

Discuss the recommendations within the World Health Organization physical activity guidelines (2020) highlighting and explaining the modifications made since the 2010 guidelines.

This essay will discuss the World Health Organization (WHO) physical activity guidelines published in 2020. Listing the eight different age groups and looking at the activity guidelines for these groups. There are also key facts and other recommendations that will be discussed further, this will include a look at screen time; strength training for children; activity levels; the WHO response; targets to hit by 2030 and finally highlight the modifications made since the WHO 2010 guidelines.

The WHO have divided their activity guidelines into eight different groups, these are, 'Children under 5'; 'Children and adolescents 5–17-year-old'; 'Adults 18–64-year-old'; 'Adults aged 65 years and above'; 'Pregnant and postpartum woman'; 'People living with chronic conditions'; 'Children and adolescence living with disability' and 'Adults living with disability'. Although more groups have been added since the WHO (2010) guidelines, there could be case for more. There is a big difference between the needs of males and females in relation to physical health (Segar *et al.*, 2002). These activity guidelines include time in the prone position, screen time, aerobic intensity and length, strength training and time being sedentary. The WHO (2020) also states that regular physical activity such as walking, cycling, wheeling, doing sports or active recreation, provide significant benefits for health. Some physical activity is better than doing none. "By becoming more active throughout the day in relatively simple ways, people can easily achieve the recommended activity levels. Overwhelming evidence exists that lifelong exercise is associated with a longer health span, delaying the onset of 40 chronic conditions/diseases" (Ruegsegger & Booth, 2018). Also backs up the WHO (2020) recommendations for avoiding health risks of sedentary behavior. However, there can be many obstacles and barriers for people to overcome, in different socioeconomic groups (Stalsberg, Pedersen, 2018) such as lack of motivation, money, time, energy or fear of injury (Herazo-Beltran *et al.*, 2017). There are many ways we could increase our physical activity without making drastic changes. These could be by walking instead of driving, taking the stairs instead of lifts or escalators. There is also a rise in

smartphone apps to help people be more active, however Romeo et al., (2019) research shows some evidence that the use of smartphone apps can lead to short term increase in physical activity but goes on to say more research is needed. To negate worldwide physical inactivity, the WHO launched their new global action plan on physical activity 2018-2030, this documented four main policy areas containing 20 policy recommendations for all members states for consideration to action (WHO 2020). In 2018 it was agreed to promote physical activity by the World Health Assembly in a bid to reduce global physical inactivity in 2030 by 15%, this would align with the sustainable development goals. To help gauge physical activity in school aged children (13 to 17) WHO collaborated on a questionnaire that was introduced into the global school-based student health survey. This questionnaire was populated to give countries help to measure and assess the behavioral risk factors in 10 key areas within this age group.

As mentioned before the WHO (2020) recommendations have eight different age groups. To be able to discuss the recommendation in more detail we will now focus on the children and adolescents aged 5-17 group. The recommendations for this age group are as follows, “should do at least an average of 60 minutes per day of moderate to vigorous intensity, mostly aerobic, physical activity, across the week. should incorporate vigorous intensity aerobic activities, as well as those that strengthen muscle and bone, at least 3 days a week. should limit the amount of time being sedentary, particularly the amount of recreational screen time” WHO (2020). While these recommendations include different types of training types and intensity, they can be very subjective to individual interpretations, especially with the age group in discussion. While a young person in their late teens could distinguish between moderate and vigorous activity, this could be very hard for a 12-year-old, let alone a child of younger years to self-prescribe. Possibly the introduction of a rate of perceived exertion scale like the Borg scale could benefit. Williams (2017) states that “the symptom of exertion is unique to an individual and can be used as a subjective estimate of work intensity undertaken across a variety of populations”. Including strength training in this age groups weekly activity recommendations will cause debate as this Falk and Dotan (2019) statement would suggest “The approach to strength training in children still suffers from reliance on misguided notions claiming them as being ineffective and more conducive to injuries than in adults. Not only are those notions wrong, but children's response to strength training is actually rather similar to that in adults”. There is plenty of evidence to suggest that strength training carried out in the right environment and overseen by qualified

personnel is beneficial to children of all ages. But poor exercise prescription and/or bad form carrying out strength training could lead to injury. This is backed up by the following “Children have systems that are developing and therefore more exposed to the risk of accidents. One of these components is the skeletal system, because the children's bones are not matured, the ossification processes being in full swing, they are exposed to a large number of accidents and disorders both physical (fractures, vertebral dislocations, osteoporosis) and chemical (decrease in the amount of mineral salts in the composition of each bone)” (Larion and Melenco 2023). But with this in mind we can't ignore all the research and evidence out there that strength training for this age group is still an important part in achieving good health. The WHO (2020) recommendations also state to “limit time being sedentary particularly the amount of recreational screen time”. With the increase in screen time this age group has in school time for educational needs, there is now a bigger importance on limiting the screen time out of school. It is not just the effect of screen time going up that could be impacting sedentary behavior, but also, we need to consider there are other health implications that can be associated with excessive screen time (Muppalla *et al.*, 2023).

The WHO 2020 recommendations are the most recent guidelines published, prior to this the last guidelines were released in the 2010 edition. The major modification is the addition of five new age groups, the only three groups in the 2010 recommendations were 5–17-year-olds, 18–64-year-olds and 65-year-old and above. Having more groups with recommendations will hopefully benefit and encourage more of the population to be active, especially in groups for people living with chronic illness and disabilities. Although there are more groups in the 2020 recommendations, the information in each group is more in-depth with a summary of scientific evidence in the 2010 edition. One of the other recommendations added in 2020 is on screen time. There is no mention of screen time in 2010, this shows the increase in screen time over the decade (Sigman 2012). Sedentary behavior is also highlighted in the new recommendations. Bull *et al.*, (2020) state in their conclusion that the 2020 recommendations “reaffirm the messages that some physical activity is better than none, that more physical activity is better for optimal health outcomes and provide a new recommendation on reducing sedentary behaviors”.

In conclusion the addition of more groups will reach more people, but more detailed and specific recommendations could engage and enable more participation. If people are being active in a

way that they enjoy, then they are more likely to adhere to it, ultimately live longer and be in good health. With the WHO collaborating on the global school-based student health survey questionnaire with other organizations, this shows the importance of creating good health habits at an early age to carry on into adulthood. As has been discussed, screen time also plays a big part in the WHO (2020) recommendations. Although screen time has other health implications, more research is needed in the relationship between screen time and sedentary behavior, especially in the age group looked at in more detail.

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References list

Bull, F. C., Al-Ansari, S. S., Biddle, S., Borodulin, K., Buman, M. P., Cardon, G., ... & Willumsen, J. F. (2020). World Health Organization 2020 guidelines on physical activity and sedentary behaviour. *British journal of sports medicine*, 54(24), 1451-1462.

Falk, B., & Dotan, R. (2019). Strength training in children. *Harefuah*, 158(8), 515-519.

Herazo-Beltran., Y, Pinillos, Y., Vidarte, J., Crissien, E., Suarez, D. & Garcia, R. (2017). Predictors of perceived barriers to physical activity in the general adult population: a cross-sectional study. *Brazilian Journal of Physical Therapy*. 21(1). pp 44-50.

Larion, A., & Melenco, I. (2023). Considerations for strength training in children. *Annals of "Dunarea de Jos" University of Galati. Fascicle XV, Physical Education and Sport Management*, 1, 127-133.

Muppalla, S.K., Vuppalapati, S., Pulliahgaru, A. R., & Sreenivasulu. H. (2023). Effects of Excessive Screen Time on Child Development: An Updated Review and Strategies for Management. *Cureus*, 15(6), e40608.

Romeo, A., Edney, S., Plotnikoff, R., Curtis, R., Ryan, J., Sanders, I., ... & Maher, C. (2019). Can smartphone apps increase physical activity? Systematic review and meta-analysis. *Journal of medical Internet research*, 21(3), e12053

Rueggsegger, G. N., & Booth, F. W. (2018). Health benefits of exercise. *Cold Spring Harbor perspectives in medicine*, 8(7), a029694.

Segar, M, Jayaratne, T., Hanlon, J., Richardson, C. R. (2002) Fitting fitness into women's lives: effects of a gender-tailored physical activity intervention. *Women's Health Issues*, 12(6), pp 338-347.

Sigman, A. (2012). Time for a view on screen time. *Archives of disease in childhood*, 97(11), 935-942.

Stalsberg, R.; Pedersen, A.V. (2018) Are Differences in Physical Activity across Socioeconomic Groups Associated with Choice of Physical Activity Variables to Report? *Int. J. Environ. Res. Public Health*, 15, 922. <https://doi.org/10.3390/ijerph15050922>

WHO (2010). Global recommendations on physical activity for health. Available at: <https://www.who.int/publications/i/item/9789241599979> (Accessed: 09 November 2023)

WHO (2020). Global recommendations on physical activity for health. Available at: <https://www.who.int/publications/i/item/9789241599979> (Accessed: 09 November 2023)

Williams, N. (2017). The Borg rating of perceived exertion (RPE) scale. *Occupational medicine*, 67(5), 404-405.