Source	Country	No.of Subjects	Mean Age Sex (M/F)	Exercise Duration	Body Mind Breath	Exercise Style	Control group
Audette Jin Newcomer Stein Duncan & Frontera, 2006 Department of Physical Medicine & Rehabilitation, Harvard Medical School	USA	26 Community dwelling sedentary Women	71.4±4.5 0/19	12 weeks (1 hour/3xweek)	Body ? Mind and breathing	TCC 10 movement Yang	Brisk Walking and control group Usual activities
Barrow Bedford Ives O'Toole & Channer, 2007, British Heart Foundation	UK	52 older adults with chronic heart failure	69.5 (49-60) 42/10	16 weeks (55 minutes x 2 days)	Body and mind	TCC with Chi Kung	Usual care

Source	Country	No.of Subjects	Mean Age Sex (M/F)	Exercise Duration	Body Mind Breath	Exercise Style	Control group
Brismee Paige Chyu Boatright Hagar McCaleb Quintela Feng Zu Shen, 2007, Lubbock Endowed Professorship Earnings and Texas Tech University Health Sciences Center School of allied Health Sciences students' funding	USA	41 community dwelling older adults with knee osteoarthritis	70±9.2 7/34	12 week TC and 6 week no training (40 minx3days/6 weeks group training: 6 weeks home training: 6 weeks detraining)	Body	TC Yang 24- form simplified	6 weeks of health lecture followed by no activity same as exercise group
Brown Wang Ward Ebbeling Fortlage Puleo Benson & Rippe, 1995 A Center for Balance and Fitness	USA	135 caucasian, sedentary adults (40- 69yo)	54.8±8.3 women/ 50.6±8 men 66/69	16 week (45 min/3xweek)	Body Mind and breath	TC type activity	Moderate intensity walking, low intensity walking, low intensity walking plus relaxation, and usual activities

Source	Country	No.of Subjects	Mean Age Sex (M/F)	Exercise Duration	Body Mind Breath	Exercise Style	Control group
Burini Farabollini Ianucci, Rimatori Riccardi Capecci Provinciali & Ceravolo, 2006 No indication of funding	Italy	26 adults with parkinson disease	65.2±6.5 9/17	7 weeks each of Aerobics (45 min/3xweek) and Qigong (50 min/3xweek)20 sessions each with 2 months between sessions	Breathing and body	Qigong	Aerobic training sessions
Chan Qin Lau Woo Au Choy Wingyee Lee & Lee, 2004 Hong Kong health Services Research Committee and Jockey Club Center for Osteoporosis Care and Control	Hong Kong	132 sedentary postmenopaus al women	54.0±3.5 0/132	12 months (45 min/5xweek)	Body	Tai Chi Chuan Yang Style	Usual activities
Channer Barrow Barrow Osborne & Ives, 1996 No reference to funding	UK	126 (38 TC/41aerobic exercise/47 control) following MI	58 1/2	8 weeks (2xweeklyx3 an d1xweeklyx5)	Body Mind and breath	TC Wu Chian- Ch'uan	Aerobic exercise or Cardiac Support group discussed risk factor modification and problems in rehab.

Source	Country	No.of Subjects	Mean Age Sex (M/F)	Exercise Duration	Body Mind Breath	Exercise Style	Control group
Chen Yeh & Lee, 2006 No reference to funding	Taiwan	87 middle aged women	45.7 ±6.08 QG/44.6 ± 5.47 0/87	12 week	Body and breath	Qigong Baduanjin	no qigong
Cheung Lo Fong Chan Wong Wong Lam Lau Karlberg, 2005 Li Ka Shing Foundation	Hong Kong	88 older adults in community with hypertension	57.2±9.5Q/51.2 ±7.4E 37/51	16 wk (2x2 hours/week/4 weeks then monthly and encouraged to practice daily 60 min in AM and 15 min in PM	Body and breath	Guolin qigong	Exercise
Choi Moon & Song, 2005, No mention of funding	South Korea	59 living in care facility, ambulatory with at least 1 fall risk factor		12 weeks (35 min/3 time/week)	Body	Sun-style Tai Chi	Usual activities

Source	Country	No.of Subjects	Mean Age Sex (M/F)	Exercise Duration	Body Mind Breath	Exercise Style	Control group
Chou Lee Yu Macfarlane Cheng Chan & Chi, 2004 Center on Behavioral Health at the University of Hong Kong and University Research Council's Seed Funding for Basic Research at the University of Hong Kong	Hong Kong	14 community dwelling Chinese older adults with depression from a psycho- geriatric clinic	72.6±4.2 7/7	3 months (45 min/3xweek)	Body (mind implied)	Tai Chi Yang Style 18 form	waitlist
Elder, Ritenbaugh Mist Aickin Schneider Zwickey & Elmer, 2007	USA	92 adults with BMI 25- 35/women and 25-40/men with 3.5 kg wt loss following a 12 week wt loss program	47.1 13/79	12 weeks (10 hours overall with 28 min qigong sessions)	Body Mind Breath	Qigong Emie Zhen Gong	Tapas Acupressure Technique and Self-directed support

Source	Country	No.of Subjects	Mean Age Sex (M/F)	Exercise Duration	Body Mind Breath	Exercise Style	Control group
Faber Bosscher Chin Paw & vanWieringen, 2006, Vrije University, Amsterdam	Netherlands	238 (mostly frail 51% or pre- frail 48.9%) older adults living in care facility	85±6 50/188	20 week (1 x week for 4 weeks for socialization, then 2 x week for 16 weeks with 60 min exercise and 30 min social time)	Body	Tai Chi (balance exercises inspired by TC)	Functional walking or usual activities
Fransen Nairn Winstanley Lam & Edmons, 2007, National Arthritis and Musculoskeleta I Conditions Improvements grant, U of New South Wales. Dr. Lam received royalties from sale of TC for Arthritis video/DVD and book Overcoming Arthritis	Austrailia	152 older adults with chronic symptomatic hip or knee osteoarthritis	70.8±6.3TC/70 ±6.3H/69.6±6.1 C 40/112	12 week (60 min/2xweek)	Body Mind Breath per website	TC for Arthritis by Dr. Lam from Sun Style 24-forms	Hydrotherapy and wait list control

Source	Country	No.of Subjects	Mean Age Sex (M/F)	Exercise Duration	Body Mind Breath	Exercise Style	Control group
Galantino Shepard Krafft Laperriere Ducette Sorbello Barnish Condoluci & Farrar, 2005 Physical Therapy Grant from the Richard Stockton College of New Jersey	USA	38 males long term care of HIV/AIDS	Between 20 and 60	8 weeks (60 min/2x week)	Body mind breathing	TC	Exercise and usual activity
Gatts and Woollacott, 2006 No reference to funding	USA	19 Balance impaired seniors	68-92 2/17	3 weeks (1.5 hours /day/5 days/seek)	Body Mind and breath	Tai Chi Twelve Classical Tai Chi Postures	TC based and axial mobility program
Gemmell Leathem, 2006 No reference to funding	New Zealand	18 participants with traumatic brain injury symptoms	Male 51.2±8.7/Femal e 40.2±12.5 9/9	6 weeks (45 min/2 x week)	Body and breath	TC Chen Style	waitlist
Greenspan Wolf Kelley O'Grady, 2007 NIH NIA & coupons from Kroger Corporation and CVS Pharmacies	USA	269 congregate independent living, transitionally frail women with at least 1 fall in past year	>70yo and 50% over 80	48 week (60 minx2weekly increasing to 90 minutes)	Body	TC 6 simplified forms	Wellness Education

Source	Country	No.of Subjects	Mean Age Sex (M/F)	Exercise Duration	Body Mind Breath	Exercise Style	Control group
Hammond & Freeman, 2006, Derbyshire Royal Infirmary Rheumatology Charitable Trusy Fund	UK	fribomyalgia patients from a rheumatology outpatient dept 92%female	48.53±10.89 13/120	10 weeks (45 min/1xweek)	body	Tai Chi for Arthritis (part of patient education group including fibromyalgia information, poatural training, stretching and weights)	Relaxation group
Hart Kanner Gilboa-Mayo Haroeh-Peer Rozenthul- Sorokin Eldar, 2004, No reference to funding	Isreal	18, community- dwelling first stroke survivors	54.77 16/2	12 weeks (1 h/2xweek)	Body Mind Breath	TCC	Balance Exercises
Hartman Manos Winter Hartman Li & Smith, 2000 Governor's Committee on Physical Fitness and Sports, DPH, and Bureau o fFamil and Community Health Boston MA	USA	33 community dwelling with lower extremity osteoarthritis	68 5/28	12 weeks (2 / 1 hour classes	Body Mind Breath	TC 9 form Yang with	Usual care with phone calls every 2 weeks to discuss issues related to Osteoarthritis

Source	Country	No.of Subjects	Mean Age Sex (M/F)	Exercise Duration	Body Mind Breath	Exercise Style	Control group
Hass Gregor Waddell Oliver Smith Fleming Wolf, 2004	USA	28 Older adultstransitioni ng to frailty	79.5±6 TC/79.7±5.6 WE ?/?	48 weeks( 1 hour 2 X week)	body	Tai Chi 8 of 24 simplified forms	Education
Irwin Olmstead & Oxman, 2007 NIA and National Center for Complementary and Alternative Medicine and Department of Veterans Affairs Cooperative Study	USA	112 healthy older adults	70 41/71	16 weeks (3xweek/40 min)	movement relaxation and meditation	Tai Chi Chih	Health education
Irwin Pike Cole & Oxman 2003, NIH	USA	36	60 5/13	15 week (3times/week)	Body and Mind	Tai chi Chih	waitlist
Jin, 1992, No mention of funding	Australia	96 TC practitioners	34.6±8.5 males/37.8±10. 1 female 48/48	History of TC 46.4 mo males/ 34 months females 2 sessions of exposure to stress followed by respective treatment	Body and mind	Tai Chi Long form or Yang Style	Brisk walking,TC meditation, and neutral reading

Source	Country	No.of Subjects	Mean Age Sex (M/F)	Exercise Duration	Body Mind Breath	Exercise Style	Control group
Judge Lindser Underwook & Winsemius, 1993 No reference to funding	USA	21 sedentary women 62-75	68 ±3.5	6 months Length of intervention 3xweek	Body	Tai Chi simple with strength training and walking	flexibility training
Kutner Barnhart Wolf McNeely & Xu, 1997 NIH Cooperative Grant from NIA	USA	130 TC Balance training and control mostly women	76.2	15 weeks (2xweek)	Body mind breath	TC 10 modified forms from 108	Balance training and education control
Kutner, Barnhart, Wold, McNeely, & Xu, 1997. NIH Cooperative Grant UO1 AG- 09124, NIA	USA	200, older community dwelling, 80% women in study and 130 completed exit interview	76.2	15 we	Mind Body Breath	TC and Computerized center-of-mass feedback for Balance training	education

Source	Country	No.of Subjects	Mean Age Sex (M/F)	Exercise Duration	Body Mind Breath	Exercise Style	Control group
Lansinger Larsson Persson & Carlsson, 2007 Vardal Foundation, Ekhaga Foundation Development Council of Goteborg and Southern Bohuslan, Swedish Association of Registered Physiotherapist s: Minnesfonden and Renee Eanders	Sweden	122 adults with long term neck pain	43.8 ±12.9 36/86	3 month period with training sessions 10 to 12 occasions (1-2 x/week)	Mind Body and Breath	Qigong Biyun	Exercise Therapy
Hjalpfond Lee Lee Choi & Chung, 2003 No reference to funding	Korea	58 adults with hypertension	55.8±6.3Q/57.1 ±7.6C 23/35	10 weeks (3 time/week 30 min)	Body and breath	Qigong Shuxinpingxue gong	sedentary
Lee Lee Kim & Choi 2004 no mention of funding	Korea	36 adults with hypertension	52.6±5.1 Q/54.3±5.5 14/22	8 wk (2 times/wk 30 min)	Body and breath	Qigong Shuxinpingxue gong	waitlist

Source	Country	No.of Subjects	Mean Age Sex (M/F)	Exercise Duration	Body Mind Breath	Exercise Style	Control group
Lee Lee Kim & Moon, 2003 Wonkwang University School of Medicine, Iksan	Korea	58 adults with hypertension	56±5.9 Q/56.5±7.2C ?/?	10 weeks (3 time/week 30 min)	Body and breath	Qigong	Waitlist
Lee Lim & Lee, 2004 No mention of funding	Korea	36 adults with hypertension	52.6±5.1 Q/54.3±5.5 14/22	8 wk (2 times/wk)	Body and breath	Qigong Shuxinpingxue gong	waitlist
Lee y.k. Lee & Woo, 2007 No mention of funding	Hong Kong	139 Resident of care facility, ambulatory, Chinese and >	82.7 ± 7.1 45/96	26 weeks (1 hour/3xweek)	Body Mind and breath	Tai Chi	Usual activities
Li Fisher Harmer & Mcauley, 2002 NIA & National Institute of Mental Health	USA	94 physically inactive community dwelling older adults	72.8±4.7TC/72. 7±5.7C ?/?	6 month (60 min 2 x /week)	body	Tai chi Yang	waitlist
Li Fisher Harmer & McAuley, 2005, NIH NIA	USA	256 sedentary over 70 yo	77.48±4.95 ?/?	6 month (60 min 3 x /week)	Body & breath	Tai Chi Yang style 24 forms	stretching

Source	Country	No.of Subjects	Mean Age Sex (M/F)	Exercise Duration	Body Mind Breath	Exercise Style	Control group
Li Fisher Harmer & Shirai, 2003 National Institute of Mental Health and National Institute on Aging x2	USA	48	68.88±5.6	3 months (3 x/week)	Mind body and breath	Tai Chi eight form Easy	low-stress stretching exercise
Li Fisher Harmer Irbe Tearse & Weimer, 2004 NIH NIMH	USA	118 community dwelling adults over 60 with moderate sleep complaints	75.4±7.8 22/96	24 week (60 min 3x week)	Body mind and breath	Tai Chi Yang 8- form easy Tai Chi	Low Impact Exercise
Li Harmer Chaumeton Duncan Duncan, 2002 NIA	USA	94 physically inactive older adults over 65	72.9/85	6 months (60 min 2 x weekly)	Body mind	TC Yang Style 24 forms	wait-list control
Li Harmer Fisher & McAuley, 2004, NIH & NIA	USA	256 sedentary and over 70 yo, Legacy Health system	77.48±4.95 77/179	6 month (60 min 3 x /week)	Body & breath	Tai Chi Yang 24 form	stretching
Li Harmer Fisher Mcauley Chaumeton Eckstrom & Wilson, 2005, NIH & NIA	USA	256 sedentary community dwelling older adults over 70	77.48±4.95 77/179	6 month (3 times/week/60 min)	Body and breath	Tai Chi Yang style 24 forms	low-impact exercise (seated exercises, stretches, controlled breathing and relaxation

Source	Country	No.of Subjects	Mean Age Sex (M/F)	Exercise Duration	Body Mind Breath	Exercise Style	Control group
Li Harmer Mcauley Duncan Duncan Chaumeton & Fisher, 2001, NIA	USA	49 /45(control) community dwelling physically inactive adults over 65	72.8±5.1 9/85	6 month (60 min x 2 time/week)	body	Tai chi Yang 24 forms	waitlist
Li Harmer Mcauley Fisher Duncan & Duncan, 2001, NIA	USA	94 physically inactive older adults over 65	72.8±5.1 9/85	6 month (2 time/week	Body	Tai chi Yang 24 forms	waitlist
Li McAuley Harmer Duncan Chaumeton, 2001 NIA and National Institute on Drug Abuse	USA	94 physically inactive older adults over 65	72.8±5.1 9/85	6 months (60 min 2 x weekly)	Body mind	TC Yang Style 24 forms	wait-list control
Maciaszek Osinski Szeklicki Stemplewske, 2007 No Reference to funding	Poland	49 elderly, community dwelling, sedentary men with osteopenia or osteoporosis	60 to 82.1 49/0	18 week (45 minx2/week)	Body	Tai Chi 24 form	Usual activities
Mannerkorpi & Arndorw, 2004 Sweedish Rheumatism Association & Swedish Research Council	Sweden	36 Women with Fibromyalgia	45±8.3 0/36	3 month ( 20 minutes1 time/wk)	Body mind breath	Qigong with Body Awareness	Usual activities

Source	Country	No.of Subjects	Mean Age Sex (M/F)	Exercise Duration	Body Mind Breath	Exercise Style	Control group
Manzaneque Vera Maldonado Carranque et al, 2004	Spain	29 healthy young adults	18-21 14/15	1 month ( 30min/5 days/week)	Body mind and breath	Qigong Eight Pieces of Brocade (low intensity)	Usual activities
McGibbon Krebs Parker Scarborough Wayne & Wolf, 2005 NIH	USA	36 older adults with vestibulopathy	56.9±11.6 VR/ 61.7±11.3TC ?/?	10 weeks (1 time/week 70 min)	Body and mind	Tai Chi Yang	Vestibular Rehabilitation
McGibbon Krebs Wolf Wayne Scarborough & Parker, 2004 NIH	USA	26 with Vestibulopathy	58±11.2 T/54.5±11.2VR 11/15	10 weeks (1 time/week 70 min)	Body and Mind	Tai Chi Yang	Vestibular Rehabilitation
Motivala Sollers Thayer & Irwin, 2006 Grants MH55253, AG18367 and T32-MH19925 and the Cousins Center for Psychoneuroim munology	USA	32 out of 63 older adults who completed RCT for Herpes Zoster risk in aging study	68±7TC/69±7C 14/18	25 week TC	body	TCC	Passive-rest and slow moving physical movement

Source	Country	No.of Subjects	Mean Age Sex (M/F)	Exercise Duration	Body Mind Breath	Exercise Style	Control group
Mustain Katula Gill Roscoe Lang & Murphy, 2004	USA	21 women treated for breast cancer	52±9 0/21	12 week (60 min/3 time/week)	Body mind breath	Tai Chi Yang and Chi Kung	Psychosocial support
Mustain Katula Zhao, 2006 Susan Stout Exercise Science Research Fund, and Sally Schindel Cone Women's and Gender Studies Research Fund at the University of North Carolina at Greenboro. Am Cancer Society assisted with recruitment	USA	21 women treated for breast cancer	52±9 0/21	12 week (60 min/3 time/week	Body mind breath	Tai Chi Yang and Chi Kung	Psychosocial support

Source	Country	No.of Subjects	Mean Age Sex (M/F)	Exercise Duration	Body Mind Breath	Exercise Style	Control group
Nowalk Prendergast Bayles D'Amico & Colvin, 2001 Scaife Family Foundatin, Pittsburgh, Penn and Jewish Foundation	USA	110 long term care residents	84 7/48	13 to 28 months (? Minutes/ 3xweek)	Body and mind	Tai Chi with behavioral and psychotherapeu tic methods	Physical therapy weight training and education control
Orr Tsang Lam Comino Singh, 2006 Douglas Hanly Moir Pathology and Deiser Sports health donated K400 Electronics	Australia	38 sedentary, community dwelling, type 2 diabetics	65.9±7.4 TC 64.9±8.1 Co 8/30	16 week (45 min/2xweek)	Body	Tai Chi for diabetes (12 movement hybrid from Yang and Sun	Sham exercise (seated calisthenics and stretching)
Pippa Manzoli Corti Congedo Romanazzi & Parruti, 2007 No mention of funding	Italy	43 older adults following dx of stable chronic atrial fibrillation	68±8 30/13	16 week (90 minutes/2xwee k)	Mind body and breath	Qigong	wait-list control
Sattin Easley Wolf Chen & Kutner, 2005	USA	transitionally frail over 70 with history of 1 or more falls in past year (55 African americans)	70-97 12/205	48 weeks (2 time/week 60- 90 min)	Body	Tai Chi 6 of 24 Simplified	Wellness Education

Source	Country	No.of Subjects	Mean Age Sex (M/F)	Exercise Duration	Body Mind Breath	Exercise Style	Control group
Shen Williams Chyu Paige Stephens Chauncey Prabhu Ferris & Yeh, 2007 Helen Jones Foundation and Carillon Education and Research Center, Lubbock TX	USA	28 sedentary older adults from a senior living facility	78.8±1.3 TC/79.4±2.2 C 7/21	24 week (40 minutes/3xwee k)	Body	TC Yang Style Simplified 24 forms	Resistance training
Song Lee Lam & Bae, 2003 Korea Research Foundation Grant	Korea	72 women from outpatient clinics or public health centers with osteoarthritis and no exercise history for 1 year prior	63	12 week (? 45 min/3xweek for 2 weeks then 1xweek for 10 weeks)	body mind	Tai Chi Sun Style modified for arthritics	Usual activities
Song Lee Lam & Bae, 2007, Korea Research Foundation	Korea	72 women from outpatient clinics or public health centers with osteoarthritis and no exercise history for 1 year prior	63	12 week (1 hour/3xweek for 2 weeks then 1xweek for 10 weeks)	Body mind breathing	Tai Chi Sun- style	control?

Source	Country	No.of Subjects	Mean Age Sex (M/F)	Exercise Duration	Body Mind Breath	Exercise Style	Control group
Stenlund Lindstrom Granlund & Burell, 2005	Sweden	95 adults with CAD	77±3Q/78±3C 66/29	12 weeks (1 hour QG and 2 hours of discussion on various themes)	Body and breath	Qigong (TC & Medicinsk Qigong)	Usual activities
Thomas Hong Tomlinson Lau Lam Sanderson Woot, 2005 University Grants Council, University of Hong Kong	Hong Kong	207 healthy community dwelling older adults	68.8±2.9 113/94	12 months( 1 hour/3xweek)	body mind	Tai Chi Yang style 24 forms or resistance training	Usual activities
Tsai Wang Chan Lin Wang Tomlinson Hsieh Yang Liu, 2003	Taiwan	76 adults/ No PA	52 18/19	12 wk ( 3 times/wk/50 minutes)	body mind	tai chi Yang	Usual activities
Tsang H.W. Fung & Chan, 2006, Department of Rehabilitation Sciences, Hong Kong Polytechnic University	Hong Kong	83 adults over 65 with depression and chronic illness	82.11±7.19tc/82 .74±6.83c 16/66	16 weeks (30- 45 minutes x 3 /week)	Body Mind and breath	Qigong Baduanjin	Newspaper reading group with same intensity

Source	Country	No.of Subjects	Mean Age Sex (M/F)	Exercise Duration	Body Mind Breath	Exercise Style	Control group
Tsang HW Mok Yeung & Chan, 2003, Area of Strategic Development Grant, Dept of Rehabilitation Services, Hong Kong Polytechnic University	Hong Kong	50 older adults with chronic disease	74.6±8.95 26/24	12 week (60 minutes/ 2xweek)	Body Mind and breath	Qigong Eight- Section Brocades	basic rehabilitation activities
Tsang T. Orr Lam Comino & Singh, 2007 School of Exercise and Sport Science, Universityu of Sidney and blood tests by Douglass Hanly Moir Pathology	Australia	38 sedentary, community dwelling, type 2 diabetics	65±8 8/30	16 week (45 min/2xweek)	Body	Tai Chi for diabetes (12 movement hybrid from Yang and Sun	Sham exercise (seated calisthenics and stretching)

Source	Country	No.of Subjects	Mean Age Sex (M/F)	Exercise Duration	Body Mind Breath	Exercise Style	Control group
Voukelatos Cumming Lord Rissel, 2007 New South Wales Health Department, Helath Promotion Research Demonstration Grant Scheme	Australia	702 community dwelling adults >60 (84% female)	69 ± 6.5 112/589	16 weeks (60 min/1xweek)	No mention	Tai Chi 38 Programs mostly Sun- style (83%) Yang (3%)	Wait list
Wang Roubenoff Lau Kalish Schmid Tighiouart Rones Hibberd, 2005 General Clinical Research Center and Tufts-New England Medical Center	USA	20 Comm dwelling with Rheumatoid Arthritic class I or II	48±10TC/51±1 7	12 week (1 hour/2xweek)	Not defined	Tai Chi Yang Style	Stretching and wellness education

Source	Country	No.of Subjects	Mean Age Sex (M/F)	Exercise Duration	Body Mind Breath	Exercise Style	Control group
Wennenberg Gunnarsson Ahlstrom, 2004 Claes Groschinsky Memorial fund, the Centre for Rehabilitation Research in Orebro, the Country of Orebro and the Department of Caring Sciences, University of Orebro, Orebro, Sweden	Sweden	36 patients with Muscular Dystrophy	Range 33-80 19/17	12wk		Qigong	Wait-list control
Winsmann, 2006 dissertation	USA	47 male Veterans	49.55±6.29	4 weeks (75 minutes/2xwee kly)	Body Mind Breath	Tai Chi Chuan Yang Style	Usual activities

Source	Country	No.of Subjects	Mean Age Sex (M/F)	Exercise Duration	Body Mind Breath	Exercise Style	Control group
Wolf O"Grady Easley Guo Kressig & Kutner, 2006, NIH NIA & coupons from Kroger Corporation and CVS Pharmacies	USA	311 transitionally frail with average of 5.6 comorbidities	70-97 Mean 80.9 20/291	48 weeks (2 time/week 60- 90 min)	Body	Tai chi 6 of 24 simplified forms	Wellness Education
Wolf Sattin Kutner O"Grady Greenspan & Gregor, 2003, NIH NIA & coupons from Kroger Corporation and CVS Pharmacies	USA	291 (W). 20 (men) Transitionally frail and at least 1 reported fall	70 to 97 80.9±6.6T/80.8 ±5.8C 20/291	48 weeks (2 time/week 60- 90 min)	body	Tai chi 6 of 24 simplified forms	Wellness Education
Wolf, Barnhart Ellison Coogler & Gorak, 1997, NIA NIH, US Public Health Service	USA	72 inactive older adults	77.7±5.6TC/77. 7±605BT/75.72 ±4.9ED 12/60	15 weeks (1 hour/2x Week for TC group)	Body	Tai Chi 108 forms simplified to 10 forms or balance training	Education control
Wolf, Barnhart Kutner McNeelly Coogler & Xu, 2003 from 1990's, NIH grant from NIA	USA	200 community dwellling adults over 70	76.2 58/242	15 weeks (45 minutes weekly in class plus 15 min 2 x daily)	Mind and body	Tai Chi or Balance Training	Education

Source	Country	No.of Subjects	Mean Age Sex (M/F)	Exercise Duration	Body Mind Breath	Exercise Style	Control group
Woo Hong Lau & Lynn, 2007, Research Grants Council of Hong Kong	Hong Kong, China	180 community dwelling older adults 65-75	68.2±2.4M & 69.67±2.8WTC/ 68.67±3M& 69.57±3.2RT/6 8.07±3M &69.27±3 C90/90	12 months (?time/3x week)	body	Tai Chi Yang style 24 forms and resistance training	no exercise
Yang, Verkuilen Rosengren, Mariani, Reed, Grubisich & Woods, 2007 No reference to funding	USA	50 sedentary older adults who received flu immunization	77.2±1.3 13/37	20 weeks (60 min / 3x week)	body and mind	Qigong (sitting and standing) and Taiji Chen style Esential 48 movement form	wait list
Yeh Wood Lorell Stevenson Eisenberg Wayne et al, 2005, Bernard Osher Foundation and Beth Israel Deaconess Medical Center Clinical Research Center Grant from NIH and WT Young Foundation	USA	30 patients with chronic stable heart failure	64 +/- 13 years 19/11	12 weeks ( 60 min/ 2 time/week)	body and mind	Tai chi Yang- style 5 core movements	usual care including pharmacologic therapy, dietary and exercise counseling

Source	Country	No.of Subjects	Mean Age Sex (M/F)	Exercise Duration	Body Mind Breath	Exercise Style	Control group
Young Appel Jee Miller, 1999 HL 02642 and RR 00722 to Johns Hopkins Outpatient General Clinical Resource Center	USA	62 (79% female and 45.2% black) with BP between 130 and 159 and not taking medications for hypertension or insulin	66.7±5.2 13/49	12 weeks (1 hour 2 x week class withgoal of 30-45 min/4- 5 days /week)	body and mind	Tai Chi, Yang Style 13 movements	Aerobic exercise class at 40 to 60% HR reserve
Zhang Ishikawa- Takata Yamazaki Morita & Ohta, 2006 Health and Labor Science Research Grant for Research on Dimentia and Fracture from Ministry of Health, Labor and Welfare, Japan	Japan	47 adults over 60 with poor balance	70.2±3.6T/70.6 ±4.9C 25/22	8 weeks (60 min/7 x week)	Body Mind and Breath	Tal chi simplified 24 forms Zhou	Usual care, no contact

Source	Cardio/Pulmonary	Function	Falls & Balance	QOL	Self-efficacy	Patient Reported Outcomes	Disease
Audette Jin Newcomer Stein Duncan & Frontera, 2006 Department of Physical Medicine & Rehabilitation, Harvard Medical School	Low Frequency↓		strength, flexibility and balance↑				
Barrow Bedford Ives O'Toole & Channer, 2007, British Heart Foundation	walk ↑					Perceived symptoms of heart faillure ↓	

Source	Cardio/Pulmonary	Function	Falls & Balance	QOL	Self-efficacy	Patient Reported Outcomes	Disease
Brismee Paige Chyu Boatright Hagar McCaleb Quintela Feng Zu Shen, 2007, Lubbock Endowed Professorship Earnings and Texas Tech University Health Sciences Center School of allied Health Sciences students' funding		Physical function↑				Pain and adverse outcomes↑	Osteoarthritis
Brown Wang Ward Ebbeling Fortlage Puleo Benson & Rippe, 1995 A Center for Balance and Fitness	Peak Vo2↓ for TC group/all others ↑. exercise intensity↑ for TC			Self-esteem, life satisfaction etc↑ all groups			

Source	Cardio/Pulmonary	Function	Falls & Balance	QOL	Self-efficacy	Patient Reported Outcomes	Disease
Burini Farabollini Ianucci, Rimatori Riccardi Capecci Provinciali & Ceravolo, 2006 No indication of funding				Parkinson's disease questionnaire NC		Unified Parkinson's Disease Rating Scale and Brown's Disabillity Scale/nc	Parkinsons disease and disability/nc
Chan Qin Lau Woo Au Choy Wingyee Lee & Lee, 2004 Hong Kong health Services Research Committee and Jockey Club Center for Osteoporosis Care and Control						fractures(1 TC and 3 control) Bone mineral density↑	Bone mineral density
Channer Barrow Barrow Osborne & Ives, 1996 No reference to funding	Diastolic BP and resting HR↓Systolic BP (both groups compared to control)↓					motivation to exercise	History MI

Source	Cardio/Pulmonary	Function	Falls & Balance	QOL	Self-efficacy	Patient Reported Outcomes	Disease
Chen Yeh & Lee, 2006 No reference to funding						Bone Density ↑ Interleuikin-6↓	Bone loss
Cheung Lo Fong Chan Wong Wong Lam Lau Karlberg, 2005 Li Ka Shing Foundation	BP BMI↓ both groups			QOL↑ both groups			Hypertension
Choi Moon & Song, 2005, No mention of funding			falls no change, but falls efficacy for TC ↑ muscle strength, balance, flexibility and mobility all improved				fall history

Source	Cardio/Pulmonary	Function	Falls & Balance	QOL	Self-efficacy	Patient Reported Outcomes	Disease
Chou Lee Yu Macfarlane Cheng Chan & Chi, 2004 Center on Behavioral Health at the University of Hong Kong and University Research Council's Seed Funding for Basic Research at the University of							depression
Hong Kong Elder, Ritenbaugh Mist Aickin Schneider Zwickey & Elmer, 2007	Wt loss maintenance only for TAT group					General Health improved	

Source	Cardio/Pulmonary	Function	Falls & Balance	QOL	Self-efficacy	Patient Reported Outcomes	Disease
Faber Bosscher Chin Paw & vanWieringen, 2006, Vrije University, Amsterdam			Falls clinically lower for TC group. Fall risk↓ and physical function ↑ in prefrail group compared to frail combining exercise			Groningen Activity Restriction scale↑ for FW group	
Fransen Nairn Winstanley Lam & Edmons, 2007, National Arthritis and Musculoskeleta I Conditions Improvements grant, U of New South Wales. Dr. Lam received royalties from sale of TC for Arthritis video/DVD and book Overcoming Arthritis		treatment effect for physical function moderate for both interventions and only for timed stair climb for TC group		QOL† hydrotherapy		Pain related to osteoarthritis↓ both intervention groups	Chronic symptomatic hip or knee osteoarthritis

Source	Cardio/Pulmonary	Function	Falls & Balance	QOL	Self-efficacy	Patient Reported Outcomes	Disease
Galantino Shepard Krafft Laperriere Ducette Sorbello Barnish Condoluci & Farrar, 2005 Physical Therapy Grant from the Richard Stockton College of New		functional and physical measures↑ exercise groups		QOL↑ exercise groups SWB all groups ↑			HIV/AIDS
Jersey Gatts and Woollacott, 2006 No reference to funding		Muscle contraction improved with TC	TUG ↓Functional reach for TC↑				Balance impaired
Gemmell Leathem, 2006 No reference to funding				QOL only role activities less impaired for TC↓			Traumatic brain injury
Greenspan Wolf Kelley O'Grady, 2007 NIH NIA & coupons from Kroger Corporation and CVS Pharmacies						SIP ↓ for physical dimension and ambulation. Self rated health n/c	Transitionally frail

Source	Cardio/Pulmonary	Function	Falls & Balance	QOL	Self-efficacy	Patient Reported Outcomes	Disease
Hammond & Freeman, 2006, Derbyshire Royal Infirmary Rheumatology Charitable Trusy Fund					Self-efficacy↑	pain and fibromyalgia symptoms↑ health status,	fibromyalgia
Hart Kanner Gilboa-Mayo Haroeh-Peer Rozenthul- Sorokin Eldar, 2004, No reference to funding		general function n/c	balance N/C for TC control ↑	Well being ↑		general health not reported	Stroke
Hartman Manos Winter Hartman Li & Smith, 2000 Governor's Committee on Physical Fitness and Sports, DPH, and Bureau o fFamil and Community Health Boston MA		functional mobility n/c			Arthritis SE ↑	QOL ↑	Arthritis

Source	Cardio/Pulmonary	Function	Falls & Balance	QOL	Self-efficacy	Patient Reported Outcomes	Disease
Hass Gregor Waddell Oliver Smith Fleming Wolf, 2004			Gait ↑				
Irwin Olmstead & Oxman, 2007 NIA and National Center for Complementary and Alternative Medicine and Department of Veterans Affairs Cooperative Study				QOL general health↑			Given VZV vacccine
Irwin Pike Cole & Oxman 2003, NIH				QOL ↑ TC with low baseline scores			History of varicella
Jin, 1992, No mention of funding							Exposure to stress

Source	Cardio/Pulmonary	Function	Falls & Balance	QOL	Self-efficacy	Patient Reported Outcomes	Disease
Judge Lindser Underwook & Winsemius, 1993 No reference to funding			Single leg stance and force production ↑ for TC group				
Kutner Barnhart Wolf McNeely & Xu, 1997 NIH Cooperative Grant from NIA		Physical function ↑		MOS↑			Healthy older aduts
Kutner, Barnhart, Wold, McNeely, & Xu, 1997. NIH Cooperative Grant UO1 AG- 09124, NIA							

Source	Cardio/Pulmonary	Function	Falls & Balance	QOL	Self-efficacy	Patient Reported Outcomes	Disease
Lansinger		Grip strength				Neck pain and	
Larsson		and Cervical				disability both	
Persson &		ROM both				groups ↓	
Carlsson, 2007		groups ↑					
Vardal							
Foundation,							
Ekhaga							
Foundation							
Development							
Council of							
Goteborg and							
Southern							
Bohuslan,							
Swedish							
Association of							
Registered							
Physiotherapist							
s:							
Minnesfonden							
and Renee							
Eanders							
Hjalpfond							
Lee Lee Choi &	BP ↓ ventilatory						Hypertension
Chung, 2003	function ↑						
No reference to							
funding							
Lee Lee Kim &	BP and lipids↓						Hypertension
Choi 2004 no							
mention of							
funding							

Source	Cardio/Pulmonary	Function	Falls & Balance	QOL	Self-efficacy	Patient Reported Outcomes	Disease
Lee Lee Kim & Moon, 2003 Wonkwang University School of Medicine, Iksan	·						Hypertension
Lee Lim & Lee, 2004 No mention of funding	BP↓				Self efficacy and perceived benefits↑		Hypertension
Lee y.k. Lee & Woo, 2007 No mention of funding				HRQOL↑			
Li Fisher Harmer & Mcauley, 2002 NIA & National Institute of Mental Health				SF general tower levels of physical function and higher depression at baseline reported greater improvement	Self Efficacy↑		Sedentary older adults
Li Fisher Harmer & McAuley, 2005, NIH NIA			Falls Self- efficacy↑		Falls Self- efficacy↑ (mediator)		

Source	Cardio/Pulmonary	Function	Falls & Balance	QOL	Self-efficacy	Patient Reported Outcomes	Disease
Li Fisher Harmer & Shirai, 2003 National Institute of Mental Health and National Institute on Aging x2		functional ability ↑	One leg balance, and function ↑	ADL, health status, SF-12 mental and physical ↑			Older Adults
Li Fisher Harmer Irbe Tearse & Weimer, 2004 NIH NIMH						Sleep quality ↑	
Li Harmer Chaumeton Duncan Duncan, 2002 NIA						Self-esteem↑	Sedentary older adults
Li Harmer Fisher & McAuley, 2004, NIH & NIA			Reported fewer falls for TC & Balance ↑				Sedentary older adults
Li Harmer Fisher Mcauley Chaumeton Eckstrom & Wilson, 2005, NIH & NIA		physical performance ↑	Reported fewer falls for TC & Balance ↑			Falls and survey of activities	Sedentary older adults

Source	Cardio/Pulmonary	Function	Falls & Balance	QOL	Self-efficacy	Patient Reported Outcomes	Disease
Li Harmer Mcauley Duncan Duncan Chaumeton & Fisher, 2001, NIA		SF-20 physical Function ↑					Sedentary older adults
Li Harmer Mcauley Fisher Duncan & Duncan, 2001, NIA		SF-20 physical Function ↑			Self-efficacy ↑		Sedentary older adults
Li McAuley Harmer Duncan Chaumeton, 2001 NIA and National Institute on Drug Abuse					Self-efficacy ↑ and exercise adherence		Sedentary older adults
Maciaszek Osinski Szeklicki Stemplewske, 2007 No Reference to funding			Balance↑				Osteopenia or osteoporosis
Mannerkorpi & Arndorw, 2004 Sweedish Rheumatism Association & Swedish Research Council		Physical function n/c				Body Awareness ↑ fibromyalgia symptoms n/c	Fibromyalgia

Source	Cardio/Pulmonary	Function	Falls & Balance	QOL	Self-efficacy	Patient Reported Outcomes	Disease
Manzaneque Vera Maldonado Carranque et al, 2004							none
McGibbon Krebs Parker Scarborough Wayne & Wolf, 2005 NIH		TC group improved gait speed and step length. VR improved stance duration and step length	Balance both groups ↑				Balance impaired
McGibbon Krebs Wolf Wayne Scarborough & Parker, 2004 NIH			VR group Gaze stability↑TC group whole body stability↑				Balance impaired
Motivala Sollers Thayer & Irwin, 2006 Grants MH55253, AG18367 and T32-MH19925 and the Cousins Center for Psychoneuroim munology	TC ↓BP, HR n/c						History of varicella

Source	Cardio/Pulmonary	Function	Falls & Balance	QOL	Self-efficacy	Patient Reported Outcomes	Disease
Mustain Katula Gill Roscoe Lang & Murphy, 2004				HRQOL↑			Breast cancer survivors
Mustain Katula Zhao, 2006 Susan Stout Exercise Science Research Fund, and Sally Schindel Cone Women's and Gender Studies Research Fund at the University of North Carolina at Greenboro. Am Cancer Society assisted with recruitment		muscle strength and flexibility ↑					Breast cancer survivors

Source	Cardio/Pulmonary	Function	Falls & Balance	QOL	Self-efficacy	Patient Reported Outcomes	Disease
Nowalk Prendergast Bayles D'Amico & Colvin, 2001 Scaife Family Foundatin, Pittsburgh, Penn and Jewish Foundation			falls No difference between groups				Fall risk
Orr Tsang Lam Comino Singh, 2006 Douglas Hanly Moir Pathology and Deiser Sports health donated K400 Electronics		mobility ↑ both with compliance related to improvement lower blood glucose and body fat improved gait speed.					diabetes
Pippa Manzoli Corti Congedo Romanazzi & Parruti, 2007 No mention of funding	Ejection fraction, BMI, cholesterol n/c	physical					Artial fibrillation
Sattin Easley Wolf Chen & Kutner, 2005			balance↑ and fear of falling↓				Transitionally frail

Source	Cardio/Pulmonary	Function	Falls & Balance	QOL	Self-efficacy	Patient Reported Outcomes	Disease
Shen Williams Chyu Paige Stephens Chauncey Prabhu Ferris & Yeh, 2007 Helen Jones Foundation and Carillon Education and Research Center, Lubbock TX							Sedentary older adults on bone metabolism Bone biomarkers, serum PTH, serum Ca ↑ urinary Ca ↓
Song Lee Lam & Bae, 2003 Korea Research Foundation Grant	BMI, cv function n/c		Balance and abdominal muscle strenght ↑ Flexibility and upper body or knee strength no difference			Pain and perceived difficulties in physical functioning ↓	Osteoarthritis
Song Lee Lam & Bae, 2007, Korea Research Foundation						Symptoms of Arthritis ↓ Health behaviors and motivation to perform exercise↑	Osteoarthritis

Source	Cardio/Pulmonary	Function	Falls & Balance	QOL	Self-efficacy	Patient Reported Outcomes	Disease
Stenlund Lindstrom Granlund & Burell, 2005		Self reported activity level ↑	Fear of falling n/c Balance ↑			PA and falls efficacy	Coronary Artery Disease
Thomas Hong Tomlinson Lau Lam Sanderson Woot, 2005 University Grants Council, University of Hong Kong	Energy expenditure for TC and RT groups ↑Waist circumference and HR ↓ Insulin sensitivity improved for RT group						CV risk factors
Tsai Wang Chan Lin Wang Tomlinson Hsieh Yang Liu, 2003	density lipoprotein						Hypertension Stage I
Tsang H.W. Fung & Chan, 2006, Department of Rehabilitation Sciences, Hong Kong Polytechnic University				General Health and Self- concept ↑	Self efficacy and perceived benefits↑		Depression (elderly)

Source	Cardio/Pulmonary	Function	Falls & Balance	QOL	Self-efficacy	Patient Reported Outcomes	Disease
Tsang HW Mok Yeung & Chan, 2003, Area of Strategic Development Grant, Dept of Rehabilitation Services, Hong Kong Polytechnic University				Physical health, ADL psychological health and social relationships improved, not significant			
Tsang T. Orr Lam Comino & Singh, 2007 School of Exercise and Sport Science, Universityu of Sidney and blood tests by Douglass Hanly Moir Pathology		Muscle function n/c Maximal gait speed both groups ↑	Balance index both groups ↑	QOL ↑ but over time n/c			

Source	Cardio/Pulmonary	Function	Falls & Balance	QOL	Self-efficacy	Patient Reported Outcomes	Disease
Voukelatos Cumming Lord Rissel, 2007 New South Wales Health Department, Helath Promotion Research Demonstration Grant Scheme			5 out of 6 balance scores ↑ Falls less for TC				helathy older adults
Wang Roubenoff Lau Kalish Schmid Tighiouart Rones Hibberd, 2005 General Clinical Research Center and Tufts-New England Medical Center		Functional capacity ↑	Balance ↑	QOL ↑		disability and pain ↓	Rheumatoid Arthritis

Source	Cardio/Pulmonary	Function	Falls & Balance	QOL	Self-efficacy	Patient Reported Outcomes	Disease
Wennenberg Gunnarsson Ahlstrom, 2004 Claes Groschinsky Memorial fund, the Centre for Rehabilitation Research in Orebro, the Country of Orebro and the Department of Caring Sciences, University of Orebro, Orebro, Sweden			Balance tendency to maintain during tx and decline when not	HRQOL and coping relatively n/c only positive reappraisal coping \$\p\$		Perceived general health ↑	Muscular Dystrophy
Winsmann, 2006 dissertation						Dissociative experineces and symptom checklist improved, not ss	Dissociation, anxiety, and depression

Source	Cardio/Pulmonary	Function	Falls & Balance	QOL	Self-efficacy	Patient Reported Outcomes	Disease
Wolf O"Grady Easley Guo Kressig & Kutner, 2006, NIH NIA & coupons from Kroger Corporation and CVS	BMI, BP and HR TC ↓ WE ↑	Gait speed  ↑same and time for chair-rises  TC ↓ and WE ↑					frail elder
Pharmacies Wolf Sattin Kutner O"Grady Greenspan & Gregor, 2003, NIH NIA & coupons from Kroger Corporation and CVS Pharmacies			TC lower risk for falls from month 4 to 12				frail elder
Wolf, Barnhart Ellison Coogler & Gorak, 1997, NIA NIH, US Public Health Service			Greater dispersion and lateral motion and fear of falling ↓				Balance impaired
Wolf, Barnhart Kutner McNeelly Coogler & Xu, 2003 from 1990's, NIH grant from NIA	BP↓	function	Fear of falling and fall risk↓ Balance↑				none

Source	Cardio/Pulmonary	Function	Falls & Balance	QOL	Self-efficacy	Patient Reported Outcomes	Disease
Woo Hong Lau & Lynn, 2007, Research Grants Council of Hong Kong			Balance, falls and strength n/c			Bone mineral loss less for women	none
Yang, Verkuilen Rosengren, Mariani, Reed, Grubisich & Woods, 2007 No reference to funding							none
Yeh Wood Lorell Stevenson Eisenberg Wayne et al, 2005, Bernard Osher Foundation and Beth Israel Deaconess Medical Center Clinical Research Center Grant from NIH and WT Young Foundation				QOL↑			Chronic stable heart failure

Source	Cardio/Pulmonary	Function	Falls & Balance	QOL	Self-efficacy	Patient Reported Outcomes	Disease
Young Appel Jee Miller, 1999 HL 02642 and RR 00722 to Johns Hopkins Outpatient General Clinical Resource Center	estimated aerobic capacity tended to increase for Aerobic exercise group, not						Hypertension
Zhang Ishikawa Takata Yamazaki Morita & Ohta, 2006 Health and Labor Science Research Grant for Research on Dimentia and Fracture from Ministry of Health, Labor and Welfare, Japan			balance and function↑ fear of falling↓				frail elder

Source	Neurological	Psychological	Stress Relateed	Adverse effects	Immunity
Audette Jin Newcomer Stein Duncan & Frontera, 2006 Department of Physical Medicine & Rehabilitation, Harvard Medical School					
Barrow Bedford Ives O'Toole & Channer, 2007, British Heart Foundation		Depression↓ both groups		None	

Source	Neurological	Psychological	Stress Relateed	Adverse effects	Immunity
Brismee Paige Chyu Boatright Hagar McCaleb Quintela Feng Zu Shen, 2007, Lubbock Endowed Professorship Earnings and Texas Tech University Health Sciences Center School of allied Health Sciences students' funding					
Brown Wang Ward Ebbeling Fortlage Puleo Benson & Rippe, 1995 A Center for Balance and Fitness		Anger and mood ↓ fo women in TC group Selfesteem for all groups↑			

Source	Neurological	Psychological	Stress Relateed	Adverse effects	Immunity
Burini Farabollini Ianucci, Rimatori Riccardi Capecci Provinciali & Ceravolo, 2006 No indication of funding		depression/nc			
Chan Qin Lau Woo Au Choy Wingyee Lee & Lee, 2004 Hong Kong health Services Research Committee and Jockey Club Center for Osteoporosis Care and Control					
Channer Barrow Barrow Osborne & Ives, 1996 No reference to funding					

Source	Neurological	Psychological	Stress Relateed	Adverse effects	Immunity
Chen Yeh & Lee, 2006 No reference to funding					
Cheung Lo Fong Chan Wong Wong Lam Lau Karlberg, 2005 Li Ka Shing Foundation		Anxiety and Depression ↓ both groups			
Choi Moon & Song, 2005, No mention of funding					

Source	Neurological	Psychological	Stress Relateed	Adverse effects	Immunity
Chou Lee Yu Macfarlane Cheng Chan & Chi, 2004 Center on Behavioral Health at the University of Hong Kong and University Research Council's Seed Funding for Basic Research at the University of Hong Kong		depression↓			
Elder, Ritenbaugh Mist Aickin Schneider Zwickey & Elmer, 2007		depression and social support all n/c		none	

Source	Neurological	Psychological	Stress Relateed	Adverse effects	Immunity
Faber Bosscher Chin Paw & vanWieringen, 2006, Vrije University, Amsterdam					
Fransen Nairn Winstanley Lam & Edmons, 2007, National Arthritis and Musculoskeleta I Conditions Improvements grant, U of New South Wales. Dr. Lam received royalties from sale of TC for Arthritis video/DVD and book Overcoming Arthritis		Psychological well being ↑ all scores for hydrotherapy and only		none	

Source	Neurological	Psychological	Stress Relateed	Adverse effects	Immunity
Galantino Shepard Krafft		POMS exercise groups ↑			
Laperriere					
Ducette Sorbello					
Barnish					
Condoluci &					
Farrar, 2005					
Physical					
Therapy Grant					
from the					
Richard					
Stockton					
College of New					
Jersey					
Gatts and					
Woollacott,					
2006 No reference to					
funding					
Gemmell		Self-esteem			
Leathem, 2006		both groups ↑			
No reference to		and mood			
funding		changes			
		improved all but			
		tired for TC			
Greenspan					
Wolf Kelley					
O'Grady, 2007					
NIH NIA &					
coupons from					
Kroger					
Corporation					
and CVS					
Pharmacies					

Source	Neurological	Psychological	Stress Relateed	Adverse effects	Immunity
Hammond & Freeman, 2006, Derbyshire Royal Infirmary Rheumatology Charitable Trusy Fund		Anxiety and depression N/C			
Hart Kanner Gilboa-Mayo Haroeh-Peer Rozenthul- Sorokin Eldar, 2004, No reference to funding				none	
Hartman Manos Winter Hartman Li & Smith, 2000 Governor's Committee on Physical Fitness and Sports, DPH, and Bureau o fFamil and Community Health Boston MA					

Source	Neurological	Psychological	Stress Relateed	Adverse effects	Immunity
Hass Gregor Waddell Oliver Smith Fleming Wolf, 2004					
Irwin Olmstead & Oxman, 2007 NIA and National Center for Complementary and Alternative Medicine and Department of Veterans Affairs Cooperative Study		depression both groups ↑			VZV and T- Cell↑
Irwin Pike Cole & Oxman 2003, NIH					VZV CMI ↑
Jin, 1992, No mention of funding		POMS↑ all treatments↓	Stress reduction BP ↑ TC and Brisk Walking		

Source	Neurological	Psychological	Stress Relateed	Adverse effects	Immunity
Judge Lindser Underwook & Winsemius, 1993 No reference to funding					
Kutner Barnhart Wolf McNeely & Xu, 1997 NIH Cooperative Grant from NIA		Rosenberg self esteem ↑			
Kutner, Barnhart, Wold, McNeely, & Xu, 1997. NIH Cooperative Grant UO1 AG- 09124, NIA					

Source	Neurological	Psychological	Stress Relateed	Adverse effects	Immunity
Lansinger					
Larsson					
Persson &					
Carlsson, 2007					
Vardal					
Foundation,					
Ekhaga					
Foundation					
Development					
Council of					
Goteborg and					
Southern					
Bohuslan,					
Swedish					
Association of					
Registered					
Physiotherapist					
s:					
Minnesfonden					
and Renee					
Eanders					
Hjalpfond					
Lee Lee Choi &			Urinary		
Chung, 2003			Catecholamine		
No reference to			levels ↓		
funding					
Lee Lee Kim &					
Choi 2004 no					
mention of					
funding					

Source	Neurological	Psychological	Stress Relateed	Adverse effects	Immunity
Lee Lee Kim & Moon, 2003 Wonkwang University School of Medicine, Iksan		Self report stress↓	Norepinephrine , Epinephrine, and cortisol↓		
Lee Lim & Lee, 2004 No mention of funding		Emotional state			
Lee y.k. Lee & Woo, 2007 No mention of funding		self esteem ↑			
Li Fisher Harmer & Mcauley, 2002 NIA & National Institute of Mental Health					
Li Fisher Harmer & McAuley, 2005, NIH NIA		fear of falling ↓			

Source	Neurological	Psychological	Stress Relateed	Adverse effects	Immunity
Li Fisher Harmer & Shirai, 2003 National Institute of Mental Health and National Institute on Aging x2 Li Fisher Harmer Irbe Tearse & Weimer, 2004 NIH NIMH					
Li Harmer Chaumeton Duncan Duncan, 2002 NIA		Self-esteem↑			
Li Harmer Fisher & McAuley, 2004, NIH & NIA					
Li Harmer Fisher Mcauley Chaumeton Eckstrom & Wilson, 2005, NIH & NIA					

Source	Neurological	Psychological	Stress Relateed	Adverse effects	Immunity
Li Harmer Mcauley Duncan Duncan Chaumeton & Fisher, 2001, NIA Li Harmer Mcauley Fisher Duncan &					
Duncan, 2001, NIA Li McAuley Harmer Duncan Chaumeton, 2001 NIA and National Institute on Drug Abuse					
Maciaszek Osinski Szeklicki Stemplewske, 2007 No Reference to funding					
Mannerkorpi & Arndorw, 2004 Sweedish Rheumatism Association & Swedish Research Council					

Source	Neurological	Psychological	Stress Relateed	Adverse effects	Immunity
Manzaneque Vera Maldonado Carranque et al, 2004					Immune response improved Neutrophils, leukocytes, eosinophils, monocytes↓
McGibbon Krebs Parker Scarborough Wayne & Wolf, 2005 NIH					
McGibbon Krebs Wolf Wayne Scarborough & Parker, 2004 NIH					
Motivala Sollers Thayer & Irwin, 2006 Grants MH55253, AG18367 and T32-MH19925 and the Cousins Center for Psychoneuroim munology					

Source	Neurological	Psychological	Stress Relateed	Adverse effects	Immunity
Mustain Katula Gill Roscoe Lang & Murphy, 2004		self-esteem ↑			
Mustain Katula Zhao, 2006 Susan Stout Exercise Science Research Fund, and Sally Schindel Cone Women's and Gender Studies Research Fund at the University of North Carolina at Greenboro. Am Cancer Society assisted with recruitment					

Source	Neurological	Psychological	Stress Relateed	Adverse effects	Immunity
Nowalk Prendergast Bayles D'Amico & Colvin, 2001 Scaife Family Foundatin, Pittsburgh, Penn and Jewish Foundation					
Orr Tsang Lam Comino Singh, 2006 Douglas Hanly Moir Pathology and Deiser Sports health donated K400 Electronics					
Pippa Manzoli Corti Congedo Romanazzi & Parruti, 2007 No mention of funding					
Sattin Easley Wolf Chen & Kutner, 2005					

Source	Neurological	Psychological	Stress Relateed	Adverse effects	Immunity
Shen Williams Chyu Paige Stephens Chauncey Prabhu Ferris & Yeh, 2007 Helen Jones Foundation and Carillon Education and Research Center, Lubbock TX					
Song Lee Lam & Bae, 2003 Korea Research Foundation Grant					
Song Lee Lam & Bae, 2007, Korea Research Foundation					

Source	Neurological	Psychological	Stress Relateed	Adverse effects	Immunity
Stenlund Lindstrom Granlund & Burell, 2005		fear of falling n/c			
Thomas Hong Tomlinson Lau Lam Sanderson Woot, 2005 University Grants Council, University of Hong Kong					
Tsai Wang Chan Lin Wang Tomlinson Hsieh Yang Liu, 2003		State and Trait Anxiety↓			
Tsang H.W. Fung & Chan, 2006, Department of Rehabilitation Sciences, Hong Kong Polytechnic University		depression↓			

Source	Neurological	Psychological	Stress Relateed	Adverse effects	Immunity
Tsang HW Mok Yeung & Chan, 2003, Area of Strategic Development Grant, Dept of Rehabilitation Services, Hong Kong Polytechnic University		Depression improved, but not significant			
Tsang T. Orr Lam Comino & Singh, 2007 School of Exercise and Sport Science, Universityu of Sidney and blood tests by Douglass Hanly Moir Pathology					

Source	Neurological	Psychological	Stress Relateed	Adverse effects	Immunity
Voukelatos Cumming Lord Rissel, 2007 New South Wales Health Department, Helath Promotion Research Demonstration Grant Scheme					
Wang Roubenoff Lau Kalish Schmid Tighiouart Rones Hibberd, 2005 General Clinical Research Center and Tufts-New England Medical Center		depression ↓			C-reactive protein and ESR n/c

Source	Neurological	Psychological	Stress Relateed	Adverse effects	Immunity
Wennenberg Gunnarsson Ahlstrom, 2004 Claes Groschinsky Memorial fund, the Centre for Rehabilitation Research in Orebro, the Country of Orebro and the Department of Caring Sciences, University of Orebro, Orebro, Sweden		Depression n/c			
Winsmann, 2006 dissertation		Dissociative experiences, anxiety and depression improved, not ss			

Source	Neurological	Psychological	Stress Relateed	Adverse effects	Immunity
Wolf O"Grady Easley Guo Kressig & Kutner, 2006, NIH NIA & coupons from Kroger Corporation and CVS Pharmacies					
Wolf Sattin Kutner O"Grady Greenspan & Gregor, 2003, NIH NIA & coupons from Kroger Corporation and CVS Pharmacies					
Wolf, Barnhart Ellison Coogler & Gorak, 1997, NIA NIH, US Public Health Service					
Wolf, Barnhart Kutner McNeelly Coogler & Xu, 2003 from 1990's, NIH grant from NIA		depression			

Source	Neurological	Psychological	Stress Relateed	Adverse effects	Immunity
Woo Hong Lau & Lynn, 2007, Research Grants Council of Hong Kong					
Yang, Verkuilen Rosengren, Mariani, Reed, Grubisich & Woods, 2007 No reference to funding					Antibody level following flu immunization at 20 weeks↑
Yeh Wood Lorell Stevenson Eisenberg Wayne et al, 2005, Bernard Osher Foundation and Beth Israel Deaconess Medical Center Clinical Research Center Grant from NIH and WT Young Foundation			Serim B-type natriuretic peptide ↑ Resting catecholamine levels n/c	none	

Source	Neurological	Psychological	Stress Relateed	Adverse effects	Immunity
Young Appel					
Jee Miller, 1999					
HL 02642 and					
RR 00722 to					
Johns Hopkins					
Outpatient					
General Clinical					
Resource					
Center					
Zhang Ishikawa					
Takata					
Yamazaki					
Morita & Ohta,					
2006 Health					
and Labor					
Science					
Research Grant					
for Research					
on Dimentia					
and Fracture					
from Ministry of Health, Labor					
and Welfare,					
Japan					
Jupan					