

## PEER REVIEW HISTORY

BMJ Open publishes all reviews undertaken for accepted manuscripts. Reviewers are asked to complete a checklist review form (<http://bmjopen.bmj.com/site/about/resources/checklist.pdf>) and are provided with free text boxes to elaborate on their assessment. These free text comments are reproduced below.

### ARTICLE DETAILS

<b>TITLE (PROVISIONAL)</b>	Does Tai Chi improve psychological well-being and quality of life in patients with cardiovascular disease and/or cardiovascular risk factors? a systematic review protocol
<b>AUTHORS</b>	Yang, Guo-Yan; Li, Yuan; Cao, Hui; Klupp, Nerida; Liu, Jianping; Bensoussan, Alan; Kiat, Hosen; Chang, Dennis

### VERSION 1 - REVIEW

<b>REVIEWER</b>	Carl Lavie Ochsner Health System USA
<b>REVIEW RETURNED</b>	28-Nov-2016

<b>GENERAL COMMENTS</b>	This is a nice protocol. A very recent State of the Art paper on psychological stress and CVD could be included (Lavie CJ et al Canadian Journal of Cardiology 2016;32:S365-S373).
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<b>REVIEWER</b>	Lisa A Conboy New England School of Acupuncture at MCPHS
<b>REVIEW RETURNED</b>	20-Jan-2017

<b>GENERAL COMMENTS</b>	Nice job.
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<b>REVIEWER</b>	Ching Lan Department of Physical Medicine and Rehabilitation National Taiwan University Hospital Taipei Taiwan
<b>REVIEW RETURNED</b>	27-Apr-2017

<b>GENERAL COMMENTS</b>	<ol style="list-style-type: none"><li>1. The proposal intends to perform a meta-analysis for the effect of Tai Chi training for psychological wellbeing and quality of life in patients with cardiovascular disease and/or cardiovascular risk factors. The study proposal is well designed and I look forward to see the result in the future.</li><li>2. Why this proposal only include subjects &gt; 40 y/o</li><li>3. "Dyslipidemia" is better than the term "hyperlipidemia"</li><li>4. Why this proposal do not include "heart failure"? Patients with heart failure are more prone to depressive disorder. I suggest to put them in the search.</li></ol>
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## VERSION 1 – AUTHOR RESPONSE

Reviewer #1:

Comments: This is a nice protocol. A very recent State of the Art paper on psychological stress and CVD could be included (Lavie CJ et al Canadian Journal of Cardiology 2016; 32: S365-S373).

Response: We thank you for your comment and for sharing with us this excellent publication, which is relevant to our manuscript. We have included this reference in the Introduction section (Reference No 9 on pages 4 and 5).

Reviewer #2:

Comments: Nice job.

Response: We thank you for your positive comment.

Reviewer #3:

Comments (1): The proposal intends to perform a meta-analysis for the effect of Tai Chi training for psychological wellbeing and quality of life in patients with cardiovascular disease and/or cardiovascular risk factors. The study proposal is well designed and I look forward to see the result in the future.

Response: We thank you for your comment.

Comments (2): Why this proposal only include subjects > 40 y/o

Response: We only include subjects > 40 years old because:

a) People aged > 40 years have a higher prevalence of CVD and cardiovascular risk factors<sup>1-2</sup>.

Coronary heart disease (CHD) makes up more than half of all CVD deaths in men and women under 75 years of age, with a lifetime risk of developing CHD after age 40 years, of 49% for men and 32% for women<sup>2</sup>.

b) People aged 40 to 65 years are often still in workforce, and therefore they experience a higher level of work-related stress and other sources of stress such as marital stress, who had a higher risk of the development of CVD (esp. CHD)<sup>3-5</sup>.

Reference:

1. Yazdanyar A, Newman AB. The burden of cardiovascular disease in the elderly: morbidity, mortality, and costs. *Clin Geriatr Med* 2009; 25 (4): 563-577.
2. Go AS, Mozaffarian D, Roger VL, et al. American Heart Association Statistics Committee and Stroke Statistics Subcommittee. Heart disease and stroke statistics-2013 update: a report from the American Heart Association. *Circulation* 2013; 127: e6-e245.
3. Sultan-Taieb H, Chastang JF, Mansouri M, et al. The annual costs of cardiovascular diseases and mental disorders attributable to job strain in France. *BMC Public Health* 2013; 13: 748.
4. Karasek R, Collins S, Clays E, et al. Description of a large-scale study design to assess work-stress-disease associations for cardiovascular disease. *Int J Occup Med Environ Health* 2010; 23 (3): 293-312.
5. Kivimaki M, Virtanen M, Elovainio M, et al. Work stress in the etiology of coronary heart disease- a meta-analysis. *Scand J Work Environ Health* 2006; 32 (6): 431-442.

Comments (3): "Dyslipidemia" is better than the term "hyperlipidemia"

Response: We have replaced the term "hyperlipidemia" with "dyslipidemia" throughout the text.

(Pages 4 – 8)

Comments (4): Why this proposal do not include "heart failure"? Patients with heart failure are more prone to depressive disorder. I suggest to put them in the search.

Response: Thanks for your constructive suggestion. We do intend to include 'heart failure' in this review. To clarify, we have added 'heart failure' in our inclusion criteria and search strategies in the protocol. (See Line 2 of the last paragraph under 'Type of participants' on Page 6, Line 4 of the last paragraph under 'Search Strategies' on Page 7, and Table 1-Search strategies on Page 8).