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Short communication

An igniter for personal climate action?☆

Christie Nicole Godsmark[a,b,*]

[a] School of Public Health, University College Cork, Western Road, Cork T12 XF62, Ireland
[b] Environmental Research Institute, University College Cork, Lee Road, Cork T23 XE10, Ireland

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Introduction

The international climate change summit, COP26, once again focused the world's attention to one of the greatest challenges of our time, a challenge that not only disrupts our environment but can impart devastating consequences to other aspects of society as well, including effects on our health. The recent release of the Intergovernmental Panel on Climate Change's Working Group I and Working Group II contribution to the Sixth Assessment Report [1] details the climate crisis that the world collectively is facing. It is well-established that environmental and climate hazards can have an impact, be it directly or indirectly, on human physical and mental health. Within the academic community, there has been a surge of engagement with the topic of climate change and health in recent times. Simply inserting "climate change" AND "health" into PubMed shows that an increase in the number of publications since approximately 2008 is evident. However, there is still more research needed.

Climate action and health co-benefits

In an attempt to "avoid the unmanageable and manage the unavoidable" [2], climate action is needed, and contemporary thinking challenges us to maximize the benefits of our positive actions. Climate and health co-benefits could be achieved from actions that mitigate climate change and simultaneously improve health, or vice versa, those that aim at improving health and simultaneously mitigate climate change. For example, climate and health co-benefits are apparent in actions that encourage active travel such as walking or cycling in place of private transport powered by fossil fuels. This not only reduces polluting climate-altering emissions, but also has the potential to improve health through better air quality and increased exercise. Another example is increased greening such as tree-planting, especially in urban areas. Whilst trees sequester carbon, assisting in climate change mitigation, trees also can help us adapt to some of the challenges and risks a changing climate presents, for example by providing shade, cooling the air, improving air quality, and improving management of excess water. Indeed, research has also established associations between exposure to trees, forests or green spaces and various health outcomes such as stress [3], blood pressure levels [4], cardiovascular conditions, and lower-respiratory-tract illness, [5] to name a few. Whilst the health and environmental benefits of protecting and promoting trees and green spaces are apparent, a drastic and long-lasting phase-out of polluting emissions must occur alongside such efforts.

Making it personal

It is imperative that climate action happens at the global level and extends right down to the personal level. Communicating the links between climate change, human health and potential co-benefits of climate action, combined with the tangible and relatable aspect of trees and tree-planting, could be a mechanism to spark personal climate action. The intersect of climate change, health and trees was the theme of the Irish Research Council New Foundations-funded CATCH project (Communication and Action through Tree-planting for Climate-Health) at University College Cork in Ireland. The project

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* Corresponding author at: School of Public Health, University College Cork, Western Road, Cork T12 XF62, Ireland.
E-mail address: christie.godsmark@ucc.ie

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consisted of three major activities, firstly an informative online event, next the production of an animation, and finally tree-planting.

An informative online event was held in May 2021 and was opened with a 5-minute address from the president of the Tree Council of Ireland, thereby hoping to elevate the importance of the topics to those who attended. Along with various presentations, a video from a local environmental advocate was shown at the event who answered a series of questions on trees for the region and demonstrated tree-planting technique. The second activity was an animation of approximately 5-minutes (accessed here: https://youtu.be/Zf8XQ5cPMA4) which was created as part of the project focusing on the intersection of climate change with health and mentioning some co-benefits including active travel and increased greening. Several participants who registered for the online event were then involved in the final activity of the project, the action phase – tree-planting. Sixteen participants were provided with a native Irish tree for planting on their own site toward the end of the year. By giving ownership of the tree-planting and importantly, tree care, to the individuals, it is hoped that the tree is looked after, and the effort is long-lasting. In this way, planting a tree, alongside an introduction to climate change and health, might spark engagement with, and personal action for, a global, complex challenge. Perhaps the simple act of planting a tree could be the action that ignites a greater environmental awareness and inspires even further climate action.

Reflections and application

It may be helpful for others to build on the discussions within this article when implementing a similar action. From the author's opinion, the following reflections may be useful: be inclusive and strive for equity; bring in the health 'hook'; communicate 'the why'; and share knowledge. Some of these elements were present in the CATCH project whilst others came to light on reflection after the project had ended.

Be inclusive and strive for equity

It is important to reflect upon equitable climate action. Climate change-related impacts on health are not distributed equally and some people are more vulnerable than others. When it comes to climate action, just and equitable solutions are required. Whilst the climate action of tree-planting and high-quality green spaces offers a potential opportunity for advancing equitable climate and health action, some considerations are needed. For example, if hosting an online event, whilst many might be able to join remotely without the need to travel, it may exclude those without suitable devices or internet connection and limit the participants to those within certain mailing lists and networks. The necessity to move many activities online to protect participants' safety (e.g. during the pandemic) provides opportunities for further thought on equitable climate action that respects public health guidelines. An example of an appropriate solution could be to record certain talks or presentations for disadvantaged participants to view at a later stage when it is safe to do so, such as when public libraries re-open. Referring to tree-planting more broadly, within the literature, a more equitable approach may include various community considerations such as socio-economic and socio-demographic aspects including income, race, ethnicity, minority communities and education factors to name a few [6,7,8]. Other factors also will require planning such as tree maintenance. It is important to have the surrounding community on board, particularly when the tree is planted on communal space. This will likely result in greater acceptance and higher likelihood of long-term tree care. Alongside the various health and environmental benefits trees and green spaces can provide, there also can be social benefits including improved social cohesion and community. Turner-Skoff and Cavender [9] published a review categorizing urban tree benefits as "health and social wellbeing; cognitive development and education; economy and resources; climate change mitigation and habitat; and green infrastructure", and state that, be it directly or indirectly, trees can aid in progress on 15 of the Sustainable Development Goals (SDGs).

Given the host of potential environmental, health, wellbeing, and societal benefits of trees and green spaces, incorporating inclusivity and equity in tree-planting projects may maximize the benefits of trees to those most in need.

Bring in the health 'hook'

Within the context of public health, in 2010 Maibach and colleagues explored public reactions to message framing around climate change in a small American cohort stratified by various groups [10]. The authors stated: "We believe that the public health community has an important perspective to share about climate change, a perspective that makes the problem more personally relevant, significant, and understandable to members of the public." [10,pg 1]. Additionally, the authors argued that focusing on co-benefits and solutions also may assist with public engagement. Many others have since built on Maibach et al.'s contribution and it is the author's belief that this can also be useful to consider when communicating benefits of climate action and tree-planting. Everyone possesses a state of health, and thus can personally relate to health. In this way, bringing in the health hook when framing the message aims to communicate climate change and climate action from an understandable, personal and relatable perspective.

Indeed, at this point, a mention of climate anxiety is needed. Whilst definitions and vocabulary vary, many identify climate anxiety as a form of eco-anxiety primarily concerned with anthropogenic climate change [11]. Panu [11] acknowledges that pathological and paralyzing forms of eco-anxiety can exist but asserts that "many—probably most—forms of eco-anxiety are non-pathological". Interestingly, it has been posited that eco-anxiety can drive reflection, information seeking, problem-solving, and behavior change, or various combinations thereof, indicating a form of "practical eco-anxiety" [11]. Further research should explore if tree-planting could be one problem-solving outlet of practical eco-anxiety.

Communicate 'the why' and share knowledge

Communication about why it is important to take climate action and, in this case, engage in tree-planting, is essential. The climate crisis is one of the most crucial challenges of our time and requires both mitigation and adaptation action, encouraging co-benefit opportunities where possible and promoting sustainable development within an ethos of human rights, justice and equity. Trees can provide dual mitigation and adaptation action. It is also important to communicate that tree-planting should occur alongside a drastic and long-lasting phase-out of polluting emissions. Sharing knowledge and information can include, but is not limited to, that which provides a greater understanding of climate change, health and co-benefits; the many benefits of trees and green spaces (e.g. environmental, health, social, etc.); the importance of promoting new and protecting existing ecosystems; tree-care; as well as practical information such as planting the right tree in the right place at the right time, how and with whom. Linking in other pertinent issues such as biodiversity and phasing out polluting emissions also are important. Seddon et al. [12] articulate additional high-level guidelines of nature-based solutions which broadly include: that rapid fossil fuel phase-out must still occur even with nature-based solutions; to consider a variety of ecosystems including forests, land, and sea; to include respect for local communities', Indigenous Peoples' and stakeholders' rights with their engagement and consent; and to ensure benefits for biodiversity. More detail is available from Seddon et al. [12].

Conclusion

Tackling one of the greatest challenges of our time may be overwhelming for some. Indeed, to address climate breakdown we need action. Action at the global level is needed along with action right down to the individual level – personal climate action. Empowering individuals to engage with personal climate action can be complex. Equipping individuals with knowledge, complimented with an action of purposeful tree-planting, may be one way to ignite a greater environmental awareness and appreciation, with the hopes of sparking further personal climate action.

Declaration of Competing Interest

The author declare that she has no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Supplementary materials

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