

A comparision on the effects of different type yoga to body composition, sleep quality and perceived health status of middle-aged and old women

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ABSTRACT

Middle-aged and old women do not have exercise habit and experience physical changes that cause problems of health in Taiwan. This study intends to investigate the effect of different type yoga exercise, on body composition, sleep quality and perceived health of middle-aged and old women. Ninety-one women, whose age is 45-65 years old, are divided into power fitness with 31 members, hatha group with 30 members and none-yoga group with 30 members. Both yoga group members take yoga exercise one and half hour a day, two days a week for twelve weeks. None-yoga group members do not take yoga exercise. After twelve -week yoga, all participants are measured for the following items: body fat percentage, body mass index (BMI), waist-hip ratio, bone density, and fill out the questionnaires of the quality of sleep and perceived health. The data were analyzed by frequency, MANOVA and the results were as followed: 1. Both yoga groups confirm that the posttest decreased than the pretest on body composition. of yoga participants have significantly decreased and their bone density, sleep quality, and perceived health status significantly improved ($p < .05$), but their body fat percentage and waist-hip ratio have no significant difference. Therefore, twelve weeks of yoga for middle-aged and old women can improve their body mass, bone density, sleep quality, and perceived health status, but not their body fat percentage, hip circumference, waist circumference, waist-hip ratio.

Keywords : yoga、middle-aged and old women、body composition、sleep quality、perceived health status.

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REFERENCES

- 一. 中文部分 內政部(2010)。內政部統計通報。線上檢索日期:2010年5月13日。網址: <http://www.moi.gov.tw/stat/index.asp> 王瑞霞(1994)。老年人體能活動參與及其相關因素的探討。高雄醫學科學雜誌, 12(6), 348-358。安奇(2005)。婦科門診個別諮詢介入對更年期婦女之更年期症狀困擾、健康行為及自覺健康狀況成效之探討, 國立台北護理學院護理研究所未出版之碩士論文, 台北市。行政院衛生署國民健康局網站(2004)。摘自 <http://www.bhp.doh.gov.tw>。江書杰(2008)。瑜珈參與者的自覺健康狀況、社會支持與流暢體驗之研究。大葉大學未出版碩士論文, 彰化縣。朱嘉華、方進隆(1999)。運動與睡眠品質之探討。中華體育, 11(2), 98-108。吳方瑜(1998)。老人心理、社會層面的改變。引於王世俊等著, 老年護理學, pp. 45-57。台北:匯華。李水碧、李志雄(2004)。阻力運動與骨質疏鬆症。中華體育, 18(4), 48-57。李宇宙(2000)。身心疾病之睡眠障礙。台灣醫學, 4(6), 673-680。吳依凡(2004)。醫療資源可近性對個人醫療利用的影響-台灣地區的實證研究。國立中央大學未出版碩士論文, 桃園市。宋敏如(2006)。瑜珈運動對更年期婦女疲憊、健康體能與更年期症狀困擾成效之探討。國立台北護理學院護理研究所碩士論文, 臺北市。呂碧琴(1997)。瑜珈體位法對大學女生健康適能的影響效果探討。臺大體育學報, 1, 233-254。李碧霞(2001)。中老年人運動階段、身體活動量及其影響因素之研究—以臺北市中山區居民為例, 國立台灣師範大學衛生教育學系未出版之博士論文, 臺北市。巫靜怡、林麗娟(2009)。瑜珈對於高血壓之效用探討。中華體育季刊, 23(1), 21-29。李敏華(2007)。規律羽球運動40-50歲男子身體適能及骨質密度之影響。國立體育大學(桃園)碩士論文, 桃園縣。李逸、王秀紅(2000)。中年婦女之停經經驗與自我照顧行為。護理研究, 8(1), 71-83。李蘭(1991)。健康行為的概念與研究。中華衛誌, 10(5), 199-211。邱文彬(2001)。社會支持因應效果的回顧與展望。國家科學委員會研究彙刊:人文及社會科學, 11(4), 311-330。林正常(2000)。活力指標:最大攝氧量。運動生理週訊, 39。2009年1月15日取自 <http://epsport.ccu.edu.tw/epsport/week/search.asp> 林貞岑(2003)。瑜珈-全球健康新風潮。康健雜誌, 60, 105-110。卓俊辰(1998)。工作場所團體性健身運動者運動行為相關因素研究—以國立臺灣師大為例。體育學報, 25, 129-138。林益安(2008)。五週強力適能瑜珈課程對血脂質之影響。國立體育大學未出版碩士論文, 桃園縣。週翌、何立民(1996)。神奇的褪黑激素。台北:方智。林嘉玲(2000)。自費安養機構老人睡眠品質及其相關因素之探討。國立體育大學未出版碩士論文, 台北市。林興中(1994)。骨質疏鬆症之最近進展。台灣醫界, 37(3), 209-212。邱顯峰(2002)。靈性瑜珈。臺北:喜悅之路。洪睿聲、陳坤檸(2003)。瑜珈之生理心理功能。大專體育, 69, 147-155。柯瓊芳(1995)。歐洲各國老人自評健康狀況的比較研究。公共衛生, 22(2), 87-98。凌千惠、傅光翊、黃荷瑄、姚慧萍、林宜慧、葉志嶸(2007)。老年族群之憂鬱程度、社會支持程度與醫療服務使用之相關性。18(2), 201-215。徐長庚、曾國華(1999)。失眠藥物治療的探討。中化藥訊, 41, 1-3。陸文灝(2001)。健康魔法書。台北:民視文化。陳玉芬(2005)。更年期瑜珈。臺北:文經社。陳玉蘭、張家豪(2010)。瑜珈運動的效益與傷害探討。中華體育季刊, 24卷2期。頁次38-47。張光遠, 陳學修, 謝慶良(2003)。潮熱的病因與治療。當代醫學, 30(10), 842-846。許志成、徐瑣淳、張祐剛、蘇文川、石曜堂(2003)。疾病與社會:台灣歷經SARS風暴之醫學人文反省學術研討會。台北:台灣。張玆、週松男、陳芬苓、張菊惠(1995)。一般經期與更年期自述症狀的研究。中華衛誌, 14(2), 191-200。陳祈維(2005)。運動介入對更年期婦女生理症狀及睡眠品質之影響。國立台灣師範大學未出版碩士論文, 臺北市。陳坤檸(1993)。年齡與骨骼肌特性/肌力的變化。中華體育, 7(3), 132-138。陳亭蘭(2005)。瑜珈運動對氣喘學童健康體適能改善之成效探討。輔仁大學未出版碩士論文, 臺北市。陳惠敏、王瑞霞(1999)。南部某護專三年級學生生活壓力事件、壓力症狀和社會支持系統。護理雜誌, 46(6), 46。陳冠丹(2005)。健康瑜珈、漂亮瑜珈。台北:林郁工作室。陳桂敏、洪瑄曼(2006)。探索瑜珈的身心治療效益, 長期照護雜誌。10(2), 190-202。莊淑芹(1997)。怎樣睡最健康。台北:紅螞蟻。張惠芝(2004)。探討瑜珈訓練對原發性經痛患者體內同半胱胺酸及一氧化氮濃度之影響。臺北護理學院未出版碩士論文, 臺北市。陳揚燕(1996)。大學新生睡眠品質與飲食因子之關係探討。國防醫學院公共衛生研究所公共衛生營養組碩士論文, 臺北市。曹麗英(1998)。台灣婦女更年期經驗之探討—處於健康多變化的時期。護理研究, 6(6), 448-460。曹麗英、蘇美禎、邱小鳳(2002)。中西醫求醫婦女更年期症狀困擾情形之探討。長庚科技學刊, 1, 91-102。黃文俊(1998)。步行運動與兒童健康體適能。中華體育, 13(2), 108-113。曾文俊(2008)。六週不同型式跳繩對大學生無氧動力、心肺耐力與身體組成之影響。國立屏東教育大學碩士論文, 屏東市。曾齡慧(2002)。社區老人睡眠品

質、失眠類型與求助方式之探討~以台北市基督長老教會松年大學為例。國立台灣師範大學衛生教育研究所碩士論文，臺北市。彭紫絹(2005)。運動訓練對停經後婦女骨質密度與血脂肪之影響。竹師體育，3，48-53。黃?如、鄒碧鶴(2005)。Power Yoga 訓練對大學生背痛影響之探討。嘉南學報，31，420-432。詹建富(2007, June 17)。長期練瑜伽「硬拗」腰椎壞了了。聯合報(台北):A3版。雷啟文(2003)。中年婦女身體活動與睡眠品質之相關研究。國立臺北護理學院未出版碩士論文，臺北市。楊舜璇(2002)。停經後婦女規律運動之經驗。臺北醫學大學未出版碩士論文，臺北市。鄒碧鶴、黃?如(2005)。比較適能瑜珈與體重控制運動處方介入對大學生健康體適能的影響。嘉南學報，31，405-419。劉一民(1991)。運動哲學研究-遊戲、運動與人生。臺北市:師大書苑。鄭青青(2004)。探討都會型社區獨居老人接受社區服務對其自覺健康狀況與生活品質。國立台北護理學院護理研究所未出版之碩士論文，臺北市。鄭鴻英(2005)。瑜珈就是這麼簡單。臺北:元氣齋。潘芙蓉(2007)。皮拉提斯運動計畫對促進社區肥胖中老年人身心健康之成效探討。輔英科技大學未出版碩士論文，高雄縣。劉美珠(1990)。瑜珈-身心合一的科學。中華體育，13，pp.40-50。盧瑞芬、曾旭民、蔡益堅(2003)。國人生活品質評量

():SF-36台灣版的常模與效度檢測。台灣公共衛生雜誌，22(6)，512-518。韓令愈(2005)。規律運動訓練對停經後婦女心肺耐力、更年期困擾症狀、生活品質、及骨質密度影響之探討。臺北醫學大學未出版碩士論文，臺北市。謝文順(2001)。身體活動與睡眠品質的關係。中華體育，14(4)，97-106。謝維玲(2005)。瑜珈學習百科。臺北:邦城。鍾寶玲(2001)。老年糖尿病患健康促進生活型態集相關因素之探討。高雄醫學院護理學研究所未出版碩士論文，高雄市。蕭雅馨(2005)。十二週強力適能瑜珈訓練對靜態工作女性之生理及健康體適能的影響。大葉大學未出版碩士論文，彰化縣。羅明葵(2000)。談終身運動的養成，大專體育，51，78-82。嚴莞華(2002)。圖解瑜珈自然健康法。臺北:遠流出版社。蘭奕譯(1998)。樂在好睡眠。台北:精美。

二、英文部分 American Heart Association (n.d.). (2003). Heart and Stroke Statistical Update. Dallas, Texas: American Heart Association. Retrieved November 8, 2003, from <http://www.americanheart.org/presenter.jhtml>. American College of Sports Medicine. (2000). ACSM ' s guidelines for exercise testing and prescription(6th Ed.). Philadelphia: LippincottWilliams & Wilkins.

Asplund, R. (1996). Daytime sleepiness and napping amongst the elderly in relation to somatic health and medical treatment. *Journal of International Medicine*, 239, 261-267.

Babkoff, H., Caspy, T., & Mikulinecer, M. (1991). Subjective sleepiness rating: The effects of sleep deprivation, circadian rhythmicity and cognitive performance. *Sleep*, 14(6), 534-539.

Baron R. (1977). Importance of the intermediate phases between resorption and formation in the measurement and understanding of the bone remodeling sequence. In: Meunier PJ, ed. *Bone histomorphometry: proceedings of the second international workshop*. Toulouse: Societe de la Nouvelle Imprimerie Fournie. 179-183.

Bernhard, L. A., & Sheppard, L. (1993). Health, symptoms, self-care, and dyadic adjustment in menopausal women. *Journal of Obstetric, Gynecologic, and Neonatal Nursing*, 22(5), 456-461.

Boredor, C. E., Burrhus, K. A., Svanevik, L. S., & Wilmore, J. H. (1992). The effects of either high-intensity resistance or endurance training on resting metabolic rate. *American Journal of Clinical Nutrition*, 55, 802-810.

Borg, V., & Kristensen, T. S. (2000). Social class and self-rated health: Can the gradient be explained by differences in life style or work environment? *Social Science & Medicine*, 51(7), 1019-1030.

Brehm, B. A., & Iannotta, J. G. (1998). Women and physical active lifestyle enhance health and wellbeing. *Journal of Health Education*, 29, 89-92.

Borg, V., & Kristensen, T. S. (2000). Social class and self-rated health: Can the gradient be explained by differences in life style or work environment? *Social Science & Medicine*, 51(7), 1019-1030.

Buyse, D. J., Reynolds III, C. F., Monk, T. H., Berman, S. R., & Kupfer, D. J. (1989). The Pittsburgh Sleep Quality Index: A new instrument for psychiatric practice and research. *Psychiatry Research*, 28, 193-213.

Buyse, D. J., Reynolds III, C. F., Monk, T. H., Hoch, C. C., Yeager, A. L., & Kupfer, D. J. (1991). Quantification of subjective sleep quality in healthy elderly men and women using the Pittsburgh Sleep Quality Index (PSQI). *Sleep*, 14(4), 331-338.

Chesnut, C. H. (1993). Bone mass and exercise. *The American Journal of Medicine*, 95(suppl.5A), 34s-36s.

Cullinen, K. A., & Caldwell, M. (1998). Weight training increase fat-free mass and strength in untrained young women. *Journal of the American Dietetic Association*, 98(4), 414-418.

Dempster, D. W., & Lindsty, R. (1993). Pathogenesis of osteoporosis. *The Lancet*, 341: March 27, 797-801.

Diez Curiel, M., Garcia, J. J., Carrasco, J. L., Honorato, J., Perez Cano, R., Rapado, A., et al. (2001). Prevalence of osteoporosis assessed by densitometry in the Spanish female population. *Medicina clinica*, 116(3), 86-88.

Emmey Ripoll & Dawn Mahowald. (2002). Hatha Yoga therapy management of urologic disorders. *World journal of urology*, 20, 306-309.

Gillis, A. J. (1993). Determinants of a health-promoting lifestyle: an integrative review. *Journal of Advanced Nursing*, 18, 345-353.

Goldberg, B. (1997). Alternative Medicine: The Definitive Guide. Future Medicine Publishing: California, U.S.A. p.p.469-480.

Graves, B. S., Quinn, J. V., O'Kroy, J. A., & Torok, D. J. (2005). Influence of pilates-based mat exercise on chronic lower back pain. *Medicine and Science in Sports and Exercise*, 37, S27.

Greendale, G. A. & Sowers, M. F. (1997). The menopause transition. *Endocrinology and Metabolism Clinics of North America*, 26(2), 261-277.

Gutin, B., Yin, Z., Humphries, M. C., & Barbeau, P. (2005). Relations of moderate and vigorous physical activity to fitness and fatness in adolescents. *The American Journal of Clinical Nutrition*, 81, 746-750.

Hamdy, R. C., Krishnaswamy, G., Cancellaro, V., Whalen, K. & Harvill, L. (1993). Change in bone mineral content and density after stroke. *American Journal of Physical Medicine and Rehabilitation*, 72(4), 188-191.

Hammar, M., Berg, G., & Lindgren, R. (1990). Does physical exercise influence the frequency of postmenopausal hot flushes? *Acta Obstetricia Gynecologica Scandinavica*, 69, 409-412.

Harris, D. V., & Robinson, W. J. (1986). The effect of skill level on EMG activity during internal and external imagery. *Journal of Sport Psychology*, 8, 105-111.

Harinath, K., Malhotra, A. S., Pal, K., Prasad, R., Kumar, R., Kain, T. C., Rai, L., & Sawhney, R. C. (2004). Effects of Hatha yoga and Omkar Meditation on cardiorespiratory performance, psychologic profile, and melatonin secretion. *Journal of alternative and complementary medicine*, 10(20), 261-268.

Hirota, T., Nara, M., Ohguri, M., Manago, E. & Hirota, K. (1992). Effect of diet and lifestyle on bone mass in Asian young women. *American Journal of Clinical Nutrition*, 55(6), 1168-1173.

Jeng, C., Yang, S. H., Chang, P. C., & Tsao, L. I. (2004). The experience of regular exercise for menopausal women: perceiving continuous power. *Journal of Clinical Nursing*, 13, 1-19.

Kolasinski, S. L., Garfinkel, M., Tsai, A. G., Matz, W., Van, D. A., & Schumacher, H. R. (2005). Iyengar yoga for treating symptoms of osteoarthritis of the knees: a pilot study. *Journal of Alternative and Complementary Medicine*, 11(4),

689-693. Kreitzer, M. J., Gross, C. R., Ye, X., Russas, V., & Treesak, C. (2005). Longitudinal impact of mindfulness meditation on illness burden in solid-organ transplant recipients. *Progress in transplantation*, 15(2), 166-172. Kritz-Silverstein, D. & Barrett-Connor, E., (1993). Early menopause, number of reproductive years, and bone mineral density in postmenopausal women. *American Journal of Public Health*, 83(7), 983-988. Leinonen, R., Heikkinen, E., & Jylha, M. (2002). Changes in health, functional performance and activity predict changes in self-rated health: A 10-year follow-up study in older people. *Archives of Gerontology and Geriatrics*, 35, 79-92. Michalsen, A., Grossman, P., Acil, A., Langhorst, J., Ludtke, R., Esch T., Stefano, G. B., Dobos, G. J. (2005). Rapid stress reduction and anxiolysis among distressed women as a consequence of a three-month intensive yoga program. *Medical Science Monitor: International Medical Journal of Experimental and Clinical Research*, 11(12), CR555-561. Monro, R., Nagarathna R., & Nagendra, H. R. (1995). New Delhi, India: Yoga for Common Ailments Bookwise India. Schmidt, T., Wijga, A., Von Zur Muhlen, A., Brabant, G., & Wagner, T. O. Morgan, K., Dallosso, H., Ebrahim, S., Arie, T., & Featen, D. H. (1988). Characteristics of subjective insomnia in the elderly living at home. *Age Aging*, 17, 1-7. Moseley, A., Piller, N., & Carati, C. (2002). Combined Opto-Electronic Perometry to Measure Objectively the Effectiveness of a New Treatment Intervention for Chronic Secondary Leg Lymphedema, *Lymphology*, 35, 136-143. O'Connor, P. J., & Youngstedt, S. D. (1995). Influence of exercise on human sleep. *Exercise and Sport Science Reviews*, 23, 105-134. Oldenhove, A., Jaszmann, L. J. B., Haspels, A. A., & Everaerd, W. (1993). Impact of climacteric on well-being. *American Journal of Obstetric Gynecology*, 168(3), 772-780. Pender, N. J. (1987). McCaffrey, R., Ruknui P., Hatthakit, U., & Kasetsomboon, P. (2005). The effects of yoga on hypertensive persons in Thailand. *Holistic nursing practice*, 19(4), 173-180. Rajput, V., & Bromley, S. M. (1999). Chronic insomnia: A practical review. *American Family Physician*, 60(5), 1431-8. Ripoll, E. & Mahowald, D. (2002). Hatha Yoga therapy management of urologic disorders. *World Journal of Urology*, 20, 306-309. Scharb-DeHaan, M., & Brucker, M. C. (1991). The perimenopausal period: Implications for nurse-midwifery practice. *Journal of Nurse-Midwifery*, 36(1), 9-16. Schmidt, T., Wijga, A., Von Zur Muhlen, A., Brabant, G., & Wagner, T. O. (1997). Changes in cardiovascular risk factors and hormones during a comprehensive residential three month Kriya yoga training and vegetarian nutrition. *Acta Physiologica Scandinavica*, 640, 158-162. Shaw, C. K. (1993). An epidemiologic study of osteoporosis in Taiwan. *Annals of Epidemiology*, 3(3), 264-271. Sternfeld, B., Cauley, J., Harlow, S., Liu, G., & Lee, M. (2000). Assessment of physical activity with a single global question in a large, multiethnic sample of midlife women. *American Journal of Epidemiology*, 152(7), 678-687. Stevens, J., Ssuchindran, C., Ring, K., Baggett, C. D., Jobe, J. B., Story, M., Thompson, J., Going, S. B., & Caballero, B. (2004). Physical activity as a predictor of body composition in American Indian children. *Obesity Research*, 12(12), 1974-1980. Tasi P. S., Wang S. Y., Wang M. Y., Su, C. T., Yang, T. T., Huang, C. J., & Fang, S. C. (2005). Psychometric evaluation of Chinese version of the Pittsburgh Sleep Quality Index (PSQI) in primary insomnia and control subjects. *Quality of Life Research*, 14, 1943-1952. Vitiello, M. V., Prinz, P. N., & Schwartz, R. S. (1985). Slow wave sleep but not overall sleep quality of healthy older men and women is improved by increased aerobic fitness. *Sleep Research*. Williams, B., Poulter, N. R., Brown, M. J., Davis, M., McInnes, G. T., & Potter, J. F., et al. (2004). Guidelines for management of hypertension: report of the fourth working party of the British Hypertension Society, 2004-BHS IV. *Journal of Human Hypertension*, 18(3), 139-185. World Health Organization (2000, May 8-10) The 2000 Victoria Declaration of the Advisory Board of the First International Conference on Women, Heart Disease, and Stroke. Victoria, Canada. World Health Organization (2003). Prevention and management of osteoporosis. Report of a WHO Study Group. *World Health Organization Technical Report Series*, 921, 1-164. Zammit, G. K., Weiner, J., Damato, N., Sillup, G. P., & McMillan, C. A. (1999). Quality of life in people with insomnia. *Sleep*, 22(2), 379-385.