
LETTER TO EDITOR

Physical Activity is A Priority in Public Health

Ahmad Taufik Jamil

Department of Public Health Medicine, Faculty of Medicine, Universiti Teknologi MARA Malaysia (UiTM).

**For reprint and all correspondence: Assoc. Prof. Dr. Ahmad Taufik Bin Jamil, Department of Public Health Medicine, Faculty of Medicine, Universiti Teknologi MARA Malaysia (UiTM), Sg. Buloh Campus, 57000 Sg Buloh Selangor.*

Email: taufik70@uitm.edu.my

Dear Editor,

Physical activity is important for our health. Physical activity is well known and proven to prevent non-communicable diseases. In a report by WHO, it is the 4th leading risk factor of mortality globally.¹ A review showed that, physical activity has positive impact on 26 diseases.² The important of physical activity as important risk factor of chronic diseases is undeniable. The evidence of the impact of physical activity on health outcome is overwhelming. Why is this not a common knowledge among healthcare professional and why it is hard to translate it into action?

Physical activity is proven to reduce morbidity and mortality. Study has shown, it reduces 30% risk of all-cause of mortality. It also reduces risk of getting chronic diseases such as heart disease, hypertension, diabetes type 2, depression, dementia, breast cancer, colon cancer, osteoporosis and osteoarthritis by 40%, 52%, 50%, 30%, 30%, 25%, 45%, 40% and 50% respectively.³ The more exercise is done, the more reduction in mortality risk. This is called dose-response relationship. It clearly has a lot of beneficial effect on non-communicable diseases.

Physical activity is not only known to prevent and reduce risk of getting non-communicable disease (NCD). It is also proven to treat non-communicable disease. It is clearly stated in Malaysian clinical practice guideline, physical activity is a treatment for obesity⁴, hypertension⁵, diabetes type 2⁶, coronary artery disease⁷ and dyslipidemia.⁸ Improvement is seen on chronic disease by being physically active. It reduces blood pressure by 5 - 17 mm Hg for systolic blood pressure and 2 - 10 mm Hg for diastolic blood pressure.⁹ Improvement of glucose profile by reducing 0.5 - 0.73% of HbA1C level.¹⁰ The effect is as good as metformin therapy.² Lipid profile is improved by increasing HDL level for 2.2 mg/dL.¹¹

Looking from health economic perspective, physical activity is proven to save a lot of healthcare cost. Globally, physical inactivity cost

USD53.8 billion worldwide (direct cost) & USD13.7 billion (indirect cost). Total cost saving is USD67.5 billion. Most of the cost (USD31.2 billion) is borne by the public sector. For Malaysia, direct cost is USD284 million and indirect cost is USD119 million. The total amount that could be saved if all the Malaysian population are physically active is USD403 million, which is about RM1.3 billion. However, this study only includes 4 diseases as outcome of physical inactivity; breast cancer, colon cancer, stroke and coronary heart disease.¹² More cost saving is expected if all diseases related to physical activity is included in the study.

Smoking is an established risk factor for non-communicable diseases. Heart disease and lung cancer is the known diseases related to smoking. On the other hand, physical inactivity is also known risk factor of non-communicable diseases. Wen & Wu¹³ compared both by looking at prevalence, hazard ratio, population attributable fraction and global death per year. Apparently, both risk factors (smoking & physical inactivity) have similar and comparable effect on health and diseases.

Malaysia is not doing well on prevalence of physical inactivity. Over years, our level of physical inactivity shows reducing trend, from 88.4% in 1996¹⁴ to 33.5% in 2015.¹⁵ However, our level of physical inactivity is higher than the global prevalence of physical inactivity. Global physical inactivity level is 27.5%.¹⁶ Malaysia is rank at number 31 of being physically inactive out of 168 countries.¹⁶ More work needs to be done, to increase the physical activity level in Malaysia.

World Health Organisation (WHO) has published Global recommendation of physical activity in 2010.¹⁷ However, it is not clear how member country should follow and implement the guideline. It is only 8 years later, WHO published the Global action plan on physical activity (GAPPA) 2018-2030¹⁸ in 2018. The document clearly state how member country could react and plan their own strategic plan, to increase physical activity level in their own country. In Malaysia, we have our own guideline on physical activity¹⁹, published in 2017.

In 2018, we launch our strategic plan; National Strategic Plan for Active Living (NASPAL) 2017 - 2025²⁰, to increase level of physical activity, through involvement of many stake holders.

CONCLUSION

Only in the last decade, physical activity is seen as important for public health and action has to be taken to increase physical activity level in the community. It is still not too late for the government, professional bodies, NGOs and the community to promote and advocate physical activity as a mean to reduce non-communicable disease in Malaysia. We hope, by having NASPAL, it will intensify our effort to reduce physical inactivity level and further reduce prevalence of NCD.

DECLARATION

I declare that I have no conflicts of interest.

REFERENCES

1. Global health risks: mortality and burden of disease attributable to selected major risks. Geneva, World Health Organization, 2009.
2. Pedersen BK, Saltin B, Exercise as medicine – evidence for prescribing exercise as therapy in 26 different chronic disease. *Scand. J of Med. & sci. in Sports* 2015; 25(suppl. 3): 1-72.
3. Academy of Royal Medical Colleges. Exercise—the miracle cure. 2015 <http://www.aomrc.org.uk/publications/reports-guidance/exercise-the-miracle-cure-0215/>.
4. Ministry of Health Malaysia. Clinical Practice Guidelines: Management of Obesity. Kuala Lumpur: Ministry of Health, Malaysia, 2004.
5. Ministry of Health Malaysia. Clinical practice guideline management of hypertension. 5th ed. Ministry of Health Malaysia; 2018. pp. 40.
6. Ministry of Health Malaysia. Clinical practice guidelines. Management of type 2 diabetes mellitus. 5th ed. Ministry of Health Malaysia; 2015. Pp. 15.
7. Ministry of Health Malaysia. Clinical practice guideline of Stable Coronary Artery Disease. 2nd ed. Kuala Lumpur: Ministry of Health Malaysia; 2018. pp. 63–67.
8. Ministry of Health Malaysia. Clinical practice guideline of Management of Dyslipidaemia. 2nd ed. Kuala Lumpur: Ministry of Health Malaysia; 2017. pp. 78–79.
9. Pescatello LS, et. al. Physical Activity to Prevent and Treat Hypertension: A Systematic Review, *Med. Sci. Sports Exerc.* 2019; 51(6):1314–1323, DOI: 10.1249/MSS.0000000000001943.
10. 2018 Physical Activity Guidelines Advisory Committee. 2018 Physical Activity Guidelines Advisory Committee Scientific Report. Washington, DC: U.S. Department of Health and Human Services, 2018 (Chapter 10).
11. Igarashi Y, Akazawa N, Maed S. Effects of Aerobic Exercise Alone on Lipids in Healthy East Asians: A Systematic Review and Meta-Analysis, *Journal of Atherosclerosis and Thrombosis.* 2019; 26(5):488-503, <https://doi.org/10.5551/jat.45864>.
12. Ding D, et. al. The economic burden of physical inactivity: a global analysis of major non-communicable diseases. *The Lancet* 2016; 388(10051):1311-24.
13. Wen CP, Wu X. Stressing harms of physical inactivity to promote exercise. *The Lancet* 2012; 380(9838):192-3. doi: 10.1016/S0140-6736(12)60954-4.
14. Poh BK et. al. Physical Activity Pattern and Energy Expenditure of Malaysian Adults: Findings from the Malaysian Adult Nutrition Survey (MANS). *Mal. J. Nutr* 2010; 16(1):13-37.
15. Institute for Public Health. National Health and Morbidity Survey 2015. Kuala Lumpur. Ministry of Health Malaysia 2015 ISBN 978-983-2387-23-7.
16. Guthold R et. al. Worldwide trends in insufficient physical activity from 2001 to 2016: a pooled analysis of 358 population-based surveys with 1.9 million participants. *Lancet Glob Health* 2018; 6:e1077–86. doi:10.1016/S2214-109X(18)30357-7.
17. World Health Organisation (WHO). Global recommendation on Physical Activity for Health, 2010.
18. World Health Organisation (WHO). Global action plan on physical activity 2018-2030: more active people for a healthier world. World Health Organization, Geneva 2018.
19. Ministry of Health Malaysia (MOH). Garis Panduan Aktiviti Fizikal Kementerian Kesihatan Malaysia. MOH 2017.
20. Ministry of Health Malaysia (MOH). National Strategic Plan for Active Living (NASPAL) 2017 – 2025, MOH Malaysia 2018.