

Designing physical activity environments to include nature enhances positive physical and psychological benefits

Physical inactivity has been identified as a pressing health issue across the globe because has been directly related to mental and physical ill health. Insufficient physical activity (PA) is now the fourth leading underlying cause of premature mortality. As a result there has been a broad international effort to promote physical activity and educate populations about the need for physical activity. Despite this, 75% of the global population are still not undertaking enough physical activity to reduce the possibility of illness and promote wellbeing. One important factor that has been generally overlooked is that modern day environments may not be conducive to some population groups becoming, and remaining, physically active. Appropriately designed everyday environments that encourage different population groups to enhance physical activity levels, and gain the health and wellbeing benefits, might be lead to a greater participation levels.

Research over the last decade is showing that engaging with nature (e.g., exercising or being physically active in parks, forests, gardens, trails, or seashores) enhances the uptake of PA and makes available the physical and psychological benefits of PA. However, rapid urbanisation around the world means that currently over 54 % of the population now lives in cities away from such natural environments. Effectively designing opportunities that integrate nature into urban surrounds, and invite engagement with natural environments in the urban design process, can be a tangible method to enhance the physical and psychological benefits of physical activity whether indoors or outdoors.

In modern high rise cities, where exercise is mostly undertaken indoors, this might make a big difference to individual wellbeing, by not only attracting exercisers, but also enhancing benefits for those already active. Evidence suggests that active city dwellers who might habitually listen to their own music, watch TV programmes, movies or stare at the control panel display on a treadmill, could experience different physical and mental benefits by watching images of nature. Research shows that while music might be good for providing a beat for maintaining or leading pace without a need for mental engagement, running can become quite mechanical, especially for habituated treadmill runners. Runners mentally switch off, which might make them more sensitive to physical tiredness and not attuned to their surroundings. In contrast, incorporating natural elements during PA provides richer information and the potential to accrue more benefits (e.g., physical, psychological and emotional). Viewing a virtual video of running in a park provides abundant information for the runner to perceive including the terrain, weather, lights, trees, flowers, animals and pedestrians. This rich information might encourage people to better engage with the environment instead of concentrating on performing physical movements. Engaging with nature during PA might change physical activity experiences and accrue additional psychological and emotional benefits across a wider range of exercisers.

A recent study of treadmill running in a gym supported these theoretical principles. The study

compared running on a treadmill for twenty minutes under usual gym conditions (listening to music or watching TV images) and when viewing a dynamic or a static image of a nature scene. Results showed that similar levels of energy were expended across the three conditions. No differences in negative affect (feelings) were accrued in any conditions. However, running with a nature scene enhanced positive affect in the same way as the preferred gym conditions. This study supported the point that viewing nature scenes during physical activity can be as functional in enhancing positive affect, as choosing their preferred exercising conditions.

To summarise, these findings suggested that involvement with nature during physical activity might be beneficial in facilitating psychological wellbeing and physical health via offering a wider landscape of opportunities for positive physical possibilities and mental responses in different urban populations.

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