cost: Not reported |
| Hodzic 2015  Spain  RCT 2 arms  N=78  Funded by: Not stated | **Inclusion criteria:** a) being unemployed, b) motivated about the intervention process, c) no prior knowledge about the intervention, d) not using the intervention content for professional purposes) not planning psychological treatment during the training, and f) not being dependent on drugs, alcohol or  psycho-pharmaceuticals  **Referral pathway:** Announcements in local employment and training offices.  **Setting:** Not stated | **Age:** Intervention mean age 32.68 (SD 10.34) Control mean age 36.4 (SD 12.02).  **Gender:** 13% male  **Ethnicity:** Not reported  **Baseline mental health:** GHQ-12 Intervention Mean=2.42 (SD=0.53) Control Mean = 2.58 (SD=0.60). Mood anxiety Mean=2.94 (SD=0.98) Control Mean = 2.59 (SD=0.95).  Mood depression Mean=1.83 (SD=0.87) Control Mean = 1.70 (SD=0.58).  **Unemployed:** 100% | **Name of Programme:** Emotional competences training  Group work to identify and understand emotions of the self and other, using emotions to assess need regulating emotions, conflict management, practical work to regulate one’s own emotions and to listen to others’ emotions. Including video clips, group exercise, discussion and role play.  **Duration and frequency:** 3 days (5 hours per day). Day one and 2 were consecutive. Two weeks gap between day 2 and day 3.  **Delivered by:** Two lecturers  **Training of practitioners:** Not mentioned  **Therapy/ intervention manualised?** Not mentioned. But Probably.  **Fidelity assessed?** Not reported.  **Supervision (for therapy):** Not reported.  **Participants paid?** Not reported. | **No intervention.** Wait list control.Participants attended to have outcome measure assessments at the same time intervals as the intervention group. | At follow-up T3 3 participants from the intervention and 8 from the control were lost to follow-up. |

# Appendix 4 List of excluded studies and reasons for exclusion

**Not a randomised controlled trial n=31**

**Abbott, S. & Hobby, L.** (2000). Welfare benefits advice in primary care: evidence of improvements in health. *Public Health* **114**, 324-7.

**Akkermans, J., Brenninkmeijer, V. & Blonk, R. W. B.** (2015). A new perspective on the work and career of young employees. *Gedrag & Organisatie* **28**, 220-242.

**Brooks, F., Nackerud, L. & Risler, E.** (2001). Evaluation of a Job-Finding Club for TANF Recipients: Psychosocial Impacts. *Research on Social Work Practice* **11**, 79-82.

**Chandler, A. L.** (1984). Using an Abbreviated Job Club Program in a Job Service Setting. *Journal of Employment Counseling* **21**, 98-102.

**Chib, S. & Jacobi, L.** (2008). Analysis of treatment response data from eligibility designs. *Journal of Econometrics* **144**, 465-478.

**Cook, K.** (2012). Neoliberalism, welfare policy and health: a qualitative meta-synthesis of single parents' experience of the transition from welfare to work. *Health: an Interdisciplinary Journal for the Social Study of Health, Illness & Medicine* **16**, 507-30.

**Creed, P. A., Machin, M. A. & Hicks, R. E.** (1999). Improving mental health status and coping abilities for long-term unemployed youth using cognitive-behaviour therapy based training interventions. *Journal of Organizational Behavior* **20**, 963-978.

**Dambrun, M. & Dubuy, A.-L.** (2014). A Positive Psychology Intervention Among Long-Term Unemployed People and Its Effects on Psychological Distress and Well-Being. *Journal of Employment Counseling* **51**, 75-88.

**Dr Beurs, E., Van Dyck, R., Marquenie, L. A., Lange, A. & Blonk, R.** (2001). De DASS: een vragenlijst voor het meten van depressie, angst en stress. *Gedragstherapie* **34**, 35-53.

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**Maguire, N., Hughes, V. C., Bell, L., Bogosian, A. & Hepworth, C.** (2014). An evaluation of the choices for well-being project. *Psychology Health & Medicine* **19**, 303-15.

**Maysent, M. & Spera, S.** (1995). Coping with job loss and career stress: Effectiveness of stress management training with outplaced employees. In *Job stress interventions* (ed. L. R. Murphy, J. J. Hurrell, Jr, S. L. Sauter and G. P. Keita), pp. 159-170. American Psychological Association: Washington, DC, US.

**Noordzij, G., van Hooft, E. A. J., van Mierlo, H., van Dam, A. & Born, M. P.** (2013). The effects of a learning-goal orientation training on self-regulation: A field experiment among unemployed job seekers. *Personnel Psychology* **66**, 723-755.

**Pega, F., Carter, K., Blakely, T. & Lucas, P. J.** (2013). In-work tax credits for families and their impact on health status in adults. *Cochrane Database of Systematic Reviews* **8**, CD009963.

**Reynolds, C., Barry, M. M. & Nic Gabhainn, S.** (2010). Evaluating the Impact of the Winning New Jobs Programme on the Re-employment and Mental Health of a Mixed Profile of Unemployed People. *International Journal of Mental Health Promotion* **12**, 32-41.

**Richter, P. & Nitsche, I.** (2002). Long-term unemployment and health - Stabilising effects through activities outside gainful employment. *Zentralblatt fur Arbeitsmedizin, Arbeitsschutz, Prophylaxe und Ergonomie* **52**, 194-9.

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**Participants had serious mental health problems n=10**

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**Hasson, H., Andersson, M. & Bejerholm, U.** (2011). Barriers in implementation of evidence-based practice: Supported employment in Swedish context. *Journal of Health Organization & Management* **25**, 332-45.

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**Kukla, M. & Bond, G. R.** (2009). The working alliance and employment outcomes for people with severe mental illness enrolled in vocational programs. *Rehabilitation Psychology* **54**, 157-63.

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**Conference proceeding n=3**

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**Intervention designed to prevent unemployment n=1**

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**Loan reconsideration n=1**

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## Appendix 5 Intervention characteristics: Were key factors in the delivery of the intervention reported in the paper?

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Study ID** | **Intervention** | **Personnel** | **Training** | **Supervision** | **Manual** | **Fidelity** |
| JOBS I | Job club | ✔2 trainers (male, female) | 🗙 | ✔ | ✔ | ✔ |
|  | Written self-help | 🗙 | 🗙 | 🗙 | 🗙 | 🗙 |
| JOBS II | Job club | ✔2 trainers (male, female) | ✔ | ✔ | ✔ | ✔ |
|  | Written self-help | 🗙 | 🗙 | 🗙 | 🗙 | 🗙 |
| Työhön | Job club | ✔2 trainers (male, female) | ✔ | 🗙 | ✔ | ✔ |
|  | Written self- help | 🗙 | 🗙 | 🗙 | 🗙 | 🗙 |
| Rife 1992 | Job club | 🗙 | 🗙 | 🗙 | 🗙 | 🗙 |
|  | Usual service | 🗙 | 🗙 | 🗙 | 🗙 | 🗙 |
| Gustaffson 1995 | Job club | ✔2 trainers (male, female) | 🗙 | 🗙 | 🗙 | 🗙 |
|  | Written self-help | 🗙 | 🗙 | 🗙 | 🗙 | 🗙 |
| Proudfoot 1997 | CBT | ✔ 2 psychologists | 🗙 | 🗙 | 🗙 | 🗙 |
|  | Social support | ✔ 2 psychologists | 🗙 | 🗙 | 🗙 | 🗙 |
| Harris 2002 | CBT | ✔ 2 facilitators 1 psychologist | 🗙 | 🗙 | ✔ | 🗙 |
|  | First aid training | ✔ Red cross staff | 🗙α | 🗙 α | 🗙 α | 🗙 α |
| Hodzic 2015 | Emotional competencies training | ✔2 lecturers | 🗙 | 🗙 | 🗙 | 🗙 |
|  | No intervention | 🗙 |  |  |  |  |
| Pleasance 2007 | Debt advice | ✔ Debt line staff | 🗙β | 🗙β | 🗙β | 🗙β |
|  | No intervention | 🗙 | 🗙 | 🗙 | 🗙 | 🗙 |
| Spera 1994 | Expressive writing | ✔ Study authors | 🗙 | 🗙 | 🗙 | 🗙 |
|  | Control writing |  | 🗙 | 🗙 | 🗙 | 🗙 |
| Joseph 1999 | Guided imagery | ✔ Author plus 1 other (Not stated) | 🗙 | 🗙 | 🗙 | 🗙 |
|  | Placebo | 🗙 | 🗙 | 🗙 | 🗙 | 🗙 |

Foot notes:

Personnel: Were the people delivering the intervention (practitioners) described?

Training: Did authors report if the practitioners were given specific training?

Supervision: Did authors report if the practitioners were given supervision?

Manual: Did the authors describe the use of a manual to guide and specify the content and delivery of the intervention?

Fidelity: Did the authors describe a means of assessing if the intervention was delivered as specified in the manual?

✔= reported 🗙= not reported

αAlthough no specific manual was mentioned the participants completed a prescribed course that is equivalent to a manual. In addition the people delivering the intervention were be trained in delivering the course.

βAlthough no specific manual was mentioned – the context of delivering advice for National Debt Line implies undertaking specific training and use of advice protocols. In addition the work of advisors is likely to be monitored.