

## Supplementary D: Bibliography of Excluded Studies with Reasons

1. Case study. Measuring the impact of wilderness therapy. *Joint Commission Benchmark*. 2004;6(6):8-10.  
Exclusion reason: No data collected that clearly defined nature dosage.
2. Nature's calming influence. *Health Facil Manage*. 2010;23(7):44.  
Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.
3. Beyond Blue to Green: The benefits of contact with nature for mental health and well-being. *Australasian Parks & Leisure*. 2010;13(3):10-11.  
Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.
4. The Effects of Regular Mountain Hiking on Hopelessness in Chronically Suicidal Patients. Trial registry record; Clinical trial protocol. Source: <https://clinicaltrials.gov/show/NCT01152086>. Cochrane Central Register of Controlled Trials (CENTRAL) [CN-01530260]  
<https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01530260/full>.  
Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.
5. Intervention study of psychotherapy. Trial registry record; Clinical trial protocol. Source: <http://www.who.int/trialsearch/Trial2.aspx?TrialID=JPRN-UMIN000006170>. Cochrane Central Register of Controlled Trials (CENTRAL) [CN-01835996]  
<https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01835996/full>.  
Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.
6. 'Green' Exercise for Good Mental Health. *Hoofbeats: An Australian Riding, Training & Horse Care Magazine*. 2013;35(3):47-47.  
Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.
7. Green-fingered therapy is showing results. *Nurs Stand*. 2013;27(52):5-5.  
Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.
8. Wilderness Recreation Experience Boosts Veterans Mental Well-Being. *J Psychosoc Nurs Ment Health Serv*. 2013;51(11):6-13.  
Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

9. Nacadia Effect Study (NEST). Trial registry record; Clinical trial protocol. Source: <https://clinicaltrials.gov/show/NCT01849718>. Cochrane Central Register of Controlled Trials (CENTRAL) [CN-01585340] <https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01585340/full>.

Exclusion reason: quantitative data not collected (only qualitative data collected); no original data collected; or, data reported NOT usable (i.e. no Means/SD).

10. Effect of Group Hiking in Nature on Physical Health and Quality of Life in Chronic Schizophrenic Patients. Trial registry record; Clinical trial protocol. Source: <http://www.who.int/trialsearch/Trial2.aspx?TrialID=IRCT201306222085N12>. Cochrane Central Register of Controlled Trials (CENTRAL) [CN-01818208] Accessed 2024.

<https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01818208/full>.

Exclusion reason: quantitative data not collected (only qualitative data collected); no original data collected; or, data reported NOT usable (i.e. no Means/SD).

11. Erratum to Correction: Using nature-based rehabilitation to restart a stalled process of rehabilitation in individuals with stress-related mental illness (Int. J. Environ. Res. Public health, (2015), 12, (1928-1951)). *Int J Environ Res Public Health*. 2015;12(6):6946-6947. doi:10.3390/ijerph120606946.

Exclusion reason: quantitative data not collected (only qualitative data collected); no original data collected; or, data reported NOT usable (i.e. no Means/SD).

12. Care home's tool shed lures male residents outdoors. *Mental Health Practice*. 2015;18(8):7-7. doi:10.7748/mhp.18.8.7.s8.

Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

13. A long walk through nature: strolling for mental health. *Aging Today*. 2015;36(5):15-15.

Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

14. PHENOTYPE. Therapeutic Study in Barcelona. Trial registry record; Clinical trial protocol. Source: <https://clinicaltrials.gov/show/NCT02624921>. Cochrane Central Register of Controlled Trials (CENTRAL) [CN-02040257] <https://www.cochranelibrary.com/central/doi/10.1002/central/CN-02040257/full>.

Exclusion reason: quantitative data not collected (only qualitative data collected); no original data collected; or, data reported NOT usable (i.e. no Means/SD).

15. Effects of Horticultural Therapy on Asian Elderly' Mental Health. Trial registry record; Clinical trial protocol. Source: <https://clinicaltrials.gov/show/NCT02495194>. Cochrane Central Register of Controlled Trials (CENTRAL) [CN-02031796]

<https://www.cochranelibrary.com/central/doi/10.1002/central/CN-02031796/full>.

Exclusion reason: quantitative data not collected (only qualitative data collected); no original data collected; or, data reported NOT usable (i.e. no Means/SD).

16. Study for Decreasing Depressive Symptoms and Increasing Memory Performance in the Elderly. Trial registry record; Clinical trial protocol. Source:

<http://www.who.int/trialsearch/Trial2.aspx?TrialID=JPRN-UMIN000018547>. Cochrane Central Register of Controlled Trials (CENTRAL) [CN-01880926]

<https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01880926/full>.

Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

17. More time outside can lift mood in older people. *Nurs Stand*. 2017;31(46):17.  
doi:10.7748/ns.31.46.17.s20.

Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

18. Poor outdoor access linked to depression. *Nurs Older People*. 2017;29(6):6.  
doi:10.7748/nop.29.6.6.s3.

Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

19. Effect of Sunlight Exposure and Outdoor Activities on Depression, Cognition and Quality of Life in the Elderly. Trial registry record; Clinical trial protocol. Source: <https://clinicaltrials.gov/show/NCT03304301>. Cochrane Central Register of Controlled Trials (CENTRAL) [CN-01564688] <https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01564688/full>.

Exclusion reason: quantitative data not collected (only qualitative data collected); no original data collected; or, data reported NOT usable (i.e. no Means/SD).

20. Effect of horticultural therapy on patients with depression. Trial registry record; Clinical trial protocol. Source: <http://www.who.int/trialsearch/Trial2.aspx?TrialID=JPRN-UMIN000028234>. Cochrane Central Register of Controlled Trials (CENTRAL) [CN-01890042] <https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01890042/full>.

Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

21. Effect verification of reminiscence method in the miniature garden. Trial registry record; Clinical trial protocol. Source: <http://www.who.int/trialsearch/Trial2.aspx?TrialID=JPRN-UMIN000029749>. Cochrane Central Register of Controlled Trials (CENTRAL) [CN-01891175] <https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01891175/full>.

Exclusion reason: quantitative data not collected (only qualitative data collected); no original data collected; or, data reported NOT usable (i.e. no Means/SD).

22. The effect of a horticultural activities program for the community elderly. Trial registry record; Clinical trial protocol. Source: <http://www.who.int/trialsearch/Trial2.aspx?TrialID=JPRN-UMIN000027071>. Cochrane Central Register of Controlled Trials (CENTRAL) [CN-01889199] <https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01889199/full>.

Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

23. Sour mood getting you down? Get back to nature: Research suggests that mood disorders can be lifted by spending more time outdoors. *Harv Mens Health Watch*. 2018;22(12):3-3.

Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

24. Effectiveness of Nature Walks in Depressed Adults. Trial registry record; Clinical trial protocol. Source: <https://clinicaltrials.gov/show/NCT03996785>. Cochrane Central Register of Controlled Trials

(CENTRAL) [CN-01983319] Accessed 2024.

<https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01983319/full>.

Exclusion reason: No data presented on participants' symptoms of mental illness

25. The Nature Cure. *Consumer Reports on Health*. 2019;31(4):3-3.

Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

26. Walking Green: the Effects of Walking in Forested and Urban Areas. Trial registry record; Clinical trial protocol. Source: <https://clinicaltrials.gov/show/NCT03950661>. Cochrane Central Register of Controlled Trials (CENTRAL) [CN-01944794]

<https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01944794/full>.

Exclusion reason: quantitative data not collected (only qualitative data collected); no original data collected; or, data reported NOT usable (i.e. no Means/SD).

27. The Sunlight Exposure Therapy on the Improvement of Depression and Quality of Life in Post-stroke Patients. Trial registry record; Clinical trial protocol. Source:

<https://clinicaltrials.gov/show/NCT04036565>. Cochrane Central Register of Controlled Trials (CENTRAL) [CN-01983456] <https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01983456/full>.

Exclusion reason: quantitative data not collected (only qualitative data collected); no original data collected; or, data reported NOT usable (i.e. no Means/SD).

28. Shinrin-Yoku (Forest Bathing) on Psychological Well-being. Trial registry record; Clinical trial protocol. Source: <https://clinicaltrials.gov/show/NCT04139421>. Cochrane Central Register of Controlled Trials (CENTRAL) [CN-01994377] <https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01994377/full>.

Exclusion reason: quantitative data not collected (only qualitative data collected); no original data collected; or, data reported NOT usable (i.e. no Means/SD).

29. Veterans Nature Therapy (Vet Hike). Trial registry record; Clinical trial protocol. Source:

<https://clinicaltrials.gov/show/NCT03997344>. Cochrane Central Register of Controlled Trials (CENTRAL) [CN-01946089] <https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01946089/full>.

Exclusion reason: quantitative data not collected (only qualitative data collected); no original data collected; or, data reported NOT usable (i.e. no Means/SD).

30. Multi-component cognitive intervention with physical exercise for older adults with Alzheimer's disease: a 6-month randomized controlled trial. Trial registry record; Clinical trial protocol. Source: <http://www.who.int/trialsearch/Trial2.aspx?TrialID=JPRN-UMIN000036888>. Cochrane Central Register of Controlled Trials (CENTRAL) [CN-01969613]

<https://www.cochranelibrary.com/central/doi/10.1002/central/CN-01969613/full>.

Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

31. In Case You Haven't Heard. *Mental Health Weekly*. 2020;30(21):8-8. doi:10.1002/mhw.32382.

Exclusion reason: Wrong study design.

32. The psychological benefits of gardening. *Therapy Today*. 2020;31(5):17-17.

Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

33. Abraham TH, Koenig CJ, Zamora K, et al. Situating mental health work in place: Qualitative findings from interviews with Veterans in Southeastern Louisiana and Northern California. *Health & Place*. 2017;47:63-70. doi:10.1016/j.healthplace.2017.07.001.

Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

34. Adams M, Morgan J. Mental health recovery and nature: How social and personal dynamics are important. *Ecopsychology*. 2018;10(1):44-52. doi:10.1089/eco.2017.0032.

Exclusion reason: Wrong study design.

35. Adamsson M, Laike T, Morita T. Seasonal Variation in Bright Daylight Exposure, Mood and Behavior among a Group of Office Workers in Sweden. *Journal of Circadian Rhythms*. 2018;16:2. doi:10.5334/jcr.153.

Exclusion reason: Intervention did not occur outdoors.

36. Adevi AA, Uvnäs-Moberg K, Grahn P. Therapeutic interventions in a rehabilitation garden may induce temporary extrovert and/or introvert behavioural changes in patients, suffering from stress-related disorders. *Urban Forestry and Urban Greening*. 2018;30:182-193. doi:10.1016/j.ufug.2018.02.010.

Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

37. Aerts R, Honnay O, Van Nieuwenhuyse A. Biodiversity and human health: mechanisms and evidence of the positive health effects of diversity in nature and green spaces. *Br Med Bull*. 2018;127(1):5-22. doi:10.1093/bmb/ldy021.

Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

38. Alaimo K, Beavers AW, Crawford C, Snyder EH, Litt JS. Amplifying Health Through Community Gardens: A Framework for Advancing Multicomponent, Behaviorally Based Neighborhood Interventions. *Current Environmental Health Reports*. 2016;3(3):302-12. doi:10.1007/s40572-016-0105-0.

Exclusion reason: quantitative data not collected (only qualitative data collected); no original data collected; or, data reported NOT usable (i.e. no Means/SD).

39. Alcock I, White MP, Wheeler BW, Fleming LE, Depledge MH. Longitudinal effects on mental health of moving to greener and less green urban areas. *Environ Sci Technol*. 2014;48(2):1247-55. doi:10.1021/es403688w.

Exclusion reason: No data collected that clearly defined nature dosage.

40. Alford S, Perlman D, Sumskis S, et al. What can leisure offer those with a mental illness; diversion, experience or something much richer? *World Leisure Journal*. 2017;59(3):218-226.

Exclusion reason: No data collected that clearly defined nature dosage.

41. Aliyas Z. Physical, mental, and physiological health benefits of green and blue outdoor spaces among elderly people. *Int J Environ Health Res*. 2019:1-12. doi:10.1080/09603123.2019.1681379.

Exclusion reason: Only one time point collected.

42. Aliyas Z, Masoudi Nezhad S. The Role of Historical Persian Gardens as Urban Green Spaces: Psychological, Physical, and Social Aspects. *Environmental Justice*. 2019;12(3):132-139. doi:10.1089/env.2018.0034.

Exclusion reason: No data collected on symptoms of mental illness.

43. Allen D. A breath of fresh air. *Mental Health Practice*. 2008;11(10):8-9.

Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

44. Alton C, Colacci N, Gatt K, Hitzig SL. The benefits of a SCRP therapeutic recreation cottage program on psychological well-being in persons with spinal cord injury. *Topics in Spinal Cord Injury Rehabilitation*. 2011;16:67. doi:10.1310/sci16S1-53.

Exclusion reason: No data collected on symptoms of mental illness.

45. Alves SM. *The role of nature -related activities in the psychological well-being of nursing home residents*. The University of Wisconsin, Milwaukee; 2003.

Exclusion reason: Intervention did not occur outdoors or intervention does not meet study's definition of nature.

46. Ambrey CL. An investigation into the synergistic wellbeing benefits of greenspace and physical activity: Moving beyond the mean. *Urban Forestry and Urban Greening*. 2016;19:7-12. doi:10.1016/j.ufug.2016.06.020.

Exclusion reason: No data collected that clearly defined nature dosage.

47. Ambrey CL, Cartlidge N. Do the psychological benefits of greenspace depend on one's personality? *Pers Individ Dif*. 2017;116:233-239. doi:10.1016/j.paid.2017.05.001.

Exclusion reason: No data collected that clearly defined nature dosage.

48. An M, Colarelli SM, O'Brien K, Boyajian ME. Why we need more nature at work: Effects of natural elements and sunlight on employee mental health and work attitudes. *PLoS One*. 2016;11(5).

Exclusion reason: Intervention did not occur outdoors or intervention does not meet study's definition of nature.

49. Andel R, Crowe M, Pedersen NL, Fratiglioni L, Johansson B, Gatz M. Physical exercise at midlife and risk of dementia three decades later: a population-based study of Swedish twins. *Journals of Gerontology Series A-Biological Sciences & Medical Sciences*. 2008;63(1):62-6.

Exclusion reason: Intervention did not occur outdoors or intervention does not meet study's definition of nature.

50. Anderson CL, Monroy M, Keltner D. Awe in nature heals: Evidence from military veterans, at-risk youth, and college students. *Emotion*. 2018;18(8):1195-1202. doi:10.1037/emo0000442.

Exclusion reason: No data presented on participants' symptoms of mental illness.

51. Anderson K, Bird M, Macpherson S, McDonough V, Davis T. Findings from a pilot investigation of the effectiveness of a snoezelen room in residential care: should we be engaging with our residents more? *Geriatric Nursing*. 2011;32(3):166-77. doi:10.1016/j.gerinurse.2010.12.011.

Exclusion reason: Intervention did not occur outdoors or intervention does not meet study's definition of nature.

52. Anderson L, Schleien SJ, McAvoy L, Lais G, Seligmann D. Creating positive change through an integrated outdoor adventure program. *Ther Recreation J*. 1997;31(4):214-229.

Exclusion reason: No data collected on symptoms of mental illness.

53. Anthun KS, Maass REK, Hope S, Espnes GA, Bell R, Khan M, Lillefjell M. Addressing inequity: Evaluation of an intervention to improve accessibility and quality of a green space. *Int J Environ Res Public Health*. 2019;16(24)doi:10.3390/ijerph16245015.

Exclusion reason: Did not separate participant group with mental illness or symptoms.

54. Antonioli C, Reveley MA. Randomised controlled trial of animal facilitated therapy with dolphins in the treatment of depression. *BMJ*. 2005;331(7527):1231.

Exclusion reason: Quantitative data not in article, not provided by author.

55. Araci D. *Mindfulness and virtual environments: the impact of mediated nature on anxiety, affect, worry and levels of mindfulness*. University of Southampton; 2018.

Exclusion reason: Intervention did not occur outdoors or intervention does not meet study's definition of nature.

56. Arai A, Ishida K, Tomimori M, Katsumata Y, Grove JS, Tamashiro H. Association between lifestyle activity and depressed mood among home-dwelling older people: a community-based study in Japan. *Aging Ment Health*. 2007;11(5):547-55.

Exclusion reason: No data collected that clearly defined nature dosage.

57. Araújo D, Brymer E, Brito H, Withagen R, Davids K. The empowering variability of affordances of nature: Why do exercisers feel better after performing the same exercise in natural environments than in indoor environments? *Psychol Sport Exerc*. 2019;42:138-145. doi:10.1016/j.psychsport.2018.12.020.

Exclusion reason: quantitative data not collected (only qualitative data collected); no original data collected; or, data reported NOT usable (i.e. no Means/SD).

58. Archer S. Access to nature associated with less stress and lower weight. *IDEA Fitness Journal*. 2009;6(3):71-71.

Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

59. Armstrong DL. A community diabetes education and gardening project to improve diabetes care in a Northwest American Indian tribe. *Diabetes Educ*. 2000;26(1):113-20.

Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

60. Arnberger A, Eder R, Allex B, et al. Health-Related Effects of Short Stays at Mountain Meadows, a River and an Urban Site-Results from a Field Experiment. *Int J Environ Res Public Health*. 2018;15(12):26. doi:10.3390/ijerph15122647.

Exclusion reason: Did not separate participant group with mental illness or symptoms.

61. Arnold C. Vegetation Delight? Greenness and Reduced Risk of Nonaccidental Death. *Environ Health Perspect.* 2016;124(9):A169-A169. doi:10.1289/ehp.124-A169.  
Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.
62. Aronstein Z, Olsen R, Schulman E. The nursing assistants use of recreational interventions for behavioral management of residents with Alzheimer's disease. *American Journal of Alzheimer's Disease.* 1996;26-31.  
Exclusion reason: Intervention did not occur outdoors.
63. Ashbaugh JW. Down the garden path of self-determination. *Ment Retard.* 2002;40(5):416-7.  
Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.
64. Ashman J. Growing Healing One Garden at a Time. *J Christ Nurs.* 2016;33(1):35-7.  
Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.
65. Ashton J. Plants and green spaces provide more than just aesthetic benefits. *Perspectives in Public Health.* 2015;135(4):178-9. doi:10.1177/1757913915586653.  
Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.
66. Aspinall P, Mavros P, Coyne R, Roe J. The urban brain: analysing outdoor physical activity with mobile EEG. *Br J Sports Med.* 2015;49(4):272-6. doi:10.1136/bjsports-2012-091877.  
Exclusion reason: No data collected on symptoms of mental illness.
67. Astell-Burt T. Greener neighbourhoods, healthier lives? Evidence from Britain. *J Sci Med Sport.* 2012;15:S100. doi:10.1016/j.jsams.2012.11.242.  
Exclusion reason: No data collected that clearly defined nature dosage.
68. Astell-Burt T, Feng X. Association of Urban Green Space With Mental Health and General Health Among Adults in Australia. *JAMA Network Open.* 2019;2(7):e198209. doi:10.1001/jamanetworkopen.2019.8209.  
Exclusion reason: No data collected that clearly defined nature dosage.
69. Astell-Burt T, Feng X, Kolt GS. Mental health benefits of neighbourhood green space are stronger among physically active adults in middle-to-older age: evidence from 260,061 Australians. *Prev Med.* 2013;57(5):601-6. doi:10.1016/j.ypmed.2013.08.017.  
Exclusion reason: No data collected that clearly defined nature dosage.
70. Astell-Burt T, Mitchell R, Hartig T. The association between green space and mental health varies across the lifecourse. A longitudinal study. *J Epidemiol Community Health.* 2014;68(6):578-83. doi:10.1136/jech-2013-203767.  
Exclusion reason: No data collected that clearly defined nature dosage.



71. Attwell C, Johr J, Pincherle A, et al. Neurosensory stimulation outdoors enhances cognition recovery in cognitive motor dissociation: A prospective crossover study. *NeuroRehabilitation*. 2019;44(4):545-554. doi:10.3233/NRE-192692.  
Exclusion reason: Only one time point collected.
72. Austin EN, Johnston YAM, Morgan LL. Community Gardening in a Senior Center: A Therapeutic Intervention to Improve the Health of Older Adults. *Ther Recreation J*. 2006;40(1):48-56.  
Exclusion reason: Intervention did not occur outdoors or intervention does not meet study's definition of nature.
73. Bae S, Lee S, Lee S, et al. The effect of a multicomponent intervention to promote community activity on cognitive function in older adults with mild cognitive impairment: A randomized controlled trial. *Complement Ther Med*. 2019;42:164-169. doi:10.1016/j.ctim.2018.11.011.  
Exclusion reason: Intervention did not occur outdoors or intervention does not meet study's definition of nature.
74. Bailey AW, Allen G, Herndon J, Demastus C. Cognitive benefits of walking in natural versus built environments. *World Leisure Journal*. 2018;60(4):293-305.  
Exclusion reason: No data collected on symptoms of mental illness.
75. Bailey AW, Cox G, Liguori G. Exercising in the outdoors: A win-win for communities and individuals. *ACSM's Health and Fitness Journal*. 2018;22(2):4-7. doi:10.1249/FIT.0000000000000365.  
Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.
76. Baird MR. *A horticultural therapy program for the elderly: effects on cognition, quality of life, and loneliness*. Mississippi State University; 2016.  
Exclusion reason: Intervention did not occur outdoors.
77. Baklien B, Ytterhus B, Bongaardt R. When everyday life becomes a storm on the horizon: families' experiences of good mental health while hiking in nature. *Anthropol Med*. 2016;23(1):42-53. doi:10.1080/13648470.2015.1056056.  
Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.
78. Ball K, Bauman A, Leslie E, Owen N. Perceived environmental aesthetics and convenience and company are associated with walking for exercise among Australian adults. *Prev Med*. 2001;33(5):434-40.  
Exclusion reason: Intervention did not occur outdoors or intervention does not meet study's definition of nature.
79. Ban R. Rehabilitation effect of gardening therapy to treat chronic schizophrenia patients. *Chinese Nursing Research*. 2001;15(6):327-329.  
Exclusion reason: Intervention did not occur outdoors or intervention does not meet study's definition of nature.
80. Banay RF, James P, Hart JE, et al. Greenness and Depression Incidence among Older Women. *Environ Health Perspect*. 2019;127(2):27001. doi:10.1289/EHP1229.

Exclusion reason: No data collected that clearly defined nature dosage.

81. Bang KS, Lee I, Kim SJ, Song MK, Park SE. The Effects of Urban Forest-walking Program on Health Promotion Behavior, Physical Health, Depression, and Quality of Life: A Randomized Controlled Trial of Office-workers *Journal of Korean Academy of Nursing*. 2016;46(1):140-148. doi:10.4040/jkan.2016.46.1.140.

Exclusion reason: quantitative data not collected (only qualitative data collected); no original data collected; or, data reported NOT usable (i.e. no Means/SD).

82. Bang KS, Lee IS, Kim SJ, Song MK, Park SE. [The Effects of Urban Forest-walking Program on Health Promotion Behavior, Physical Health, Depression, and Quality of Life: A Randomized Controlled Trial of Office-workers]. *Journal of Korean Academy of Nursing*. 2016;46(1):140-8. doi:10.4040/jkan.2016.46.1.140.

Exclusion reason: quantitative data not collected (only qualitative data collected); no original data collected; or, data reported NOT usable (i.e. no Means/SD).

83. Barclay R, Salbach N, Brooks D, et al. Getting older adults OUTdoors (GO-OUT). *Qual Life Res*. 2016;25(1):166-167. doi:10.1007/s11136-016-1390-7.

Exclusion reason: No data collected on symptoms of mental illness.

84. Barclay R, Webber S, Ripat J, et al. Safety and feasibility of an interactive workshop and facilitated outdoor walking group compared to a workshop alone in increasing outdoor walking activity among older adults: a pilot randomized controlled trial. *Pilot & Feasibility Studies*. 2018;4:179. doi:10.1186/s40814-018-0367-4.

Exclusion reason: Wrong outcomes.

85. Barclay R, Webber S, Ripat J, Tate R. Factors associated with community ambulation and social participation after stroke-data from the canadian longitudinal study on aging. *Int J Stroke*. 2018;13(2):63. doi:10.1177/1747493018789543.

Exclusion reason: No data collected that clearly defined nature dosage.

86. Bartfay E, Stewart P, Bartfay W, Papaconstantinou E. Is There an Association between Physical Activity and Sleep in Community-Dwelling Persons with Dementia: An Exploratory Study Using Self-Reported Measures? *Healthcare*. 2019;7(1):05. doi:10.3390/healthcare7010006.

Exclusion reason: Intervention did not occur outdoors or intervention does not meet study's definition of nature.

87. Baur JWR. *Urban Natural Parks in Portland: Nature, Networks, and Community Health*. Oregon State University; 2011.

Exclusion reason: only one time point collected.

88. Bay-Richter C, Träskman-Bendz L, Grahn P, Brundin L. Garden rehabilitation stabilises INF-gamma and IL-2 levels but does not relieve depressive-symptoms. *Brain Behav Immun*. 2011;25:S217. doi:10.1016/j.bbi.2011.07.135.

Exclusion reason: No data collected that clearly defined nature dosage.

89. Bay-Richter C, Träskman-Bendz L, Grahn P, Brundin L. Garden rehabilitation stabilises INF-gamma and IL-2 levels but does not relieve depressive-symptoms. *Neurology Psychiatry and Brain Research*. 2012;18(2):37. doi:10.1016/j.npbr.2012.02.002.  
Exclusion reason: No data collected that clearly defined nature dosage.
90. Beavers AW, Burr K, Li K, et al. Feasibility of a pilot randomized controlled trial to assess health impacts of community gardening. *FASEB J*. 2017;31(1).  
Exclusion reason: quantitative data not collected (only qualitative data collected); no original data collected; or, data reported NOT usable (i.e. no Means/SD).
91. Becker F, Kirmess M, Gunther L, Hvistendahl AK. Intensive aphasia therapy-first results of the Sunnaas constraint induced language therapy program. *Neurorehabil Neural Repair*. 2012;26(4):405. doi:10.1177/1545968312447071.  
Exclusion reason: Intervention did not occur outdoors.
92. Benbow B. Maximizing the use of outdoor gardens in dementia care facilities. *Canadian Nursing Home*. 2014;25(1):4-13.  
Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.
93. Bennett JL. *An examination of therapeutic recreation programs for Veterans with combat-related disabilities and their families*. Indiana University; 2014.  
Exclusion reason: quantitative data not collected (only qualitative data collected); no original data collected; or, data reported NOT usable (i.e. no Means/SD).
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Exclusion reason: No data collected that clearly defined nature dosage.
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Exclusion reason: No data collected that clearly defined nature dosage.
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Exclusion reason: only one time point collected.
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Exclusion reason: Intervention did not occur outdoors or intervention does not meet study's definition of nature.

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Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

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Exclusion reason: Intervention did not occur outdoors.

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Exclusion reason: No data collected on symptoms of mental illness.

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Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

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Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

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Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

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Exclusion reason: No data collected that clearly defined nature dosage.

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Exclusion reason: No data collected that clearly defined nature dosage.

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Exclusion reason: Intervention did not occur outdoors or intervention does not meet study's definition of nature.

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Exclusion reason: No data collected that clearly defined nature dosage.

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Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

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Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

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Exclusion reason: Quantitative data not in article, not provided by author.

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Exclusion reason: Intervention did not occur outdoors.

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Exclusion reason: Intervention did not occur outdoors or intervention does not meet study's definition of nature.

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Exclusion reason: quantitative data not collected (only qualitative data collected); no original data collected; or, data reported NOT usable (i.e. no Means/SD).

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Exclusion reason: No data collected that clearly defined nature dosage.

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Exclusion reason: Did not separate participant group with mental illness or symptoms.

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Exclusion reason: No data collected that clearly defined nature dosage.

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Exclusion reason: quantitative data not collected (only qualitative data collected); no original data collected; or, data reported NOT usable (i.e. no Means/SD).

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Exclusion reason: No data collected that clearly defined nature dosage.

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Exclusion reason: Only one time point collected.

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Exclusion reason: quantitative data not collected (only qualitative data collected); no original data collected; or, data reported NOT usable (i.e. no Means/SD).

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Exclusion reason: No data collected on symptoms of mental illness.

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Exclusion reason: No data collected that clearly defined nature dosage.

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Exclusion reason: No data collected on symptoms of mental illness.

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Exclusion reason: Intervention did not occur outdoors or intervention does not meet study's definition of nature.

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Exclusion reason: Did not separate participant group with mental illness or symptoms.

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Exclusion reason: No data presented on participants' symptoms of mental illness.

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Exclusion reason: quantitative data not collected (only qualitative data collected); no original data collected; or, data reported NOT usable (i.e. no Means/SD).

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Exclusion reason: only one time point collected.

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Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

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Exclusion reason: Intervention did not occur outdoors.

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Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

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Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

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Exclusion reason: No data collected that clearly defined nature dosage.

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Exclusion reason: Intervention did not occur outdoors or intervention does not meet study's definition of nature.

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Exclusion reason: Intervention did not occur outdoors or intervention does not meet study's definition of nature.

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Exclusion reason: Intervention did not occur outdoors or intervention does not meet study's definition of nature.

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Exclusion reason: No data collected that clearly defined nature dosage.

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Exclusion reason: No data presented on participants' symptoms of mental illness.

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Exclusion reason: quantitative data not collected (only qualitative data collected); no original data collected; or, data reported NOT usable (i.e. no Means/SD).

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Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

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Exclusion reason: Wrong intervention.



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Exclusion reason: No data collected that clearly defined nature dosage.
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Exclusion reason: Did not separate participant group with mental illness or symptoms.
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Exclusion reason: No data collected on symptoms of mental illness.
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Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.
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Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.
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Exclusion reason: No data presented on participants' symptoms of mental illness.
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Exclusion reason: Intervention did not occur outdoors or intervention does not meet study's definition of nature.
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Exclusion reason: Intervention did not occur outdoors or intervention does not meet study's definition of nature.

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Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

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Exclusion reason: No data presented on participants' symptoms of mental illness.

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Exclusion reason: No data collected that clearly defined nature dosage.

157. de Bruin S, de Boer B, Beerens H, Buist Y, Verbeek H. Rethinking Dementia Care: The Value of Green Care Farming. *J Am Med Dir Assoc*. 2017;18(3):200-203. doi:10.1016/j.jamda.2016.11.018.

Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

158. de Bruin S, Oosting S, Tobi H, Enders-Slegers M-J, van der Zijpp A, Schols J. Comparing day care at green care farms and at regular day care facilities with regard to their effects on functional performance of community-dwelling older people with dementia. *Dementia: The International Journal of Social Research and Practice*. 2012;11(4):503-519. doi:10.1177/1471301211421074.

Exclusion reason: No data collected that clearly defined nature dosage.

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Exclusion reason: No data collected that clearly defined nature dosage.

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Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

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Exclusion reason: No data collected that clearly defined nature dosage.

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Exclusion reason: Intervention did not occur outdoors.

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Exclusion reason: Quantitative data not in article, not provided by author.

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Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

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Exclusion reason: Wrong patient population.

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Exclusion reason: quantitative data not collected (only qualitative data collected); no original data collected; or, data reported NOT usable (i.e. no Means/SD).

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Exclusion reason: No data presented on participants' symptoms of mental illness.

168. Dowd SB, Davidhizar R. Can mental and physical activities such as chess and gardening help in the prevention and treatment of Alzheimer's? Healthy aging through stimulation of the mind. *J Pract Nurs*. 2003;53(3):11-3.

Exclusion reason: quantitative data not collected (only qualitative data collected); no original data collected; or, data reported NOT usable (i.e. no Means/SD).

169. Dowdall SA. *Roots of the spirit: Interrelationships among ecological actions and attitudes, nature-related exceptional human experiences, spirituality, and well-being*. Institute of Transpersonal Psychology; 1998.

Exclusion reason: No data collected that clearly defined nature dosage.

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Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

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Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

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Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

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Exclusion reason: Intervention did not occur outdoors or intervention does not meet study's definition of nature.

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Exclusion reason: Wrong study design.

175. Esots J. Gardening to improve wellbeing. *Aust Nurs J*. 2012;20(1):26.

Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

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Exclusion reason: No data collected on symptoms of mental illness.

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Exclusion reason: No data collected that clearly defined nature dosage.

178. Faulkner J, Westrupp N, Rousseau J, Lark S. A randomized controlled trial to assess the effect of self-paced walking on task-specific anxiety in cardiac rehabilitation patients. *J Cardiopulm Rehabil Prev*. 2013;33(5):292-6. doi:10.1097/HCR.0b013e3182a0295c.

Exclusion reason: Intervention did not occur outdoors or intervention does not meet study's definition of nature.

179. Fitzsimmons S, Buettner LL. Therapeutic recreation interventions for need-driven dementia-compromised behaviors in community-dwelling elders. *American Journal of Recreation Therapy*. 2012;11(1):19-33. doi:10.5055/ajrt.2012.0013.

Exclusion reason: Intervention did not occur outdoors or intervention does not meet study's definition of nature.

180. Forsyth A, Lysaght R, Aiken A, Cramm H. Wilderness Adventure Program May Help Combat Perceptions of Stigma Among Veterans. *Ecopsychology*. 2020;12(1):8-18. doi:10.1089/eco.2019.0031.

Exclusion reason: Did not separate participant group with mental illness or symptoms.

181. Fortes C, Mastroeni S, Sperati A, et al. Walking outdoors four times weekly for at least 15 minutes is associated with longevity in a cohort of very elderly people. *Ann Nutr Metab*. 2013;63:1014-1015. doi:10.1159/000354245.

Exclusion reason: No data presented on participants' symptoms of mental illness.

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Exclusion reason: No data collected that clearly defined nature dosage.

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Exclusion reason: Intervention did not occur outdoors or intervention does not meet study's definition of nature.

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Exclusion reason: No data collected on symptoms of mental illness.

185. Fung WK. A study of the effectiveness of a horticultural therapy group on the emotional health of cancer patients. *Psychooncology*. 2015;24:266. doi:10.1002/pon.3874.

Exclusion reason: No data collected that clearly defined nature dosage.

186. Gang MG. Effect of the horticultural intervention program on cognitive function, emotion, communication and behavior in the elderly with Alzheimer's disease. *Int Psychogeriatr*. 2013;25:S140. doi:10.1017/S1041610213002160.

Exclusion reason: Intervention did not occur outdoors or intervention does not meet study's definition of nature.

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Exclusion reason: only one time point collected.

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Exclusion reason: Quantitative data not in article, not provided by author.

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Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

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Exclusion reason: Intervention did not occur outdoors or intervention does not meet study's definition of nature.

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Exclusion reason: Wrong study design.

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Exclusion reason: Intervention did not occur outdoors or intervention does not meet study's definition of nature.

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Exclusion reason: Intervention did not occur outdoors or intervention does not meet study's definition of nature.

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Exclusion reason: Intervention did not occur outdoors or intervention does not meet study's definition of nature.

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Exclusion reason: Intervention did not occur outdoors or intervention does not meet study's definition of nature.

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Exclusion reason: quantitative data not collected (only qualitative data collected); no original data collected; or, data reported NOT usable (i.e. no Means/SD).

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Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

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Exclusion reason: No data collected that clearly defined nature dosage.

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Exclusion reason: quantitative data not collected (only qualitative data collected); no original data collected; or, data reported NOT usable (i.e. no Means/SD).

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Exclusion reason: Did not separate participant group with mental illness or symptoms.

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Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

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Exclusion reason: No data presented on participants' symptoms of mental illness.

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Exclusion reason: Intervention did not occur outdoors or intervention does not meet study's definition of nature.

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Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

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Exclusion reason: No data presented on participants' symptoms of mental illness.

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Exclusion reason: Intervention did not occur outdoors or intervention does not meet study's definition of nature.

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Exclusion reason: Intervention did not occur outdoors or intervention does not meet study's definition of nature.

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Exclusion reason: quantitative data not collected (only qualitative data collected); no original data collected; or, data reported NOT usable (i.e. no Means/SD).

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Exclusion reason: Only one time point collected.

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Exclusion reason: No data collected that clearly defined nature dosage.

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Exclusion reason: No data collected that clearly defined nature dosage.

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Exclusion reason: No data collected that clearly defined nature dosage.

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Exclusion reason: No data collected on symptoms of mental illness.

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Exclusion reason: Quantitative data not in article, not provided by author.

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Exclusion reason: Did not separate participant group with mental illness or symptoms.

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Exclusion reason: Quantitative data not in article, not provided by author.

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Exclusion reason: No data collected that clearly defined nature dosage.

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Exclusion reason: Intervention did not occur outdoors or intervention does not meet study's definition of nature.

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Exclusion reason: Intervention did not occur outdoors or intervention does not meet study's definition of nature.

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Exclusion reason: Not within time-frame.

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Exclusion reason: No data collected that clearly defined nature dosage.

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Exclusion reason: Wrong study design.

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The efficacy of horse-riding in the treatment of chronic schizophrenic patients: Experimental results and clinical experiences. *Der Nervenarzt*. 1991;62(5):283-287.

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Exclusion reason: Did not separate participant group with mental illness or symptoms.

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Exclusion reason: No data collected that clearly defined nature dosage.

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Exclusion reason: Intervention did not occur outdoors or intervention does not meet study's definition of nature.

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Exclusion reason: No data collected that clearly defined nature dosage.

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Exclusion reason: Intervention did not occur outdoors or intervention does not meet study's definition of nature.

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Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

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Exclusion reason: No data presented on participants' symptoms of mental illness.

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Exclusion reason: Quantitative data not in article, not provided by author.

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Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

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Exclusion reason: Intervention did not occur outdoors.

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Exclusion reason: No data collected on symptoms of mental illness.

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Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

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Exclusion reason: Quantitative data not in article, not provided by author.

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Exclusion reason: No data presented on participants' symptoms of mental illness.

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Exclusion reason: Quantitative data not in article, not provided by author.

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Exclusion reason: Quantitative data not in article, not provided by author.

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Exclusion reason: quantitative data not collected (only qualitative data collected); no original data collected; or, data reported NOT usable (i.e. no Means/SD).

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Exclusion reason: Did not separate participant group with mental illness or symptoms.

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Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

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Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

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of life and stress based on a Danish national representative survey. *Scandinavian Journal of Public Health*. 2010;38(4):411-7. doi:10.1177/1403494810367468.

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Exclusion reason: Intervention did not occur outdoors.

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Exclusion reason: No data collected on symptoms of mental illness.

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Exclusion reason: quantitative data not collected (only qualitative data collected); no original data collected; or, data reported NOT usable (i.e. no Means/SD).

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Exclusion reason: only one time point collected.

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Exclusion reason: No data presented on participants' symptoms of mental illness.

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Exclusion reason: Intervention did not occur outdoors or intervention does not meet study's definition of nature.

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Exclusion reason: Intervention did not occur outdoors or intervention does not meet study's definition of nature.

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Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

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Exclusion reason: No data collected that clearly defined nature dosage.

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Exclusion reason: Quantitative data not in article, not provided by author.

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Exclusion reason: No data collected on symptoms of mental illness.

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Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

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Exclusion reason: quantitative data not collected (only qualitative data collected); no original data collected; or, data reported NOT usable (i.e. no Means/SD).

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Exclusion reason: Intervention did not occur outdoors or intervention does not meet study's definition of nature.

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Exclusion reason: No data collected on symptoms of mental illness.

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Exclusion reason: Quantitative data not in article, not provided by author.

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Exclusion reason: Quantitative data not collected (only qualitative data collected) or no original data collected.

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Exclusion reason: No data presented on participants' symptoms of mental illness.

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