**Appendix C.** Excluded studies in the last screening (n=282)

Not observational design

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| 1 | van Abbema R, Lakke SE, Reneman MF, van der Schans CP, van Haastert CJ,Geertzen JH, Wittink H. Factors associated with functional capacity test results in patients with non-specific chronic low back pain: a systematic review. J Occup Rehabil. 2011 Dec;21(4):455-73. doi: 10.1007/s10926-011-9306-4. |
| 2 | Adams H, Ellis T, Stanish WD, Sullivan MJ. Psychosocial factors related to return to work following rehabilitation of whiplash injuries. J Occup Rehabil. 2007 Jun;17(2):305-15. |
| 3 | Ang DC, Bair MJ, Damush TM, Wu J, Tu W, Kroenke K. Predictors of pain outcomes in patients with chronic musculoskeletal pain co-morbid with depression: results from a randomized controlled trial. Pain Med. 2010 Apr;11(4):482-91. doi:10.1111/j.1526-4637.2009.00759.x. |
| 4 | Berger M, Farné A, Reilly K, Chaléat-Valayer E. Body image assessment in population with chronic low back pain and evolution after a functional restoration program. Ann Phys Rehabil Med. 2016 Sep;59S:e146. doi: 10.1016/j.rehab.2016.07.326. |
| 5 | Booth J, Moseley GL, Schiltenwolf M, Cashin A, Davies M, Hübscher M. Exercise for chronic musculoskeletal pain: A biopsychosocial approach. Musculoskeletal Care. 2017 Mar 30. doi: 10.1002/msc.1191.  |
| 6 | Liossi C. Attentional biases in chronic pain: do they exist and does it really matter? Pain. 2012 Jan;153(1):9-10. doi: 10.1016/j.pain.2011.10.013. |
| 7 | Buitenhuis J, de Jong PJ. Fear avoidance and illness beliefs in post-traumatic neck pain. Spine (Phila Pa 1976). 2011 Dec 1;36(25 Suppl):S238-43. doi:10.1097/BRS.0b013e3182388400. |
| 8 | Bunzli S, Smith A, Watkins R, Schütze R, O'Sullivan P. What Do People Who Score Highly on the Tampa Scale of Kinesiophobia Really Believe?: A Mixed Methods Investigation in People With Chronic Nonspecific Low Back Pain. Clin J Pain. 2015 Jul;31(7):621-32. doi: 10.1097/AJP.0000000000000143. |
| 9 | Chapman JR, Norvell DC, Hermsmeyer JT, Bransford RJ, DeVine J, McGirt MJ, Lee MJ. Evaluating common outcomes for measuring treatment success for chronic low back pain. Spine (Phila Pa 1976). 2011 Oct 1;36(21 Suppl):S54-68. doi:10.1097/BRS.0b013e31822ef74d. |
| 10 | Coombes BK, Bisset L, Vicenzino B. Cold hyperalgesia associated with poorer prognosis in lateral epicondylalgia: a 1-year prognostic study of physical and psychological factors. Clin J Pain. 2015 Jan;31(1):30-5. doi:10.1097/AJP.0000000000000078. |
| 11 | Helmhout PH, Staal JB, Heymans MW, Harts CC, Hendriks EJ, de Bie RA. Prognostic factors for perceived recovery or functional improvement in non-specific low back pain: secondary analyses of three randomized clinical trials. Eur Spine J. 2010 Apr;19(4):650-9. doi: 10.1007/s00586-009-1254-8. |
| 12 | Heymans MW, van Buuren S, Knol DL, Anema JR, van Mechelen W, de Vet HC. The prognosis of chronic low back pain is determined by changes in pain and disability in the initial period. Spine J. 2010 Oct;10(10):847-56. doi:10.1016/j.spinee.2010.06.005. |
| 13 | Houston MN, Van Lunen BL, Hoch MC. Health-related quality of life in individuals with chronic ankle instability. J Athl Train. 2014 Nov-Dec;49(6):758-63. doi: 10.4085/1062-6050-49.3.54. |
| 14 | Hsu CJ, Meierbachtol A, George SZ, Chmielewski TL. Fear of Reinjury in Athletes. Sports Health. 2017 Mar/Apr;9(2):162-167. doi:10.1177/1941738116666813. |
| 15 | Hudes K. The Tampa Scale of Kinesiophobia and neck pain, disability and range of motion: a narrative review of the literature. J Can Chiropr Assoc. 2011Sep;55(3):222-32. |
| 16 | Klaber Moffett JA, Carr J, Howarth E. High fear-avoiders of physical activity benefit from an exercise program for patients with back pain. Spine (Phila Pa 1976). 2004 Jun 1;29(11):1167-72; discussion 1173. |
| 17 | Kromer TO, Sieben JM, de Bie RA, Bastiaenen CH. Influence of fear-avoidance beliefs on disability in patients with subacromial shoulder pain in primary care: a secondary analysis. Phys Ther. 2014 Dec;94(12):1775-84. doi: 10.2522/ptj.20130587. |
| 18 | Lakke SE, Wittink H, Geertzen JH, van der Schans CP, Reneman MF. Factors that affect functional capacity in patients with musculoskeletal pain: a Delphi study among scientists, clinicians, and patients. Arch Phys Med Rehabil. 2012Mar;93(3):446-57. doi: 10.1016/j.apmr.2011.10.016. |
| 19 | Luthi F, Wolfensberger A, Vuistiner P, Konzelmann M, Plomb-Holmes C, Leger B. Clinician and patient-reported outcomes are associated with psychological factors in chronic shoulder pain patients. Ann Phys Rehabil Med. 2016 Sep;59S:e63. doi:10.1016/j.rehab.2016.07.146. |
| 20 | Maaoui R, Bahlouli E, Ksibi I, Khiari H, Rahali H. The importance of fear, beliefs, catastrophizing and kinesiophobia in chronic low-back pain militaryrehabilitation. Ann Phys Rehabil Med. 2016 Sep;59S:e96-e97. doi:10.1016/j.rehab.2016.07.219. |
| 21 | A. Malfliet, J. Van Oosterwijck, M. Meeus, B. Cagnie, L. Danneels, M. Dolphens, R. Buyl, J. Nijs. Kinesiophobia and maladaptive coping strategies prevent improvements in pain catastrophizing following pain neuroscience education in fibromyalgia/chronic fatigue syndrome: Pooled results from 2 randomized controlled trials. Musculoskeletal science & practice 2016; 25: e135-e136. |
| 22 | Mallows A, Debenham J, Walker T, Littlewood C. Association of psychologicalvariables and outcome in tendinopathy: a systematic review. Br J Sports Med. 2017May;51(9):743-748. doi: 10.1136/bjsports-2016-096154. |
| 23 | Martinez-Calderon J, Struyf F, Meeus M, Morales-Ascencio JM, Luque-Suarez A.Influence of psychological factors on the prognosis of chronic shoulder pain:protocol for a prospective cohort study. BMJ Open. 2017 Mar 6;7(3):e012822. doi: 10.1136/bmjopen-2016-012822. |
| 24 | Miró J, Nieto R, Huguet A. Predictive factors of chronic pain and disabilityin whiplash: a Delphi poll. Eur J Pain. 2008 Jan;12(1):30-47. |
| 25 | Monticone M, Ambrosini E, Cedraschi C, Rocca B, Fiorentini R, Restelli M,Gianola S, Ferrante S, Zanoli G, Moja L. Cognitive-behavioral Treatment forSubacute and Chronic Neck Pain: A Cochrane Review. Spine (Phila Pa 1976). 2015Oct 1;40(19):1495-504. doi: 10.1097/BRS.0000000000001052. |
| 26 | Morgounovski J, Vuistiner P, Léger B, Luthi F. The fear-avoidance model topredict return to work after an orthopedic trauma. Ann Phys Rehabil Med. 2016Sep;59S:e110-e111. doi: 10.1016/j.rehab.2016.07.246. |
| 27 | Morone NE, Karp JF, Lynch CS, Bost JE, El Khoudary SR, Weiner DK. Impact ofchronic musculoskeletal pathology on older adults: a study of differences betweenknee OA and low back pain. Pain Med. 2009 May-Jun;10(4):693-701. doi:10.1111/j.1526-4637.2009.00565.x. |
| 28 | Nagarajan M, Nair MR. Importance of fear-avoidance behavior in chronicnon-specific low back pain. J Back Musculoskelet Rehabil. 2010;23(2):87-95. doi: 10.3233/BMR-2010-0249. |
| 29 | Nelson N, Churilla JR. Physical activity, fear avoidance, and chronicnon-specific pain: A narrative review. J Bodyw Mov Ther. 2015 Jul;19(3):494-9.doi: 10.1016/j.jbmt.2015.02.001. |
| 30 | Nijs J, Roussel N, Van Oosterwijck J, De Kooning M, Ickmans K, Struyf F, MeeusM, Lundberg M. Fear of movement and avoidance behaviour toward physical activity in chronic-fatigue syndrome and fibromyalgia: state of the art and implicationsfor clinical practice. Clin Rheumatol. 2013 Aug;32(8):1121-9. doi:10.1007/s10067-013-2277-4. |
| 31 | Panken AM, Heymans MW, van Oort L, Verhagen AP. CLINICAL PROGNOSTIC FACTORSFOR PATIENTS WITH ANTERIOR KNEE PAIN IN PHYSICAL THERAPY; A SYSTEMATIC REVIEW.Int J Sports Phys Ther. 2015 Dec;10(7):929-45.  |
| 32 | R. De Pauw\*, I. Coppieters, L. Danneels, B. Cagnie. Infuence of kinesiophobia and symptoms of central sensitization on motor behaviour in patients with chronic neck pain. Manual Therapy 2016; 25:e57-e169. |
| 33 | Pearson I, Reichert A, De Serres SJ, Dumas JP, Côté JN. Maximal voluntaryisometric neck strength deficits in adults with whiplash-associated disorders andassociation with pain and fear of movement. J Orthop Sports Phys Ther. 2009Mar;39(3):179-87. doi: 10.2519/jospt.2009.2950. |
| 34 | Pfingsten M, Leibing E, Harter W, Kröner-Herwig B, Hempel D, Kronshage U,Hildebrandt J. Fear-avoidance behavior and anticipation of pain in patients with chronic low back pain: a randomized controlled study. Pain Med. 2001Dec;2(4):259-66. |
| 35 | Pincus T, Vogel S, Burton AK, Santos R, Field AP. Fear avoidance and prognosisin back pain: a systematic review and synthesis of current evidence. ArthritisRheum. 2006 Dec;54(12):3999-4010. |
| 36 | Pincus T, Smeets RJ, Simmonds MJ, Sullivan MJ. The fear avoidance modeldisentangled: improving the clinical utility of the fear avoidance model. Clin J Pain. 2010 Nov-Dec;26(9):739-46. doi: 10.1097/AJP.0b013e3181f15d45. |
| 37 | Rabey M, Smith A, Beales D, Slater H, O'Sullivan P. Differing Psychologically Derived Clusters in People With Chronic Low Back Pain are Associated WithDifferent Multidimensional Profiles. Clin J Pain. 2016 Dec;32(12):1015-1027. |
| 38 | Ramond A, Bouton C, Richard I, Roquelaure Y, Baufreton C, Legrand E, Huez JF. Psychosocial risk factors for chronic low back pain in primary care--a systematicreview. Fam Pract. 2011 Feb;28(1):12-21. doi: 10.1093/fampra/cmq072. |
| 39 | Raudenska J, Javurkova A, Kozak J. Fear of pain and movement in a patient withmusculoskeletal chronic pain. Neuro Endocrinol Lett. 2013;34(6):514-7. |
| 40 | Richmond J. Multi-factorial causative model for back pain management; relatingcausative factors and mechanisms to injury presentations and designing time- and cost effective treatment thereof. Med Hypotheses. 2012 Aug;79(2):232-40. doi:10.1016/j.mehy.2012.04.047. |
| 41 | Sandlund J, Röijezon U, Björklund M, Djupsjöbacka M. Acuity of goal-directedarm movements to visible targets in chronic neck pain. J Rehabil Med. 2008May;40(5):366-74. doi: 10.2340/16501977-0175. |
| 42 | Silbernagel KG, Brorsson A, Lundberg M. The majority of patients with Achillestendinopathy recover fully when treated with exercise alone: a 5-year follow-up. Am J Sports Med. 2011 Mar;39(3):607-13. doi: 10.1177/0363546510384789. |
| 43 | Smeets RJ, Wittink H, Hidding A, Knottnerus JA. Do patients with chronic lowback pain have a lower level of aerobic fitness than healthy controls?: are pain,disability, fear of injury, working status, or level of leisure time activityassociated with the difference in aerobic fitness level? Spine (Phila Pa 1976).2006 Jan 1;31(1):90-7; discussion 98. |
| 44 | Smeets RJ, van Geel KD, Verbunt JA. Is the fear avoidance model associatedwith the reduced level of aerobic fitness in patients with chronic low back pain?Arch Phys Med Rehabil. 2009 Jan;90(1):109-17. doi: 10.1016/j.apmr.2008.07.009. |
| 45 | Maísa Soares G, Rizzatti-Barbosa CM. Chronicity factors of temporomandibulardisorders: a critical review of the literature. Braz Oral Res. 2015;29. pii:S1806-83242015000100300. doi: 10.1590/1807-3107BOR-2015.vol29.0018. |
| 46 | Söderlund A. The role of educational and learning approaches in rehabilitationof whiplash-associated disorders in lessening the transition to chronicity. Spine(Phila Pa 1976). 2011 Dec 1;36(25 Suppl):S280-5. doi:10.1097/BRS.0b013e3182388220. |
| 47 | Sullivan MJ, Adams H, Tripp D, Stanish WD. Stage of chronicity and treatmentresponse in patients with musculoskeletal injuries and concurrent symptoms ofdepression. Pain. 2008 Mar;135(1-2):151-9. |
| 48 | Turk DC, Wilson HD. Fear of pain as a prognostic factor in chronic pain:conceptual models, assessment, and treatment implications. Curr Pain HeadacheRep. 2010 Apr;14(2):88-95. doi: 10.1007/s11916-010-0094-x. |
| 49 | Vangronsveld K, Peters M, Goossens M, Linton S, Vlaeyen J. Applying thefear-avoidance model to the chronic whiplash syndrome. Pain. 2007Oct;131(3):258-61. |
| 50 | Verkerk K, Luijsterburg PA, Miedema HS, Pool-Goudzwaard A, Koes BW. Prognosticfactors for recovery in chronic nonspecific low back pain: a systematic review.Phys Ther. 2012 Sep;92(9):1093-108. doi: 10.2522/ptj.20110388. |
| 51 | Verkerk K, Luijsterburg PA, Ronchetti I, Miedema HS, Pool-Goudzwaard A, vanWingerden JP, Koes BW. Course and prognosis of recovery for chronic non-specific low back pain: design, therapy program and baseline data of a prospective cohort study. BMC Musculoskelet Disord. 2011 Nov 2;12:252. doi:10.1186/1471-2474-12-252. |
| 52 | Vincent HK, Adams MC, Vincent KR, Hurley RW. Musculoskeletal pain, fearavoidance behaviors, and functional decline in obesity: potential interventionsto manage pain and maintain function. Reg Anesth Pain Med. 2013Nov-Dec;38(6):481-91. doi: 10.1097/AAP.0000000000000013. |
| 53 | Vincent HK, Seay AN, Montero C, Conrad BP, Hurley RW, Vincent KR.Kinesiophobia and fear-avoidance beliefs in overweight older adults with chronic low-back pain: relationship to walking endurance--part II. Am J Phys Med Rehabil.2013 May;92(5):439-45. doi: 10.1097/PHM.0b013e318287633c. |
| 54 | Vihstadt C, Maiers M, Westrom K, Bronfort G, Evans R, Hartvigsen J, Schulz C. Short term treatment versus long term management of neck and back disability inolder adults utilizing spinal manipulative therapy and supervised exercise: aparallel-group randomized clinical trial evaluating relative effectiveness andharms. Chiropr Man Therap. 2014 Jul 23;22:26. doi: 10.1186/s12998-014-0026-7. |
| 55 | Vlaeyen JW, Kole-Snijders AM, Rotteveel AM, Ruesink R, Heuts PH. The role offear of movement/(re)injury in pain disability. J Occup Rehabil. 1995Dec;5(4):235-52. doi: 10.1007/BF02109988. |
| 56 | Vlaeyen JW, Crombez G. Fear of movement/(re)injury, avoidance and paindisability in chronic low back pain patients. Man Ther. 1999 Nov;4(4):187-95. |
| 57 | Wertli MM, Rasmussen-Barr E, Held U, Weiser S, Bachmann LM, Brunner F.Fear-avoidance beliefs-a moderator of treatment efficacy in patients with lowback pain: a systematic review. Spine J. 2014 Nov 1;14(11):2658-78. doi:10.1016/j.spinee.2014.02.033. |
| 58 | Wertli MM, Rasmussen-Barr E, Weiser S, Bachmann LM, Brunner F. The role offear avoidance beliefs as a prognostic factor for outcome in patients withnonspecific low back pain: a systematic review. Spine J. 2014 May1;14(5):816-36.e4. doi: 10.1016/j.spinee.2013.09.036. |
| 59 | Wicksell RK, Olsson GL, Hayes SC. Psychological flexibility as a mediator ofimprovement in Acceptance and Commitment Therapy for patients with chronic painfollowing whiplash. Eur J Pain. 2010 Nov;14(10):1059.e1-1059.e11. doi:10.1016/j.ejpain.2010.05.001. |
| 60 | Wideman TH, Adams H, Sullivan MJ. A prospective sequential analysis of thefear-avoidance model of pain. Pain. 2009 Sep;145(1-2):45-51. doi:10.1016/j.pain.2009.04.022. |
| 61 | Woby SR, Roach NK, Urmston M, Watsond PJ. Outcome following a physiotherapist-led intervention for chronic low back pain: the important role of cognitive processes. Physiotherapy 2008; 94(2): 115-124. |

Not chronic musculoskeletal pain

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| 1 | Verwoerd AJ, Luijsterburg PA, Koes BW, el Barzouhi A, Verhagen AP. DoesKinesiophobia Modify the Effects of Physical Therapy on Outcomes in Patients WithSciatica in Primary Care? Subgroup Analysis From a Randomized Controlled Trial.Phys Ther. 2015 Sep;95(9):1217-23. doi: 10.2522/ptj.20140458. |
| 2 | Archer KR, Abraham CM, Obremskey WT. Psychosocial Factors Predict Pain andPhysical Health After Lower Extremity Trauma. Clin Orthop Relat Res. 2015Nov;473(11):3519-26. doi: 10.1007/s11999-015-4504-6. |
| 3 | Asenlöf P, Söderlund A. A further investigation of the importance of paincognition and behaviour in pain rehabilitation: longitudinal data suggestdisability and fear of movement are most important. Clin Rehabil. 2010May;24(5):422-30. doi: 10.1177/0269215509353264. |
| 4 | Beales D, Lutz A, Thompson J, Wand BM, O'Sullivan P. Disturbed bodyperception, reduced sleep, and kinesiophobia in subjects with pregnancy-relatedpersistent lumbopelvic pain and moderate levels of disability: An exploratorystudy. Man Ther. 2016 Feb;21:69-75. doi: 10.1016/j.math.2015.04.016. |
| 5 | Bousema EJ, Verbunt JA, Seelen HA, Vlaeyen JW, Knottnerus JA. Disuse andphysical deconditioning in the first year after the onset of back pain. Pain.2007 Aug;130(3):279-86.  |
| 6 | Buitenhuis J, Jaspers JP, Fidler V. Can kinesiophobia predict the duration of neck symptoms in acute whiplash? Clin J Pain. 2006 Mar-Apr;22(3):272-7. |
| 7 | Calley DQ, Jackson S, Collins H, George SZ. Identifying patient fear-avoidancebeliefs by physical therapists managing patients with low back pain. J OrthopSports Phys Ther. 2010 Dec;40(12):774-83. doi: 10.2519/jospt.2010.3381.  |
| 8 | Carriere JS, Thibault P, Milioto M, Sullivan MJ. Expectancies Mediate theRelations Among Pain Catastrophizing, Fear of Movement, and Return to WorkOutcomes After Whiplash Injury. J Pain. 2015 Dec;16(12):1280-7. doi:10.1016/j.jpain.2015.09.001. |
| 9 | Cederbom S, Söderlund A, Denison E, von Heideken Wagert P. Chronic pain among older women living alone. A study focusing on disability and morale. European Journal of Physiotherapy 2014; 16:139-150. |
| 10 | Celletti C, Castori M, La Torre G, Camerota F. Evaluation of kinesiophobia andits correlations with pain and fatigue in joint hypermobilitysyndrome/Ehlers-Danlos syndrome hypermobility type. Biomed Res Int.2013;2013:580460. doi: 10.1155/2013/580460. |
| 11 | Crombez G, Eccleston C, Baeyens F, van Houdenhove B, van den Broeck A.Attention to chronic pain is dependent upon pain-related fear. J Psychosom Res.1999 Nov;47(5):403-10. |
| 12 | Davis DS, Mancinelli CA, Petronis JJ, Bensenhaver C, McClintic T, Nelson G.Variables associated with level of disability in working individuals withnonacute low back pain: a cross-sectional investigation. J Orthop Sports PhysTher. 2013 Feb;43(2):97-104. doi: 10.2519/jospt.2013.4382. |
| 13 | Denison E, Asenlöf P, Lindberg P. Self-efficacy, fear avoidance, and painintensity as predictors of disability in subacute and chronic musculoskeletalpain patients in primary health care. Pain. 2004 Oct;111(3):245-52. |
| 14 | Denison E, Asenlöf P, Sandborgh M, Lindberg P. Musculoskeletal pain in primaryhealth care: subgroups based on pain intensity, disability, self-efficacy, andfear-avoidance variables. J Pain. 2007 Jan;8(1):67-74. |
| 15 | Feleus A, van Dalen T, Bierma-Zeinstra SM, Bernsen RM, Verhaar JA, Koes BW,Miedema HS. Kinesiophobia in patients with non-traumatic arm, neck and shouldercomplaints: a prospective cohort study in general practice. BMC MusculoskeletDisord. 2007 Nov 28;8:117. |
| 16 | George SZ, Dover GC, Fillingim RB. Fear of pain influences outcomes afterexercise-induced delayed onset muscle soreness at the shoulder. Clin J Pain. 2007Jan;23(1):76-84. |
| 17 | George SZ, Parr JJ, Wallace MR, Wu SS, Borsa PA, Dai Y, Fillingim RB.Biopsychosocial influence on exercise-induced injury: genetic and psychologicalcombinations are predictive of shoulder pain phenotypes. J Pain. 2014Jan;15(1):68-80. doi: 10.1016/j.jpain.2013.09.012. |
| 18 | George SZ, Parr JJ, Wallace MR, Wu SS, Borsa PA, Dai Y, Fillingim RB.Inflammatory genes and psychological factors predict induced shoulder painphenotype. Med Sci Sports Exerc. 2014 Oct;46(10):1871-81. doi:10.1249/MSS.0000000000000328. |
| 19 | George SZ, Beneciuk JM. Psychological predictors of recovery from low backpain: a prospective study. BMC Musculoskelet Disord. 2015 Mar 7;16:49. doi:10.1186/s12891-015-0509-2. |
| 20 | Gheldof EL, Vinck J, Vlaeyen JW, Hidding A, Crombez G. The differential roleof pain, work characteristics and pain-related fear in explaining back pain andsick leave in occupational settings. Pain. 2005 Jan;113(1-2):71-81. |
| 21 | Gheldof EL, Vinck J, Van den Bussche E, Vlaeyen JW, Hidding A, Crombez G. Painand pain-related fear are associated with functional and social disability in an occupational setting: evidence of mediation by pain-related fear. Eur J Pain.2006 Aug;10(6):513-25. |
| 22 | Gheldof EL, Vinck J, Vlaeyen JW, Hidding A, Crombez G. Development of andrecovery from short- and long-term low back pain in occupational settings: aprospective cohort study. Eur J Pain. 2007 Nov;11(8):841-54. |
| 23 | Gregg CD, McIntosh G, Hall H, Watson H, Williams D, Hoffman CW. Therelationship between the Tampa Scale of Kinesiophobia and low back painrehabilitation outcomes. Spine J. 2015 Dec 1;15(12):2466-71. doi:10.1016/j.spinee.2015.08.018. |
| 24 | Hållstam A, Löfgren M, Svensén C, Stålnacke BM. Patients with chronic pain:One-year follow-up of a multimodal rehabilitation programme at a pain clinic.Scand J Pain. 2016 Jan;10:36-42. doi: 10.1016/j.sjpain.2015.08.008. |
| 25 | Haugen AJ, Grøvle L, Brox JI, Natvig B, Grotle M. Pain-related fear andfunctional recovery in sciatica: results from a 2-year observational study. JPain Res. 2016 Oct 31;9:925-931. eCollection 2016. |
| 26 | Karayannis NV, Smeets RJ, van den Hoorn W, Hodges PW. Fear of Movement IsRelated to Trunk Stiffness in Low Back Pain. PLoS One. 2013 Jun 27;8(6):e67779.doi: 10.1371/journal.pone.0067779. |
| 27 | Karels CH, Bierma-Zeinstra SM, Burdorf A, Verhagen AP, Nauta AP, Koes BW.Social and psychological factors influenced the course of arm, neck and shoulder complaints. J Clin Epidemiol. 2007 Aug;60(8):839-48. |
| 28 | Keijsers E, Feleus A, Miedema HS, Koes BW, Bierma-Zeinstra SM. Psychosocialfactors predicted nonrecovery in both specific and nonspecific diagnoses at arm, neck, and shoulder. J Clin Epidemiol. 2010 Dec;63(12):1370-9. doi:10.1016/j.jclinepi.2010.01.015. |
| 29 | Leeuw M, Houben RM, Severeijns R, Picavet HS, Schouten EG, Vlaeyen JW.Pain-related fear in low back pain: a prospective study in the generalpopulation. Eur J Pain. 2007 Apr;11(3):256-66.  |
| 30 | Lentz TA, Barabas JA, Day T, Bishop MD, George SZ. The relationship of painintensity, physical impairment, and pain-related fear to function in patientswith shoulder pathology. J Orthop Sports Phys Ther. 2009 Apr;39(4):270-7. doi:10.2519/jospt.2009.2879. |
| 31 | Leonhardt C, Lehr D, Chenot JF, Keller S, Luckmann J, Basler HD, Baum E,Donner-Banzhoff N, Pfingsten M, Hildebrandt J, Kochen MM, Becker A. Arefear-avoidance beliefs in low back pain patients a risk factor for low physicalactivity or vice versa? A cross-lagged panel analysis. Psychosoc Med. 2009 Apr29;6:Doc01. doi: 10.3205/psm000057. |
| 32 | Lundberg M, Larsson M, Ostlund H, Styf J. Kinesiophobia among patients withmusculoskeletal pain in primary healthcare. J Rehabil Med. 2006 Jan;38(1):37-43. |
| 33 | Mankovsky-Arnold T, Wideman TH, Larivière C, Sullivan MJ. Measures ofspontaneous and movement-evoked pain are associated with disability in patientswith whiplash injuries. J Pain. 2014 Sep;15(9):967-75. doi:10.1016/j.jpain.2014.06.010. |
| 34 | Mazaheri M, Heidari E, Mostamand J, Negahban H, van Dieen JH. Competingeffects of pain and fear of pain on postural control in low back pain? Spine(Phila Pa 1976). 2014 Dec 1;39(25):E1518-23. doi: 10.1097/BRS.0000000000000605. |
| 35 | Meulders A, Vansteenwegen D, Vlaeyen JW. The acquisition of fear ofmovement-related pain and associative learning: a novel pain-relevant human fear conditioning paradigm. Pain. 2011 Nov;152(11):2460-9. doi:10.1016/j.pain.2011.05.015. |
| 36 | Miedema HS, Feleus A, Bierma-Zeinstra SM, Hoekstra T, Burdorf A, Koes BW.Disability Trajectories in Patients With Complaints of Arm, Neck, and Shoulder(CANS) in Primary Care: Prospective Cohort Study. Phys Ther. 2016Jul;96(7):972-84. doi: 10.2522/ptj.20150226. |
| 37 | Morsø L, Kent P, Albert HB, Manniche C. Is the psychosocial profile of people with low back pain seeking care in Danish primary care different from those insecondary care? Man Ther. 2013 Feb;18(1):54-9. doi: 10.1016/j.math.2012.07.002. |
| 38 | Moseley GL, Zalucki N, Birklein F, Marinus J, van Hilten JJ, Luomajoki H.Thinking about movement hurts: the effect of motor imagery on pain and swellingin people with chronic arm pain. Arthritis Rheum. 2008 May 15;59(5):623-31. doi: 10.1002/art.23580. |
| 39 | Nederhand MJ, Ijzerman MJ, Hermens HJ, Turk DC, Zilvold G. Predictive value offear avoidance in developing chronic neck pain disability: consequences forclinical decision making. Arch Phys Med Rehabil. 2004 Mar;85(3):496-501. |
| 40 | Nederhand MJ, Hermens HJ, Ijzerman MJ, Groothuis KG, Turk DC. The effect offear of movement on muscle activation in posttraumatic neck pain disability. ClinJ Pain. 2006 Jul-Aug;22(6):519-25. |
| 41 | Nicholas MK, Coulston CM, Asghari A, Malhi GS. Depressive symptoms in patientswith chronic pain. Med J Aust. 2009 Apr 6;190(7 Suppl):S66-70. |
| 42 | Nieto R, Miró J, Huguet A. The fear-avoidance model in whiplash injuries. Eur J Pain. 2009 May;13(5):518-23. doi: 10.1016/j.ejpain.2008.06.005. |
| 43 | Parr JJ, Borsa PA, Fillingim RB, Tillman MD, Manini TM, Gregory CM, George SZ.Pain-related fear and catastrophizing predict pain intensity and disabilityindependently using an induced muscle injury model. J Pain. 2012 Apr;13(4):370-8.doi: 10.1016/j.jpain.2011.12.011. |
| 44 | Parr J, Borsa P, Fillingim R, Kaiser K, Tillman MD, Manini TM, Gregory C,George S. Psychological influences predict recovery following exercise inducedshoulder pain. Int J Sports Med. 2014 Mar;35(3):232-7. doi:10.1055/s-0033-1345179. |
| 45 | Pedler A, Kamper SJ, Sterling M. Addition of posttraumatic stress and sensory hypersensitivity more accurately estimates disability and pain than fearavoidance measures alone after whiplash injury. Pain. 2016 Aug;157(8):1645-54.doi: 10.1097/j.pain.0000000000000564. |
| 46 | Perrot S, Trouvin AP, Rondeau V, Chartier I, Arnaud R, Milon JY, Pouchain D.Kinesiophobia and physical therapy-related pain in musculoskeletal pain: Anational multicenter cohort study on patients and their general physicians. JointBone Spine. 2017 Jan 3. pii: S1297-319X(16)30251-2. doi:10.1016/j.jbspin.2016.12.014. |
| 47 | Perry EV, Francis AJ. Self-efficacy, pain-related fear, and disability in aheterogeneous pain sample. Pain Manag Nurs. 2013 Dec;14(4):e124-34. doi:10.1016/j.pmn.2011.09.001. |
| 48 | Pedler A, Kamper SJ, Maujean A, Sterling M. Investigating the Fear AvoidanceModel in People with Whiplash: The Association between Fear of Movement and invivo Activity. Clin J Pain. 2017 Jun 6. doi: 10.1097/AJP.0000000000000524. |
| 49 | Sorbi MJ, Peters ML, Kruise DA, Maas CJ, Kerssens JJ, Verhaak PF, Bensing JM. Electronic momentary assessment in chronic pain I: psychological pain responsesas predictors of pain intensity. Clin J Pain. 2006 Jan;22(1):55-66. |
| 50 | Sterling M, Kenardy J, Jull G, Vicenzino B. The development of psychologicalchanges following whiplash injury. Pain. 2003 Dec;106(3):481-9. |
| 51 | Swinkels-Meewisse IE, Roelofs J, Schouten EG, Verbeek AL, Oostendorp RA,Vlaeyen JW. Fear of movement/(re)injury predicting chronic disabling low backpain: a prospective inception cohort study. Spine (Phila Pa 1976). 2006 Mar15;31(6):658-64. |
| 52 | Vaegter HB, Graven-Nielsen T. Pain modulatory phenotypes differentiatesubgroups with different clinical and experimental pain sensitivity. Pain. 2016Jul;157(7):1480-8. doi: 10.1097/j.pain.0000000000000543. |
| 53 | Verwoerd AJ, Luijsterburg PA, Koes BW, el Barzouhi A, Verhagen AP. DoesKinesiophobia Modify the Effects of Physical Therapy on Outcomes in Patients WithSciatica in Primary Care? Subgroup Analysis From a Randomized Controlled Trial.Phys Ther. 2015 Sep;95(9):1217-23. doi: 10.2522/ptj.20140458. |
| 54 | Wakaizumi K, Yamada K, Oka H, Kosugi S, Morisaki H, Shibata M, Matsudaira K.Fear-avoidance beliefs are independently associated with the prevalence ofchronic pain in Japanese workers. J Anesth. 2017 Apr;31(2):255-262. doi:10.1007/s00540-016-2303-1. |
| 55 | Yang Z, Jackson T, Chen H. Effects of chronic pain and pain-related fear onorienting and maintenance of attention: an eye movement study. J Pain. 2013Oct;14(10):1148-57. doi: 10.1016/j.jpain.2013.04.017. |
| 56 | Gil-Martínez A, Navarro-Fernández G, Mangas-Guijarro MÁ, Lara-Lara M, López-López A, Fernández-Carnero J, La Touche R. Comparison Between Chronic Migraine and Temporomandibular Disorders in Pain-Related Disability and Fear-Avoidance Behaviors. Pain Med. 2017 May 29. doi: 10.1093/pm/pnx127. |
| 57 | [Gil-Martínez](https://www.hindawi.com/30645932/) A, [Grande-Alonso](https://www.hindawi.com/36519190/) M,[La Touche](https://www.hindawi.com/64275485/) R, Lara-Lara M, [López-López](https://www.hindawi.com/32615653/) A,  [Fernández-Carnero](https://www.hindawi.com/50580927/) J.Psychosocial and Somatosensory Factors in Women with Chronic Migraine and Painful Temporomandibular Disorders. Pain research and management2016; 1-9. |
| 58 | Gil-Martínez A, Grande-Alonso M, López-de-Uralde-Villanueva I, López-López A, Fernández-Carnero J, La Touche R. Chronic Temporomandibular Disorders: disability, pain intensity and fear of movement. J Headache Pain. 2016;17(1):103. |

Not association between kinesiophobia and pain intensity, pain severity, disability, and/or quality of life

|  |  |
| --- | --- |
| 1 | Abboud J, Nougarou F, Pagé I, Cantin V, Massicotte D, Descarreaux M. Trunkmotor variability in patients with non-specific chronic low back pain. Eur J ApplPhysiol. 2014 Dec;114(12):2645-54. doi: 10.1007/s00421-014-2985-8. |
| 2 | Boonstra AM, Reneman MF, Schiphorst Preuper HR, Waaksma BR, Stewart RE.Differences between patients with chronic musculoskeletal pain treated in aninpatient or an outpatient multidisciplinary rehabilitation program. Int JRehabil Res. 2014 Jun;37(2):187-91. doi: 10.1097/MRR.0000000000000047. |
| 3 | Cheung J, Kajaks T, Macdermid JC. The relationship between neck pain andphysical activity. Open Orthop J. 2013 Sep 20;7:521-9. doi:10.2174/1874325001307010521. |
| 4 | Combs MA, Thorn BE. Yoga attitudes in chronic low back pain: Roles ofcatastrophizing and fear of movement. Complement Ther Clin Pract. 2015Aug;21(3):160-5. doi: 10.1016/j.ctcp.2015.06.006. |
| 5 | Demoulin C, Verbunt JA, Winkens B, Knottnerus JA, Smeets RJ. Usefulness ofperceived level of exertion in patients with chronic low back pain attending aphysical training programme. Disabil Rehabil. 2010;32(3):216-22. doi:10.3109/09638280903071842. |
| 6 | Demoulin C, Huijnen IP, Somville PR, Grosdent S, Salamun I, Crielaard JM,Vanderthommen M, Volders S. Relationship between different measures ofpain-related fear and physical capacity of the spine in patients with chronic lowback pain. Spine J. 2013 Sep;13(9):1039-47. doi: 10.1016/j.spinee.2013.02.037. |
| 7 | Dimitriadis Z, Kapreli E, Strimpakos N, Oldham J. Hypocapnia in patients with chronic neck pain: association with pain, muscle function, and psychologicstates. Am J Phys Med Rehabil. 2013 Sep;92(9):746-54. doi:10.1097/PHM.0b013e31829e74f7. |
| 8 | Elfving B, Asell M, Ropponen A, Alexanderson K. What factors predict full orpartial return to work among sickness absentees with spinal pain participating inrehabilitation? Disabil Rehabil. 2009;31(16):1318-27. doi:10.1080/09638280802572965. |
| 9 | Helmus M, Schiphorst Preuper HR, Hof AL, Geertzen JH, Reneman MF.Psychological factors unrelated to activity level in patients with chronicmusculoskeletal pain. Eur J Pain. 2012 Sep;16(8):1158-65. doi:10.1002/j.1532-2149.2011.00109.x. |
| 10 | Jacobs JV, Roy CL, Hitt JR, Popov RE, Henry SM. Neural mechanisms andfunctional correlates of altered postural responses to perturbed standing balancewith chronic low back pain. Neuroscience. 2016 Dec 17;339:511-524. doi:10.1016/j.neuroscience.2016.10.032. |
| 11 | Larsson C, Ekvall Hansson E, Sundquist K, Jakobsson U. Impact of paincharacteristics and fear-avoidance beliefs on physical activity levels amongolder adults with chronic pain: a population-based, longitudinal study. BMCGeriatr. 2016 Feb 24;16:50. doi: 10.1186/s12877-016-0224-3. |
| 12 | Ledoux E, Dubois JD, Descarreaux M. Physical and psychosocial predictors offunctional trunk capacity in older adults with and without low back pain. JManipulative Physiol Ther. 2012 Jun;35(5):338-45. doi:10.1016/j.jmpt.2012.04.007. |
| 13 | Lopez-de-Uralde-Villanueva I, Beltran-Alacreu H, Fernandez-Carnero J,Kindelan-Calvo P, La Touche R. Widespread Pressure Pain Hyperalgesia in ChronicNonspecific Neck Pain with Neuropathic Features: A Descriptive Cross-SectionalStudy. Pain Physician. 2016 Feb;19(2):77-88. |
| 14 | Lundberg M, Styf J. Kinesiophobia among physiological overusers withmusculoskeletal pain. Eur J Pain. 2009 Jul;13(6):655-9. doi:10.1016/j.ejpain.2008.08.004. |
| 15 | Massé-Alarie H, Beaulieu LD, Preuss R, Schneider C. Influence of chronic lowback pain and fear of movement on the activation of the transversely orientedabdominal muscles during forward bending. J Electromyogr Kinesiol. 2016Apr;27:87-94. doi: 10.1016/j.jelekin.2016.02.004.  |
| 16 | Meeus M, Ickmans K, Struyf F, Kos D, Lambrecht L, Willekens B, Cras P, Nijs J.What is in a name? Comparing diagnostic criteria for chronic fatigue syndromewith or without fibromyalgia. Clin Rheumatol. 2016 Jan;35(1):191-203. doi:10.1007/s10067-014-2793-x. |
| 17 | Meier ML, Stämpfli P, Vrana A, Humphreys BK, Seifritz E, Hotz-Boendermaker S. Neural Correlates of Fear of Movement in Patients with Chronic Low Back Pain vs. Pain-Free Individuals. Front Hum Neurosci. 2016 Jul 26;10:386. doi:10.3389/fnhum.2016.00386. |
| 18 | Nijs J, Meeus M, Heins M, Knoop H, Moorkens G, Bleijenberg G. Kinesiophobia,catastrophizing and anticipated symptoms before stair climbing in chronic fatiguesyndrome: an experimental study. Disabil Rehabil. 2012;34(15):1299-305. doi:10.3109/09638288.2011.641661. |
| 19 | Pagé I, Abboud J, O Shaughnessy J, Laurencelle L, Descarreaux M. Chronic lowback pain clinical outcomes present higher associations with the STarT BackScreening Tool than with physiologic measures: a 12-month cohort study. BMCMusculoskelet Disord. 2015 Aug 19;16:201. doi: 10.1186/s12891-015-0669-0. |
| 20 | Pereira MJ, Jull GA, Treleaven JM. Self-reported driving habits in subjectswith persistent whiplash-associated disorder: relationship to sensorimotor andpsychologic features. Arch Phys Med Rehabil. 2008 Jun;89(6):1097-102. doi:10.1016/j.apmr.2007.10.044. |
| 21 | Ramprasad M, Shenoy DS, Sandhu JS, Sankara N. The influence of kinesiophobiaon trunk muscle voluntary responses with pre-programmed reactions duringperturbation in patients with chronic low back pain. J Bodyw Mov Ther. 2011Oct;15(4):485-95. doi: 10.1016/j.jbmt.2010.12.002. |
| 22 | Reneman MF, Jorritsma W, Dijkstra SJ, Dijkstra PU. Relationship betweenkinesiophobia and performance in a functional capacity evaluation. J OccupRehabil. 2003 Dec;13(4):277-85. |
| 23 | Reneman MF, Schiphorts Preuper HR, Kleen M, Geertzen JH, Dijkstra PU. Are painintensity and pain related fear related to functional capacity evaluationperformances of patients with chronic low back pain? J Occup Rehabil. 2007Jun;17(2):247-58. |
| 24 | Rovner GS, Sunnerhagen KS, Björkdahl A, Gerdle B, Börsbo B, Johansson F,Gillanders D. Chronic pain and sex-differences; women accept and move, while men feel blue. PLoS One. 2017 Apr 25;12(4):e0175737. doi:10.1371/journal.pone.0175737. |
| 25 | Sánchez-Herán Á, Agudo-Carmona D, Ferrer-Peña R, López-de-Uralde-Villanueva I,Gil-Martínez A, Paris-Alemany A, La Touche R. Postural Stability inOsteoarthritis of the Knee and Hip: Analysis of Association With PainCatastrophizing and Fear-Avoidance Beliefs. PM R. 2016 Jul;8(7):618-28. doi:10.1016/j.pmrj.2015.11.002. |
| 26 | Sarig Bahat H, Weiss PL, Sprecher E, Krasovsky A, Laufer Y. Do neck kinematicscorrelate with pain intensity, neck disability or with fear of motion? Man Ther. 2014 Jun;19(3):252-8. doi: 10.1016/j.math.2013.10.006. |
| 27 | Sell L, Lund HL, Holtermann A, Søgaard K. The interactions between pain,pain-related fear of movement and productivity. Occup Med (Lond). 2014Jul;64(5):376-81. doi: 10.1093/occmed/kqu056. |
| 28 | Silva AN, Martins MRI. Pain, Kinesiophobia and quality of life of low back pain patients. Rev Dor. Sao Paulo 2014;15(2):117-20. |
| 29 | Smeets RJ, van Geel AC, Kester AD, Knottnerus JA. Physical capacity tasks inchronic low back pain: what is the contributing role of cardiovascular capacity, pain and psychological factors? Disabil Rehabil. 2007 Apr 15;29(7):577-86. |
| 30 | Soer R, de Vries HJ, Brouwer S, Groothoff JW, Geertzen JH, Reneman MF. Doworkers with chronic nonspecific musculoskeletal pain, with and without sickleave, have lower functional capacity compared with healthy workers? Arch PhysMed Rehabil. 2012 Dec;93(12):2216-22. doi: 10.1016/j.apmr.2012.06.023. |
| 31 | Trocoli TO, Botelho RV. Prevalence of anxiety, depression and kinesiophobia inpatients with low back pain and their association with the symptoms of low backspinal pain. Rev Bras Reumatol Engl Ed. 2016 Jul-Aug;56(4):330-6. doi:10.1016/j.rbre.2016.02.010. |
| 32 | Uluğ N, Yakut Y, Alemdaroğlu İ, Yılmaz Ö. Comparison of pain, kinesiophobiaand quality of life in patients with low back and neck pain. J Phys Ther Sci.2016 Jan;28(2):665-70. doi: 10.1589/jpts.28.665. |
| 33 | Wenzel HH, Veld RH, Melman WP, Havinga ME, Pakvis D. Psychological riskfactors in back pain patients at an orthopaedic outpatient clinic. J BackMusculoskelet Rehabil. 2016 May 27. [Epub ahead of print] |
| 34 | Antunes RS, de Macedo BG, Amaral Tda S, Gomes Hde A, Pereira LS RF. Pain, kinesiophobia and quality of life in chronic low back pain and depression. Acta Ortop Bras 2013;21:27–9. |
| 35 | Dawson AP, Schluter PJ, Hodges PW, et al. Fear of movement, passive coping, manual handling, and severe or radiating pain increase the likelihood of sick leave due to low back pain. Pain 2011;152:1517–24. doi:10.1016/j.pain.2011.02.041 |
| 36 | Dailey DL, Frey Law LA, Vance CGT, et al. Perceived function and physical performance are associated with pain and fatigue in women with fibromyalgia. Arthritis Res Ther 2016;18:68. doi:10.1186/s13075-016-0954-9 |
| 37 | Geisser ME, Haig AJ, Theisen ME. Activity avoidance and function in persons with chronic back pain. J Occup Rehabil 2000;10:215–27. doi:10.1023/A:1026666403039 |
| 38 | Silver A, Haeney M, Vijayadurai P, et al. The role of fear of physical movement and activity in chronic fatigue syndrome. 2002;52:485–93. |
| 39 | van Koulil S, van Lankveld W, Kraaimaat FW, et al. Risk factors for longer term psychological distress in well-functioning fibromyalgia patients: A prospective study into prognostic factors. Patient Educ Couns 2010;80:126–9. doi:10.1016/j.pec.2009.08.001 |
| 40 | Sterling M, Chadwick BJ. Psychologic Processes in Daily Life With Chronic Whiplash: Relations of Posttraumatic Stress Symptoms and Fear-of-pain to Hourly Pain and Uptime. Clin J Pain 2010;26:573–82. doi:10.1097/AJP.0b013e3181e5c25e |

Studies testing kinesiophobia in the context of a behavioural task or treatment

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| --- | --- |
| 1 | Abbasi M, Dehghani M, Keefe FJ, Jafari H, Behtash H, Shams J. Spouse-assisted training in pain coping skills and the outcome of multidisciplinary pain management for chronic low back pain treatment: a 1-year randomized controlled trial. Eur J Pain. 2012 Aug;16(7):1033-43. doi: 10.1002/j.1532-2149.2011.00097.x. |
| 2 | Asenlöf P, Denison E, Lindberg P. Long-term follow-up of tailored behavioural treatment and exercise based physical therapy in persistent musculoskeletal pain: A randomized controlled trial in primary care. Eur J Pain. 2009 Nov;13(10):1080-8. doi: 10.1016/j.ejpain.2009.01.010. |
| 3 | Beltran-Alacreu H, López-de-Uralde-Villanueva I, Fernández-Carnero J, La Touche R. Manual Therapy, Therapeutic Patient Education, and Therapeutic Exercise, an Effective Multimodal Treatment of Nonspecific Chronic Neck Pain: A Randomized Controlled Trial. Am J Phys Med Rehabil. 2015 Oct;94(10 Suppl1):887-97. doi: 10.1097/PHM.0000000000000293. |
| 4 | Castrillon T, Hanney WJ, Rothschild CE, Kolber MJ, Liu X, Masaracchio M. The effects of a standardized belly dance program on perceived pain, disability, and function in women with chronic low back pain. J Back Musculoskelet Rehabil.2017;30(3):477-496. doi: 10.3233/BMR-150504. |
| 5 | Castro-Sánchez AM, Lara-Palomo IC, Matarán-Peñarrocha GA,Fernández-de-Las-Peñas C, Saavedra-Hernández M, Cleland J, Aguilar-Ferrándiz ME. Short-term effectiveness of spinal manipulative therapy versus functional technique in patients with chronic nonspecific low back pain: a pragmatic randomized controlled trial. Spine J. 2016 Mar;16(3):302-12. doi:10.1016/j.spinee.2015.08.057. |
| 6 | Castro-Sánchez AM, Lara-Palomo IC, Matarán-Peñarrocha GA, Saavedra-Hernández M, Pérez-Mármol JM, Aguilar-Ferrándiz ME. Benefits of Craniosacral Therapy in Patients with Chronic Low Back Pain: A Randomized Controlled Trial. J Altern Complement Med. 2016 Aug;22(8):650-7. doi: 10.1089/acm.2016.0068. |
| 7 | Chen KB, Sesto ME, Ponto K, Leonard J, Mason A, Vanderheiden G, Williams J, Radwin RG. Use of Virtual Reality Feedback for Patients with Chronic Neck Pain and Kinesiophobia. IEEE Trans Neural Syst Rehabil Eng. 2016 Oct 26. doi:10.1109/TNSRE.2016.2621886. |
| 8 | Coombes BK, Wiebusch M, Heales L, Stephenson A, Vicenzino B. Isometric Exercise Above but not Below an Individual's Pain Threshold Influences Pain Perception in People With Lateral Epicondylalgia. Clin J Pain. 2016 Dec;32(12):1069-1075. |
| 9 | Emilson C, Demmelmaier I, Bergman S, Lindberg P, Denison E, Åsenlöf P. A 10-year follow-up of tailored behavioural treatment and exercise-based physiotherapy for persistent musculoskeletal pain. Clin Rehabil. 2017 Feb;31(2):186-196. doi: 10.1177/0269215516639356. |
| 10 | George SZ, Wittmer VT, Fillingim RB, Robinson ME. Comparison of graded exercise and graded exposure clinical outcomes for patients with chronic low back pain. J Orthop Sports Phys Ther. 2010 Nov;40(11):694-704. doi:10.2519/jospt.2010.3396. |
| 11 | Guck TP, Burke RV, Rainville C, Hill-Taylor D, Wallace DP. A brief primary care intervention to reduce fear of movement in chronic low back pain patients.Transl Behav Med. 2015 Mar;5(1):113-21. doi: 10.1007/s13142-014-0292-x. |
| 12 | Henry SM, Van Dillen LR, Ouellette-Morton RH, Hitt JR, Lomond KV, DeSarno MJ, Bunn JY. Outcomes are not different for patient-matched versus nonmatched treatment in subjects with chronic recurrent low back pain: a randomized clinical trial. Spine J. 2014 Dec 1;14(12):2799-810. doi:10.1016/j.spinee.2014.03.024. |
| 13 | Hurley DA, Tully MA, Lonsdale C, Boreham CA, van Mechelen W, Daly L, Tynan A, McDonough SM. Supervised walking in comparison with fitness training for chronic back pain in physiotherapy: results of the SWIFT single-blinded randomizedcontrolled trial (ISRCTN17592092). Pain. 2015 Jan;156(1):131-47. doi:10.1016/j.pain.0000000000000013. |
| 14 | Jay K, Brandt M, Jakobsen MD, Sundstrup E, Berthelsen KG, Schraefel M, Sjøgaard G, Andersen LL. Ten weeks of physical-cognitive-mindfulness training reduces fear-avoidance beliefs about work-related activity: Randomized controlled trial. Medicine (Baltimore). 2016 Aug;95(34):e3945. doi:10.1097/MD.0000000000003945. |
| 15 | de Jong JR, Vlaeyen JW, Onghena P, Goossens ME, Geilen M, Mulder H. Fear of movement/(re)injury in chronic low back pain: education or exposure in vivo as mediator to fear reduction? Clin J Pain. 2005 Jan-Feb;21(1):9-17; discussion69-72. |
| 16 | Kernan T, Rainville J. Observed outcomes associated with a quota-based exercise approach on measures of kinesiophobia in patients with chronic low back pain. J Orthop Sports Phys Ther. 2007 Nov;37(11):679-87. |
| 17 | Klaber Moffett JA, Jackson DA, Richmond S, Hahn S, Coulton S, Farrin A, Manca A, Torgerson DJ. Randomised trial of a brief physiotherapy intervention compared with usual physiotherapy for neck pain patients: outcomes and patients'preference. BMJ. 2005 Jan 8;330(7482):75. Epub 2004 Dec 7. |
| 18 | Lara-Palomo IC, Aguilar-Ferrándiz ME, Matarán-Peñarrocha GA,Saavedra-Hernández M, Granero-Molina J, Fernández-Sola C, Castro-Sánchez AM. Short-term effects of interferential current electro-massage in adults with chronic non-specific low back pain: a randomized controlled trial. Clin Rehabil. 2013 May;27(5):439-49. doi: 10.1177/0269215512460780. |
| 19 | Lopez-Lopez A, Alonso Perez JL, González Gutierez JL, La Touche R, Lerma Lara S, Izquierdo H, Fernández-Carnero J. Mobilization versus manipulations versus sustain apophyseal natural glide techniques and interaction with psychologicalfactors for patients with chronic neck pain: randomized controlled trial. Eur J Phys Rehabil Med. 2015 Apr;51(2):121-32. |
| 20 | da Luz MA Jr, Costa LO, Fuhro FF, Manzoni AC, Oliveira NT, Cabral CM.Effectiveness of mat Pilates or equipment-based Pilates exercises in patients with chronic nonspecific low back pain: a randomized controlled trial. Phys Ther.2014 May;94(5):623-31. doi: 10.2522/ptj.20130277. |
| 21 | Marshall P, Murphy B. Self-report measures best explain changes in disability compared with physical measures after exercise rehabilitation for chronic low back pain. Spine (Phila Pa 1976). 2008 Feb 1;33(3):326-38. doi:10.1097/BRS.0b013e31816233eb. |
| 22 | Massé-Alarie H, Flamand VH, Moffet H, Schneider C. Peripheral neurostimulation and specific motor training of deep abdominal muscles improve posturomotor control in chronic low back pain. Clin J Pain. 2013 Sep;29(9):814-23. doi:10.1097/AJP.0b013e318276a058. |
| 23 | Monticone M, Ferrante S, Rocca B, Baiardi P, Farra FD, Foti C. Effect of a long-lasting multidisciplinary program on disability and fear-avoidance behaviors in patients with chronic low back pain: results of a randomized controlled trial. Clin J Pain. 2013 Nov;29(11):929-38. doi:10.1097/AJP.0b013e31827fef7e. |
| 24 | Monticone M, Ambrosini E, Rocca B, Cazzaniga D, Liquori V, Pedrocchi A, Vernon H. Group-based multimodal exercises integrated with cognitive-behavioural therapy improve disability, pain and quality of life of subjects with chronic neck pain: a randomized controlled trial with one-year follow-up. Clin Rehabil. 2017 Jun;31(6):742-752. doi: 10.1177/0269215516651979. |
| 25 | Monticone M, Ambrosini E, Rocca B, Cazzaniga D, Liquori V, Foti C. Group-based task-oriented exercises aimed at managing kinesiophobia improved disability in chronic low back pain. Eur J Pain. 2016 Apr;20(4):541-51. doi: 10.1002/ejp.756. |
| 26 | Nassif H, Brosset N, Guillaume M, Delore-Milles E, Tafflet M, Buchholz F,Toussaint JF. Evaluation of a randomized controlled trial in the management of chronic lower back pain in a French automotive industry: an observational study. Arch Phys Med Rehabil. 2011 Dec;92(12):1927-1936.e4. doi:10.1016/j.apmr.2011.06.029. |
| 27 | Ogston JB, Crowell RD, Konowalchuk BK. Graded group exercise and fear avoidance behavior modification in the treatment of chronic low back pain. J Back Musculoskelet Rehabil. 2016 Nov 21;29(4):673-684. |
| 28 | Overmeer T, Peterson G, Landén Ludvigsson M, Peolsson A. The effect of neck-specific exercise with or without a behavioral approach on psychological factors in chronic whiplash associated disorders: A randomized controlled trial with a 2-year follow-up. Medicine (Baltimore). 2016 Aug;95(34):e4430. doi:10.1097/MD.0000000000004430. |
| 29 | Pagé I, Marchand AA, Nougarou F, O'Shaughnessy J, Descarreaux M. Neuromechanical responses after biofeedback training in participants with chronic low back pain: an experimental cohort study. J Manipulative Physiol Ther. 2015 Sep;38(7):449-57. doi: 10.1016/j.jmpt.2015.08.005. |
| 30 | Peterson GE, Landén Ludvigsson MH, O'Leary SP, Dedering ÅM, Wallman T, Jönsson MI, Peolsson AL. The effect of 3 different exercise approaches on neck muscle endurance, kinesiophobia, exercise compliance, and patient satisfaction in chronic whiplash. J Manipulative Physiol Ther. 2015 Sep;38(7):465-476.e4. doi:10.1016/j.jmpt.2015.06.011. |
| 31 | Pillastrini P, de Lima E Sá Resende F, Banchelli F, Burioli A, Di Ciaccio E, Guccione AA, Villafañe JH, Vanti C. Effectiveness of Global Postural Re-educatio in Patients With Chronic Nonspecific Neck Pain: Randomized Controlled Trial. Phys Ther. 2016 Sep;96(9):1408-16. doi: 10.2522/ptj.20150501. |
| 32 | Pires D, Cruz EB, Caeiro C. Aquatic exercise and pain neurophysiologyeducation versus aquatic exercise alone for patients with chronic low back pain: a randomized controlled trial. Clin Rehabil. 2015 Jun;29(6):538-47. doi:10.1177/0269215514549033. |
| 33 | Ris I, Søgaard K, Gram B, Agerbo K, Boyle E, Juul-Kristensen B. Does a combination of physical training, specific exercises and pain education improve health-related quality of life in patients with chronic neck pain? A randomisedcontrol trial with a 4-month follow up. Man Ther. 2016 Dec;26:132-140. doi:10.1016/j.math.2016.08.004. |
| 34 | Rolving N, Christiansen DH, Andersen LL, Skotte J, Ylinen J, Jensen OK, Nielsen CV, Jensen C. Effect of strength training in addition to general exercise in the rehabilitation of patients with non-specific neck pain. A randomized controlled trial. Eur J Phys Rehabil Med 2014; 50:617-26. |
| 35 | Sarig Bahat H, Takasaki H, Chen X, Bet-Or Y, Treleaven J. Cervical kinematic training with and without interactive VR training for chronic neck pain – a randomized clinical trial. Man Ther. 2015 Feb;20(1):68-78. doi:10.1016/j.math.2014.06.008. |
| 36 | Sullivan MJL, Adams H, Ellis T. Targeting catastrophic thinking to promote return to work in individuals with fibromyalgia. Journal of cognitive psychotherapy: an international quarterly 2012;26(2): 130-142. |
| 37 | O'Sullivan K, Dankaerts W, O'Sullivan L, O'Sullivan PB. Cognitive Functional Therapy for Disabling Nonspecific Chronic Low Back Pain: Multiple Case-CohortStudy. Phys Ther. 2015 Nov;95(11):1478-88. doi:10.2522/ptj.20140406. |
| 38 | Téllez-García M, de-la-Llave-Rincón AI, Salom-Moreno J, Palacios-Ceña M,Ortega-Santiago R, Fernández-de-Las-Peñas C. Neuroscience education in addition to trigger point dry needling for the management of patients with mechanicalchronic low back pain: A preliminary clinical trial. J Bodyw Mov Ther. 2015 Jul;19(3):464-72. doi:10.1016/j.jbmt.2014.11.012. |
| 39 | Thompson DP, Oldham JA, Woby SR. Does adding cognitive-behavioural physiotherapy to exercise improve outcome in patients with chronic neck pain? A randomised controlled trial. Physiotherapy. 2016 Jun;102(2):170-7. doi:10.1016/j.physio.2015.04.008. |
| 40 | Vincent HK, George SZ, Seay AN, Vincent KR, Hurley RW. Resistance exercise, disability, and pain catastrophizing in obese adults with back pain. Med Sci Sports Exerc. 2014 Sep;46(9):1693-701. doi: 10.1249/MSS.0000000000000294. |
| 41 | Vlaeyen JW, de Jong J, Geilen M, Heuts PH, van Breukelen G. The treatment of fear of movement/(re)injury in chronic low back pain: further evidence on the effectiveness of exposure in vivo. Clin J Pain. 2002 Jul-Aug;18(4):251-61. |
| 42 | Yilmaz Yelvar GD, Çırak Y, Dalkılınç M, Parlak Demir Y, Guner Z, Boydak A. Is physiotherapy integrated virtual walking effective on pain, function, and kinesiophobia in patients with non-specific low-back pain? Randomised controlled trial. Eur Spine J. 2017 Feb;26(2):538-545. doi:10.1007/s00586-016-4892-7. |

|  |  |
| --- | --- |
| 43 | Barke A, Baudewig J, Schmidt-Samoa C, Dechent P, Kröner-Herwig B. Neural correlates of fear of movement in high and low fear-avoidant chronic low back pain patients: an event-related fMRI study. Pain. 2012 Mar;153(3):540-52. doi:10.1016/j.pain.2011.11.012. |
| 44 | Barke A, Preis MA, Schmidt-Samoa C, Baudewig J, Kröner-Herwig B, Dechent P. Neural Correlates Differ in High and Low Fear-Avoidant Chronic Low Back Pain Patients When Imagining Back-Straining Movements. J Pain. 2016 Aug;17(8):930-43. doi: 10.1016/j.jpain.2016.05.005. |
| 45 | Crombez G, Vervaet L, Lysens R, Baeyens F, Eelen P. Avoidance and confrontation of painful, back-straining movements in chronic back pain patients. Behav Modif. 1998 Jan;22(1):62-77.  |
| 46 | Glombiewski JA, Riecke J, Holzapfel S, Rief W, König S, Lachnit H, Seifart U. Do patients with chronic pain show autonomic arousal when confronted with feared movements? An experimental investigation of the fear-avoidance model. Pain. 2015 Mar;156(3):547-54. doi:10.1097/01.j.pain.0000460329.48633.ce.  |
| 47 | Goubert L, Crombez G, Lysens R. Effects of varied-stimulus exposure on overpredictions of pain and behavioural performance in low back pain patients. Behav Res Ther. 2005 Oct;43(10):1347-61. |
| 48 | Kronshage U, Kroener-Herwig B, Pfingsten M. Kinesiophobia in chronic low back pain patients-Does the startle paradigm support the hypothesis?. International Journal of Behavioral Medicine 2001; 8(4):304-318. |
| 49 | Larivière C, Butler H, Sullivan MJ, Fung J. An exploratory study on the effect of pain interference and attentional interference on neuromuscular responses during rapid arm flexion movements. Clin J Pain. 2013 Mar;29(3):265-75. doi:10.1097/AJP.0b013e318250ed6f. |
| 50 | Leeuw M, Peters ML, Wiers RW, Vlaeyen JW. Measuring fear ofmovement/(re)injury in chronic low back pain using implicit measures. Cogn Behav Ther. 2007;36(1):52-64. |
| 51 | Martel MO, Thibault P, Sullivan MJ. The persistence of pain behaviors in patients with chronic back pain is independent of pain and psychological factors. Pain. 2010 Nov;151(2):330-6. doi: 10.1016/j.pain.2010.07.004. |
| 52 | Meulders A, Jans A, Vlaeyen JW. Differences in pain-related fear acquisition and generalization: an experimental study comparing patients with fibromyalgia and healthy controls. Pain. 2015 Jan;156(1):108-22. doi:10.1016/j.pain.0000000000000016. |
| 53 | Meulders A, Meulders M, Stouten I, De Bie J, Vlaeyen JW. Extinction of Fear Generalization: A Comparison Between Fibromyalgia Patients and Healthy Control Participants. J Pain. 2017 Jan;18(1):79-95. doi: 10.1016/j.jpain.2016.10.004. |
| 54 | Pérez-Fernández M, Lerma-Lara S, Ferrer-Peña R, Gil-Martínez A,López-de-Uralde-Villanueva I, Paris-Alemany A, Beltrán-Alacreu H, La Touche R.Fear and difficulty perceived when visualizing therapeutic exercise in patients with chronic low back pain: A cross-sectional study. J Exerc Rehabil. 2015 Dec31;11(6):345-55. doi: 10.12965/jer.150232. |
| 55 | Roelofs J, Peters ML, Vlaeyen JW. The modified Stroop paradigm as a measure of selective attention towards pain-related information in patients with chronic low back pain. Psychol Rep. 2003 Jun;92(3 Pt 1):707-15. |
| 56 | Roelofs J, Peters ML, Fassaert T, Vlaeyen JW. The role of fear of movement and injury in selective attentional processing in patients with chronic low back pain: a dot-probe evaluation. J Pain. 2005 May;6(5):294-300. |
| 57 | Trost Z, France CR, Thomas JS. Exposure to movement in chronic back pain:evidence of successful generalization across a reaching task. Pain. 2008Jul;137(1):26-33. |
| 58 | Trost Z, France CR, Thomas JS. Examination of the photograph series of daily activities (PHODA) scale in chronic low back pain patients with high and low kinesiophobia. Pain. 2009 Feb;141(3):276-82. doi: 10.1016/j.pain.2008.11.016. |
| 59 | Vangronsveld K, Van Damme S, Peters M, Vlaeyen J, Goossens M, Crombez G. An experimental investigation on attentional interference by threatening fixations of the neck in patients with chronic whiplash syndrome. Pain. 2007 Jan;127(1-2):121-8. |
| 60 | Vlaeyen JW, Seelen HA, Peters M, de Jong P, Aretz E, Beisiegel E, Weber WE. Fear of movement/(re)injury and muscular reactivity in chronic low back pain patients: an experimental investigation. Pain. 1999 Sep;82(3):297-304. |

Kinesiophobia explored in chronic musculoskeletal pain after fracture

|  |  |
| --- | --- |
| 1 | Bean DJ, Johnson MH, Kydd RR. Relationships between psychological factors,pain, and disability in complex regional pain syndrome and low back pain. Clin J Pain. 2014 Aug;30(8):647-53. doi: 10.1097/AJP.0000000000000007. |
| 2 | Das De S, Vranceanu AM, Ring DC. Contribution of kinesophobia and catastrophic thinking to upper-extremity-specific disability. J Bone Joint Surg Am. 2013 Jan 2;95(1):76-81. doi: 10.2106/JBJS.L.00064. |
| 3 | Lentz TA, Sutton Z, Greenberg S, Bishop MD. Pain-related fear contributes to self-reported disability in patients with foot and ankle pathology. Arch Phys Med Rehabil. 2010 Apr;91(4):557-61. doi: 10.1016/j.apmr.2009.12.010. |
| 4 | Wolfensberger A, Vuistiner P, Konzelmann M, Plomb-Holmes C, Léger B, Luthi F. Clinician and Patient-reported Outcomes Are Associated With Psychological Factors in Patients With Chronic Shoulder Pain. Clin Orthop Relat Res. 2016Sep;474(9):2030-9. doi: 10.1007/s11999-016-4894-0. |

Kinesiophobia measured before surgery and or post-surgery

|  |  |
| --- | --- |
| 1 | Abbott AD, Tyni-Lenné R, Hedlund R. The influence of psychological factors on pre-operative levels of pain intensity, disability and health-related quality of life in lumbar spinal fusion surgery patients. Physiotherapy. 2010Sep;96(3):213-21. doi: 10.1016/j.physio.2009.11.013. |
| 2 | Alodaibi FA, Minick KI, Fritz JM. Do preoperative fear avoidance model factors predict outcomes after lumbar disc herniation surgery? A systematic review.Chiropr Man Therap. 2013 Nov 18;21(1):40. doi: 10.1186/2045-709X-21-40. |
| 3 | Archer KR, Wegener ST, Seebach C, Song Y, Skolasky RL, Thornton C, Khanna AJ, Riley LH 3rd. The effect of fear of movement beliefs on pain and disability after surgery for lumbar and cervical degenerative conditions. Spine (Phila Pa 1976).2011 Sep 1;36(19):1554-62. doi:10.1097/BRS.0b013e3181f8c6f4. |
| 4 | Archer KR, Abraham CM, Song Y, Obremskey WT. Cognitive-behavioral determinants of pain and disability two years after traumatic injury: A cross-sectional survey study. J Trauma Acute Care Surg. 2012 Feb;72(2):473-9. doi:10.1097/TA.0b013e3182245ece. |
| 5 | Archer KR, Seebach CL, Mathis SL, Riley LH 3rd, Wegener ST. Early postoperative fear of movement predicts pain, disability, and physical health six months after spinal surgery for degenerative conditions. Spine J. 2014 May1;14(5):759-67. doi: 10.1016/j.spinee.2013.06.087. |
| 6 | Brown ML, Plate JF, Von Thaer S, Fino NF, Smith BP, Seyler TM, Lang JE.Decreased Range of Motion After Total Knee Arthroplasty Is Predicted by the Tampa Scale of Kinesiophobia. J Arthroplasty. 2016 Apr;31(4):793-7. doi:10.1016/j.arth.2015.10.037. |
| 7 | Chmielewski TL, Jones D, Day T, Tillman SM, Lentz TA, George SZ. The association of pain and fear of movement/reinjury with function during anterior cruciate ligament reconstruction rehabilitation. J Orthop Sports Phys Ther. 2008 Dec;38(12):746-53. doi: 10.2519/jospt.2008.2887. |
| 8 | Chmielewski TL, Zeppieri G Jr, Lentz TA, Tillman SM, Moser MW, Indelicato PA, George SZ. Longitudinal changes in psychosocial factors and their association with knee pain and function after anterior cruciate ligament reconstruction. Phys Ther. 2011 Sep;91(9):1355-66. doi: 10.2522/ptj.20100277. |
| 9 | Costa Lda C, Maher CG, McAuley JH, Hancock MJ, Smeets RJ. Self-efficacy is more important than fear of movement in mediating the relationship between pain and disability in chronic low back pain. Eur J Pain. 2011 Feb;15(2):213-9. doi:10.1016/j.ejpain.2010.06.014.  |
| 10 | Cozzi AL, Dunn KL, Harding JL, Valovich McLeod TC, Welch Bacon CE. Kinesiophobia After Anterior Cruciate Ligament Reconstruction in Physically Active Individuals. J Sport Rehabil. 2015 Nov;24(4):434-9. doi:10.1123/jsr.2014-0196. |
| 11 | Crombez G, Vlaeyen JW, Heuts PH, Lysens R. Pain-related fear is more disabling than pain itself: evidence on the role of pain-related fear in chronic back pain disability. Pain. 1999 Mar;80(1-2):329-39.  |
| 12 | Culvenor AG, Collins NJ, Vicenzino B, Cook JL, Whitehead TS, Morris HG, Crossley KM. Predictors and effects of patellofemoral pain following hamstring-tendon ACL reconstruction. J Sci Med Sport. 2016 Jul;19(7):518-23. doi:10.1016/j.jsams.2015.07.008. |
| 13 | Czuppon S, Racette BA, Klein SE, Harris-Hayes M. Variables associated with return to sport following anterior cruciate ligament reconstruction: a systematic review. Br J Sports Med. 2014 Mar;48(5):356-64. doi:10.1136/bjsports-2012-091786.  |
| 14 | Doménech J, Sanchis-Alfonso V, Espejo B. Changes in catastrophizing and kinesiophobia are predictive of changes in disability and pain after treatment in patients with anterior knee pain. Knee Surg Sports Traumatol Arthrosc. 2014Oct;22(10):2295-300. doi: 10.1007/s00167-014-2968-7. |
| 15 | Doury-Panchout F, Metivier JC, Fouquet B. Kinesiophobia negatively influences recovery of joint function following total knee arthroplasty. Eur J Phys Rehabil Med. 2015 Apr;51(2):155-61. |
| 16 | Everhart JS, Best TM, Flanigan DC. Psychological predictors of anterior cruciate ligament reconstruction outcomes: a systematic review. Knee Surg Sports Traumatol Arthrosc. 2015 Mar;23(3):752-62. doi: 10.1007/s00167-013-2699-1. |
| 17 | Filardo G, Roffi A, Merli G, Marcacci T, Ceroni FB, Raboni D, Bortolotti B, De Pasqual L, Marcacci M. Patient kinesiophobia affects both recovery time and final outcome after total knee arthroplasty. Knee Surg Sports Traumatol Arthrosc. 2016 Oct;24(10):3322-3328. |
| 18 | Filardo G, Merli G, Roffi A, Marcacci T, Berti Ceroni F, Raboni D, Bortolotti B, Kon E, Marcacci M. Kinesiophobia and depression affect total knee arthroplasty outcome in a multivariate analysis of psychological and physical factors on 200 patients. Knee Surg Sports Traumatol Arthrosc. 2016 Jun 21. [Epub ahead of print] |
| 19 | Flanigan DC, Everhart JS, Pedroza A, Smith T, Kaeding CC. Fear of reinjury(kinesiophobia) and persistent knee symptoms are common factors for lack of return to sport after anterior cruciate ligament reconstruction. Arthroscopy.2013 Aug;29(8):1322-9. doi: 10.1016/j.arthro.2013.05.015. |
| 20 | Flanigan DC, Everhart JS, Glassman AH. Psychological Factors Affecting Rehabilitation and Outcomes Following Elective Orthopaedic Surgery. J Am Acad Orthop Surg. 2015 Sep;23(9):563-70. doi: 10.5435/JAAOS-D-14-00225. |
| 21 | Fletcher C, Bradnam L, Barr C. The relationship between knowledge of pain neurophysiology and fear avoidance in people with chronic pain: A point in time, observational study. Physiother Theory Pract. 2016 May;32(4):271-6. doi:10.3109/09593985.2015.1138010. |
| 22 | Geisser ME, Haig AJ, Wallbom AS, Wiggert EA. Pain-related fear, lumbar flexion, and dynamic EMG among persons with chronic musculoskeletal low back pain. Clin J Pain. 2004 Mar-Apr;20(2):61-9. |
| 23 | George SZ, Wallace MR, Wright TW, Moser MW, Greenfield WH 3rd, Sack BK, Herbstman DM, Fillingim RB. Evidence for a biopsychosocial influence on shoulder pain: pain catastrophizing and catechol-O-methyltransferase (COMT) diplotype predict clinical pain ratings. Pain. 2008 May;136(1-2):53-61. |
| 24 | George SZ, Wu SS, Wallace MR, Moser MW, Wright TW, Farmer KW, Greenfield WH 3rd, Dai Y, Li H, Fillingim RB. Biopsychosocial Influence on Shoulder Pain:Influence of Genetic and Psychological Combinations on Twelve-Month PostoperativePain and Disability Outcomes. Arthritis Care Res (Hoboken). 2016 Nov;68(11):1671-1680. doi: 10.1002/acr.22876. |
| 25 | Güney-Deniz H, Irem Kınıklı G, Çağlar Ö, Atilla B, Yüksel İ. Does kinesiophobia affect the early functional outcomes following total knee arthroplasty? Physiother Theory Pract. 2017 Jun;33(6):448-453. doi:10.1080/09593985.2017.1318988. |
| 26 | Hart HF, Collins NJ, Ackland DC, Crossley KM. Is impaired knee confidence related to worse kinesiophobia, symptoms, and physical function in people with knee osteoarthritis after anterior cruciate ligament reconstruction? J Sci MedSport. 2015 Sep;18(5):512-7. doi:10.1016/j.jsams.2014.09.011. |
| 27 | Hartigan EH, Lynch AD, Logerstedt DS, Chmielewski TL, Snyder-Mackler L. Kinesiophobia after anterior cruciate ligament rupture and reconstruction:noncopers versus potential copers. J Orthop Sports Phys Ther. 2013 Nov;43(11):821-32. doi: 10.2519/jospt.2013.4514. |
| 28 | Johansson AC, Öhrvik J, Söderlund A. Associations among pain, disability and psychosocial factors and the predictive value of expectations on returning to work in patients who undergo lumbar disc surgery. Eur Spine J. 2016 Jan;25(1):296-303. doi: 10.1007/s00586-015-3820-6. |
| 29 | Kocic M, Stankovic A, Lazovic M, Dimitrijevic L, Stankovic I, Spalevic M,Stojiljkovic P, Milenkovic M, Stojanovic Z, Nikolic D. Influence of fear of movement on total knee arthroplasty outcome. Ann Ital Chir. 2015 Mar-Apr;86(2):148-55. |
| 30 | Kvist J, Ek A, Sporrstedt K, Good L. Fear of re-injury: a hindrance for returning to sports after anterior cruciate ligament reconstruction. Knee Surg Sports Traumatol Arthrosc. 2005 Jul;13(5):393-7. |
| 31 | Lentz TA, Tillman SM, Indelicato PA, Moser MW, George SZ, Chmielewski TL.Factors associated with function after anterior cruciate ligament reconstruction. Sports Health. 2009 Jan;1(1):47-53. |
| 32 | Lentz TA, Zeppieri G Jr, Tillman SM, Indelicato PA, Moser MW, George SZ,Chmielewski TL. Return to preinjury sports participation following anterior cruciate ligament reconstruction: contributions of demographic, knee impairment, and self-report measures. J Orthop Sports Phys Ther. 2012 Nov;42(11):893-901.doi: 10.2519/jospt.2012.4077. |
| 33 | Levinger P, Menz HB, Wee E, Feller JA, Bartlett JR, Bergman NR. Physiological risk factors for falls in people with knee osteoarthritis before and early after knee replacement surgery. Knee Surg Sports Traumatol Arthrosc. 2011 Jul;19(7):1082-9. doi: 10.1007/s00167-010-1325-8. |
| 34 | Medvecky MJ, Nelson S. Kinesiophobia and Return to Sports After Anterior Cruciate Ligament Reconstruction. Conn Med. 2015 Mar;79(3):155-7. |
| 35 | Misterska E, Jankowski R, Głowacki J, Shadi M, Walczak M, Głowacki M.Kinesiophobia in pre-operative patients with cervical discopathy and coexisting degenerative changes in relation to pain-related variables, psychological stateand sports activity. Med Sci Monit. 2015 Jan 14;21:181-94. doi:10.12659/MSM.891045. |
| 36 | Müller U, Krüger-Franke M, Schmidt M, Rosemeyer B. Predictive parameters for return to pre-injury level of sport 6 months following anterior cruciate ligament reconstruction surgery. Knee Surg Sports Traumatol Arthrosc. 2015 Dec;23(12):3623-31. doi: 10.1007/s00167-014-3261-5. |
| 37 | Powell R, Johnston M, Smith WC, King PM, Chambers WA, McKee L, Bruce J.Rehabilitation following surgery: clinical and psychological predictors of activity limitations. Rehabil Psychol. 2013 Nov;58(4):350-60. doi:10.1037/a0034660.  |
| 38 | Riddle DL, Wade JB, Jiranek WA, Kong X. Preoperative pain catastrophizing predicts pain outcome after knee arthroplasty. Clin Orthop Relat Res. 2010 Mar;468(3):798-806. doi: 10.1007/s11999-009-0963-y. |
| 39 | Ross CA, Clifford A, Louw QA. Factors informing fear of reinjury after anterior cruciate ligament reconstruction. Physiother Theory Pract. 2017 Feb;33(2):103-114. doi: 10.1080/09593985.2016.1271847. |
| 40 | Sullivan M, Tanzer M, Stanish W, Fallaha M, Keefe FJ, Simmonds M, Dunbar M. Psychological determinants of problematic outcomes following Total Knee Arthroplasty. Pain. 2009 May;143(1-2):123-9. doi: 10.1016/j.pain.2009.02.011. |
| 41 | Svensson GL, Lundberg M, Ostgaard HC, Wendt GK. High degree of kinesiophobia after lumbar disc herniation surgery: a cross-sectional study of 84 patients. Acta Orthop. 2011 Dec;82(6):732-6. doi: 10.3109/17453674.2011.636674. |
| 42 | Tengman E, Brax Olofsson L, Nilsson KG, Tegner Y, Lundgren L, Häger CK. Anterior cruciate ligament injury after more than 20 years: I. Physical activity level and knee function. Scand J Med Sci Sports. 2014 Dec;24(6):e491-500. doi:10.1111/sms.12212. |
| 43 | Unver B, Ertekin Ö, Karatosun V. Pain, fear of falling and stair climbing ability in patients with knee osteoarthritis before and after knee replacement: 6 month follow-up study. J Back Musculoskelet Rehabil. 2014;27(1):77-84. doi:10.3233/BMR-130422. |
| 44 | Vincent HK, Lamb KM, Day TI, Tillman SM, Vincent KR, George SZ. Morbid obesity is associated with fear of movement and lower quality of life in patients with knee pain-related diagnoses. PM R. 2010 Aug;2(8):713-22. doi:10.1016/j.pmrj.2010.04.027. |
| 45 | Yakobov E, Scott W, Stanish W, Dunbar M, Richardson G, Sullivan M. The role of perceived injustice in the prediction of pain and function after total knee arthroplasty. Pain. 2014 Oct;155(10):2040-6. doi: 10.1016/j.pain.2014.07.007. |

Kinesiophobia did not measure with TSK

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| --- | --- |
| 1 | Camacho-Soto A, Sowa GA, Perera S, Weiner DK. Fear avoidance beliefs predict disability in older adults with chronic low back pain. PM R. 2012 Jul;4(7):493-7.doi: 10.1016/j.pmrj.2012.01.017. |
| 2 | Chan HL, Chiu TTW. The correlations among pain, disability, lumbar muscle endurance and fear-avoidance behaviour in patients with chronic low back pain. Journal of Back and Musculoskeletal Rehabilitation 2008; 21:35-42. |
| 3 | Grotle M, Vøllestad NK, Brox JI. Clinical course and impact of fear-avoidance beliefs in low back pain: prospective cohort study of acute and chronic low back pain: II. Spine (Phila Pa 1976). 2006 Apr 20;31(9):1038-46. |
| 4 | Gunn AH, Schwartz TA, Arbeeva LS, Callahan LF, Golightly Y, Goode A, Hill CH, Huffman K, Iversen MD, Pathak A, Taylor SS, Allen KD. Fear of Movement and Associated Factors among Adults with Symptomatic Knee Osteoarthritis. ArthritisCare Res (Hoboken). 2017 Mar 31. doi: 10.1002/acr.23226. |
| 5 | Lindstroem R, Graven-Nielsen T, Falla D. Current pain and fear of pain contribute to reduced maximum voluntary contraction of neck muscles in patients with chronic neck pain. Arch Phys Med Rehabil. 2012 Nov;93(11):2042-8. doi:10.1016/j.apmr.2012.04.014. |
| 6 | Al-Obaidi SM, Al-Zoabi B, Al-Shuwaie N, Al-Zaabie N, Nelson RM. The influence of pain and pain-related fear and disability beliefs on walking velocity in chronic low back pain. Int J Rehabil Res. 2003 Jun;26(2):101-8. |
| 7 | Pinto RZ, Ferreira PH, Kongsted A, Ferreira ML, Maher CG, Kent P. Self-reported moderate-to-vigorous leisure time physical activity predicts less pain and disability over 12 months in chronic and persistent low back pain. Eur J Pain. 2014 Sep;18(8):1190-8. doi: 10.1002/j.1532-2149.2014.00468.x. |
| 8 | Sorbi MJ, Peters ML, Kruise DA, Maas CJ, Kerssens JJ, Verhaak PF, Bensing JM. Electronic momentary assessment in chronic pain II: pain and psychological pain responses as predictors of pain disability. Clin J Pain. 2006 Jan;22(1):67-81. |
| 9 | Takasaki H, Johnston V, Treleaven J, Pereira M, Jull G. Driving with a chronic whiplash-associated disorder: a review of patients' perspectives. Arch Phys Med Rehabil. 2011 Jan;92(1):106-10. doi: 10.1016/j.apmr.2010.10.008. |
| 10 | Watson PJ, Booker CK, Main CJ. Evidence for the role of psychological factors in abnormal paraspinal activity in patients with chronic low back pain. Journal of Musculoskeletal Pain 1997; 5(4): 41-56. |
| 11 | Woby SR, Watson PJ, Roach NK, Urmston M. Adjustment to chronic low back pain--the relative influence of fear-avoidance beliefs, catastrophizing, and appraisals of control. Behav Res Ther. 2004 Jul;42(7):761-74. |
| 12 | Woby SR, Watson PJ, Roach NK, Urmston M. Are changes in fear-avoidance beliefs, catastrophizing, and appraisals of control, predictive of changes in chronic low back pain and disability? Eur J Pain. 2004 Jun;8(3):201-10. |
| 13 | Woby SR, Urmston M, Watson PJ. Self-efficacy mediates the relation between pain-related fear and outcome in chronic low back pain patients. Eur J Pain. 2007 Oct;11(7):711-8. |
| 14 | Yoshimoto T, Oka H, Katsuhira J, Fujii T, Masuda K, Tanaka S, Matsudaira K. Prognostic psychosocial factors for disabling low back pain in Japanese hospital workers. PLoS One. 2017 May 22;12(5):e0177908. doi: 10.1371/journal.pone.0177908. |