Youth Climate Change Activism: How Activism in Youth can be Encouraged to Help Combat Climate Change and Reduce Youth Health Impacts

Lorely M. Ruiz
University of San Francisco, lmruiz4@usfca.edu

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Youth Climate Change Activism: How Activism in Youth can be Encouraged to Help Combat Climate Change and Reduce Youth Health Impacts

Lorely M. Ruiz
School of Nursing and Health Professions, University of San Francisco
Master’s in Public Health Program - MPH 683 (ILEX)
Dr. Kelly L’Engle
August 9, 2022
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YOUTH CLIMATE ACTIVISM & REDUCE HEALTH IMPACTS

Abstract

While the effects of climate change are already affecting populations throughout the world, youth will have to deal with the full array of consequences due to the inaction of people in power and environmental regulation failures. Climate change is an issue that needs to be dealt with urgently due to the disproportionate burden it has on youth and future generations. A scoping literature review was conducted to analyze existing literature on climate change activism among youth throughout the globe. Research, practice, and policy recommendations were made to help address gaps in existing literature such as limited research on youth climate activists who have historically been underrepresented in existing spaces about climate change, literature on encouraging youth climate activism to help combat negative youth health impacts resulting from the climate crisis, and the overall lack of available literature on youth climate activism.

The recommendations made are as follows: Research 1. Prioritize investigating how youth from developing countries and underrepresented communities are disproportionately affected by the climate crisis. 2. Conduct studies to analyze potential programs that can be used to encourage climate change youth activism. Practice 1. Encourage adult climate activists to mentor and encourage youth to participate in climate change activism. 2. Actively include youth from developing countries and historically underrepresented youth in existing climate change spaces. Policy 1. Include youth as stakeholders in the climate and environmental policy-making process. After analysis of the literature, it is recommended that a systematic literature review be conducted. Youth activism needs to be encouraged to mobilize both youth and members of their community to combat the worsening effects of climate change and the resulting health impacts affecting youth.
Note: This paper is part of a series regarding eco-anxiety and climate activism among youth. The following papers are part of the series: Ask Your Doctor About: Prescribing Activism for Eco-Anxiety in Adolescents, Building Sustainable Environmental Activism Programs for Youth, Meet Me in the Middle: A Scoping Review on Understanding Adolescent Needs in Climate Communication, Utilizing the Power of Youth for Climate Action: Implications for Health Professionals. These papers were written to meet USF MPH Behavioral Health program CEPH Foundational Competencies (Appendix A).
Introduction

Climate activism among youth has increasingly been in the spotlight and noticed by adults, political figures, and other youth who have yet to participate in advocating for climate change mitigation. Due to this rapid uptick in youth climate mobilization, the United Nations (U.N.) hosted the first Youth Climate Summit in 2019 at their headquarters in New York (Han & Ahn, 2020). Youth have displayed that they have political agency regardless of age, and they can influence various domains involved in the fight against climate change due to the range of activism they partake in. Youth climate activists use the power of collective action, which is streamlined by the increased use of social media, to strengthen and increase their numbers for calls to action (Han & Ahn, 2020). Inaction from people in power have caused youth to mobilize and advocate for policies and systematic changes to combat present and future effects of the climate crisis.

Underrepresented youth belonging to diverse communities have an elevated risk of being affected by the consequences of climate change due to insufficient resources to counter climate-related impacts (Chersich et al., 2019). This has caused youth belonging to developed nations to prioritize elevating the voices of those who have been disenfranchised and actively left out of climate change spaces. There is no go-to solution to address the climate crisis, but youth-led movements can be utilized to influence and enlist others to help fight against climate change and to preserve the future of both youth and succeeding generations. This scoping literature review will identify gaps in existing literature that will be referenced when suggesting research, practice, and policy recommendations. These recommendations aim to increase youth climate activism, support current youth climate activists, and help reduce negative health impacts on youth that may result from the climate crisis.
Background and Literature Analysis

Evidence Indicating Climate Change Disproportionately Affecting Youth

The effects of climate change have been discussed for many years in terms of how it is impacting different nations, populations, and ecosystems. Unfortunately, people throughout the globe are still denying the effects of climate change, delaying action and policy, and otherwise remaining inactive. While adults in this generation are already experiencing impacts of climate change, youth will have to deal with the full array of consequences from the neglected planet due to the lack of addressing climate change exacerbators. Youth from diverse communities with limited resources are at even more risk since they will not have as many resources to counter the impacts of climate change, especially those who are living in abject poverty or are not able-bodied (Chersich et al., 2019). Since the effects of climate change vary from region to region, youth throughout the world are impacted at different rates as well.

In the 2015 Paris Agreement, it was recognized that if the global temperature rises 1.5°C above pre-industrial levels, the consequences of climate change can potentially create an irreversible threat to all communities around the world and the planet itself (IPCC, 2018). Climate change is caused by various factors created by the industrialization of countries around the world, but societal dependence on systems created by industrialization creates division on how countries need to tackle climate change and the urgency to enact these changes. The effects of climate change impact food security, access to potable water, health, housing security, and many natural ecosystems; these impacts will disproportionately affect developing countries, youth, and future generations (Sanson, Van Hoorn, & Burke, 2019). Existential threats and rapidly changing ecosystems have endangered the youth of today, many of whom have been trying to bring urgent action to address these alarming changes. The causes of negative health
impacts affecting youth are intersectional, so if the effects of climate change are not prioritized, youth health impacts will suffer exponentially due to not having proper resources to address their overall well-being.

*Health and Economic Impacts of Climate Change in Youth*

Climate change not only affects the health of youth around the world, but it also creates both direct and indirect effects in areas experiencing the consequences of the climate crisis. It affects communities by disrupting the basic requirements needed to live a healthy life such as clean water, air, and access to food. According to the World Health Organization, youth are particularly more vulnerable to the impacts of climate change since it is estimated that they will suffer more than 80% of the illnesses, injuries, and deaths due to the impacts of climate change (Sanson, Van Hoorn, & Burke, 2019). Beside the biological and psychological factors being affected, social, economic, and ecological factors that affect health will also be disrupted since many of these factors are intersecting and have influence over each other. The climate crisis negatively impacts all aspects of adolescent well-being, especially youth who identify as Indigenous, refugees, disabled, suffering from chronic illness, and who are historically underrepresented due to race, ethnicity, gender, and socioeconomic status (McGushin et al., 2021). Physical health impacts on youth are evident due to toxins in air and water systems, rapidly changing global temperatures, and exposure to pollutants while still growing up, but the emotional and mental impact climate change has on youth is starting to be recognized as well. Anxiety related to climate change, or eco-anxiety, is a rational response to a real and evident global threat that is and will continue impacting youth (Crandon, Scott, Charlson, & Thomas 2022). Climate change related biopsychosocial factors affecting youth and youth health are intersecting, and need to be addressed as a whole to improve health impacts.
The financial and economic burdens of climate change differ based on country and geographic location. Global aggregate economic growth is projected to be lower if the global temperature does not remain or is under 1.5°C compared to 2°C (IPCC, 2018). According to the Intergovernmental Panel on Climate Change (IPCC) report, this projection excludes the costs to mitigate and adapt different investments to the changes made to combat climate change as well as any benefits produced by these same actions. Unfortunately, it has been projected that if climate effects are not addressed, numerous countries located in the tropics and Southern Hemisphere subtropics are at risk of experiencing the largest detrimental impacts on economic growth due to climate change and global temperatures rising from 1.5°C to 2°C (IPCC, 2018). Rising water levels, rapid changes in climate, and forced migration due to the effects climate change has on countries affect various economies around the world. Natural resources will soon begin to be scarce in countries that have not been drastically affected by climate change effects already due to the strain put on other countries from the lack of action to address climate change and overburdening of life-dependent resources. About 85% of children in the world live in low to middle income countries, which are generally located in geographic areas with weak infrastructure and sparse resources to combat climate change impacts (Sanson, Van Hoorn, & Burke, 2019). This puts youth from these countries at an economic disadvantage to fight present and future climate change effects including the impact on their wellbeing.

Youth as Climate Change Activists

Literature regarding youth activism in the realm of climate change is limited, but increasing due to the movements and calls to action created by youth throughout the world. Studies on youth-led organizations and programs aiming to increase environmental health literacy with a focus on community-led activism are examples of activism-specific approaches;
these focus on encouraging youth to foster political interest and take action in climate justice efforts (Hilder & Collin, 2022; Madrigal et al., 2020). Other studies focus more on the social movements themselves. Raducu and colleagues (2020) highlight how social campaigns are an essential component to increase climate change discussions at a more local level in order to influence and create collective responses.

Additionally, when reviewing literature about climate change youth activism, it seems that the literature available mainly consists of articles about youth from countries deemed as “developed” compared to articles about youth from underrepresented countries. Eide and Kunelius (2021) synthesized interviews of youth activists from a global sample and highlighted three main elements about the interviews conducted: 1) the relationship and reliance activists have on existing science about climate change, 2) movement roots due to local and personal experiences despite global reach, and 3) opportunities for communicating about climate change due to the current available technology and political landscape. It was found that most activists viewed themselves as members from a global movement to combat climate change or as individuals who are fighting against climate change effects (e.g. due to geographic location) and are then considered activists due to their work. For instance, youth who speak at UN conferences about the global impact of climate change versus youth who are trying to combat climate change due to experiencing the effects first-hand are both activists even if their initial reasons to take action were different.

With the dramatic rise in use of social media around the world, it has become a key tool for activism in youth and has been highlighted in more recent literature about youth activism. The reach of social media platforms can be limitless, which means it can be leveraged by youth to obtain knowledge about different climate and environmental topics and key issues, spread
awareness, and rally support for climate change solutions and actions. A content analysis study of videos on Tiktok reported that from the sample of 100 English language videos they analyzed, they collectively received about 206,000,000 views, 40,000,000 likes, and 670,000 comments (Basch, Yalamanchili, & Fera, 2022). This shows how easily information is disseminated through social media and the importance for accurate and reliable information to be used for such content. Parry, McCarthy, and Clark (2022) explored how reporting on climate change issues through social media and media in general can also affect youth and their well-being, specifically their emotional and mental well-being. This content analysis highlighted how youth have personal coping mechanisms to assist them when reading and reporting climate change material on social media. Anxiety related to climate change in youth is a main issue that is becoming more prevalent, so it needs to be acknowledged when encouraging youth to become active in the fight against climate change. Overall, the literature available regarding social media, climate change activism, and youth is sparse, but slowly growing in numbers.

A few pieces of literature address how youth are also taking innovative actions to make people in power listen. A qualitative study assessed climate litigation as a key strategy that youth have begun to use in order to voice their demands for effective policies to combat the climate crisis (Parker et al., 2022). This study identified cases which involved the lack of effort to reduce the following: carbon emissions, climate change mitigation, adaptation and assurances, and environmental regulations. Unfortunately, such litigation cases that are brought to court and led by youth are not taken too seriously or are dismissed due to limits on judicial authority and litigation procedures. However, youth-led litigation is being utilized around the world. These include a case from April 2018 in Colombia regarding deforestation in the Amazon, a case from 2017 in Portugal about abstaining from fossil fuel extraction, and many other legal actions.
spearheaded by youth in the United States (Sanson, Van Hoorn, & Burke, 2019). These climate litigation cases may not all result in a win, but they leave an impactful message that is heard by people in power and the affected communities. Even though youth may be at a disadvantage due to their age and how they are perceived, they are still influencing powerful entities by engaging in new tactics such as climate litigation.

An increasing amount of literature is highlighting that the fight for climate justice is more nuanced, especially for youth who have many intersecting identities. Fisher (2016) conducted exploratory in-depth interviews with 17 youth from 14 different countries, and the results displayed a focus on the journey to committing to climate activism by highlighting the relationship between concern for both nature and social justice. Climate change cannot be labeled as primarily an environmental or social justice issue since youth consider both as key intersecting issues when addressing activism related to climate change (Fisher, 2016). This study further exemplifies how youth are becoming involved in different spaces in the fight against climate change to benefit current and future generations as well as to connect with others that have similar ethics and values regarding climate change. A study conducted in Norway investigated why youth participated in the #FridaysForFuture climate protests and found that “politicized social identity, perceptions of environmental threat, and shared responsibility (collective guilt)” are aspects important to youth when deciding if they will partake in environmental protests (Haugestad et al., 2021). The study was specific to youth from Norway, but the results have similarities to the study conducted by Fisher. A concern for nature and climate change impacts as well as different aspects that make up the identity of youth are some key components in their decision to be involved in climate change and environmental activism.
Additionally, a thematic analysis of Greta Thunberg’s speeches identified that the need for both political and social change regarding climate change as well as identifying the causes for climate change mitigation resistance such as political leaders and capitalism shows how youth have agency in expressing progressive resistance (Holmberg & Alvinius, 2020). Youth have been able to effectively express their political agency and engage in collective resistance due to available social media and technology, acknowledging they are agents of change in both environmental and social justice arenas, and by being activists in the different spaces they belong to such as at demonstrations or at home. Mobilization against the status quo, acknowledging that youth face an unequal burden in the fight to stop climate exchange, and reclaiming agency are key topics being touched upon in emerging literature.

Based on the analysis of the available literature, it is clear that additional studies about climate change mitigation and youth activism are needed. They need to be conducted through a more meaningful lens due to the limited research available on youth from diverse backgrounds. The Social-Ecological Model (SEM) can be referenced when trying to assess different youth movements, the roots of the movement, and why these movements are important to not just the climate movement, but to the community and spaces youth belong to. Additionally, Social Cognitive Theory (SCT) can be considered when supporting current youth activists and to encourage non-activist youth to participate in climate change activism due to the similarities between SCT and the principles followed by youth activists (Bandura & Cherry 2020). Self-efficacy is behavior-specific, so adults and mentors can utilize SCT principles to encourage youth activism and engage youth who are still unsure about what role they can play in climate change activism. Climate change is an ongoing issue, so new research needs to focus on diverse
youth throughout the globe to assess and analyze new and ongoing youth activism and its impact on climate change mitigation and adaptation.

*How Activism can be encouraged in Youth to Combat Climate Change and Health Impacts*

After an analysis of the literature, it is evident that there has been acknowledgment on a worldwide scale that climate change is an issue that needs to be dealt with urgently. Lack of impactful action by leaders and people in power around the world has created a drive and purpose within various youth throughout the world to demand action to safeguard the planet and their futures. Youth have varying opinions about government and the power of legislation to combat factors leading to climate change due to current inaction, but the numerous social movements and advocacy efforts led and maintained by youth from different cultural, geographic, and socioeconomic backgrounds is viewed as hopeful. This paper will argue why youth activism needs to be encouraged and elevated for action and change to be made to combat the worsening effects of climate change and their impact on the health of youth. It will also identify gaps in existing research such as limited research on youth from developing countries and youth who have historically been underrepresented in existing spaces about climate change.
Methods

Research Approach

The goal of this scoping literature review and analysis was to identify current literature about climate change-related youth activism, how to encourage climate activism among youth, and youth climate activism in developing countries and among historically underrepresented communities. This literature search was conducted by investigating the limited research available in different available databases. The following databases were searched to conduct this literature review: PubMed, Fusion by EBSCOhost, Google Scholar, and Google. Information from IPCC reports were also reviewed. Publications referenced were not limited by year of publication due to the limited research in this topic. Some research questions considered when conducting this literature review included the following:

1. How can climate change activism be encouraged in youth?
2. What factors influence youth activism?

This literature review was used to create the recommendations discussed later in this paper (refer to Table 1).

Target Population

The target population was youth who consider themselves or are considered by others as climate change activists. The definition of youth itself varies greatly, so the ages highlighted in the literature varied. The overall age range in the literature included in the review was youth and young adults in their early teens to early thirties (typically late twenties). Moreover, historically underrepresented youth encompassed youth of color, youth from developing countries, and youth from different Indigenous communities. The literature search included youth from around the world who participated in climate change activism.
Key Words

The following keywords were used when conducting the literature search: climate change, youth activist, youth, activist, climate activist, youth climate activist, IPCC, IPCC report, youth health impacts, adolescent health. Regardless of the range of key terms used, the literature reviewed was still limited. This literature review consists of scholarly articles, official reports, and a few editorials to grasp the dominating themes in climate change youth activism and health impacts of climate change.

Literature Search Criteria

For this literature search, the inclusion criteria were very general. Inclusion criteria consisted of youth of any age from any location. They needed to be considered as youth activists either by self-identifying as a climate activist or viewed as climate activists by others. Exclusion criteria consisted of literature specific to adults in climate change activism.

Analysis Process

Upon identifying literature fitting the search criteria, it was reviewed to determine any commonalities and repetitive themes. Gaps in the literature reviewed were then identified. A total of thirty different pieces were reviewed and the majority were referenced in this paper.
Recommendations

Upon completing the literature review and analysis, three main gaps in the literature were identified. It was apparent that literature regarding youth climate activism, underrepresented and disadvantaged youth, and literature on encouraging and elevating youth climate activism to help combat the ongoing climate crisis along with the health impacts it creates is limited. With the varying spaces youth belong to and their perceptions toward activism in the climate and environmental activism arena, the different elements that influence youth participation in climate change activism need to be considered. The following listed recommendations can be taken to help increase youth climate activism, support current youth climate activists, and help mitigate or reduce negative health impacts youth may experience from the consequences of the global climate crisis. A summary of the recommendations in this section and supporting evidence is listed in Table 1.

Research Recommendations

1. Prioritize investigating how youth from developing countries and underrepresented communities are disproportionately affected by the climate crisis
2. Conduct studies to analyze potential programs that can be used to encourage climate change youth activism

Existing literature on climate change activism among youth is limited, especially among youth from developing countries. Future research needs to be conducted to learn how to encourage climate change activism in youth who are not already in climate activism spaces to help combat the worsening climate crisis. Youth can be seen as effective actors in promoting the consequences of climate change since their morals have not been fully influenced by any special interests and are mainly acting to preserve and save the world for future generations (Bandura &
Cherry, 2020). This causes youth to view climate activism through a different lens compared to older generations. Example research topics that can be conducted to address the gaps in the literature are listed in Table 2.

**Practice Recommendations**

1. Encourage adult climate activists to mentor and encourage youth to participate in climate change activism

2. Actively include youth from developing countries and historically underrepresented youth in existing climate change spaces

When providing support to youth activists and youth who are unsure about their role in climate activism, it needs to encompass the different types of youth activism within the different levels of the SEM model. Bronfenbrenner proposed that an individual’s development is ultimately determined and formed by the environment they are in (Crandon, Scott, Charlson, & Thomas, 2022). Adolescent perspectives on climate change and activism are influenced by the people, places, and experiences they have lived. They can partake in activism by critically analyzing their biases, at home, with organizations, within their community, and at governmental and global policy levels (see Figure 1). By using the SEM model, it can help bring awareness to obstacles preventing youth from engaging in climate activism in the various spaces they belong to. This can make it easier for adult activists to better understand youth and effectively mentor them to create a solid foundation for youth to thrive, especially youth who have been actively excluded from existing climate change activism spaces.
Figure 1.

*Social Ecological Model - How youth can engage in climate change activism at different physical and sociocultural levels in their environment*

**Policy Recommendation**

1. Include youth as stakeholders in the climate and environmental policy-making process

   Youth-led movements create collective power due to the masses of participants and can influence a spur in legislative action. For instance, after a mass shooting at a high school in Parkland, Florida, mass youth protests helped influence legislation to be created for sensible gun reform (Bandura & Cherry 2020). Bandura (2020) has highlighted how SCT has been utilized to address diverse global issues, especially when used through different media sources. SCT can be used in climate change activism, particularly by youth since they have a large presence on social media and can positively influence youth self-efficacy regarding climate activism. Youth utilize social media to share concerns, disseminate knowledge, and be politically active (Wielk & Standlee, 2021). If youth are included as stakeholders to advance climate change mitigation
legislation, they can use their collective power to inform, influence, and promote why community members of voting age should support legislation aiming to help mitigate and reduce climate change effects and impacts.

**Funding for Research and Programs to Encourage and Mentor Climate Youth Activists**

Funding is needed to conduct further studies to assess how programs can encourage youth activism in youth from various communities as well as to provide opportunities for youth to advance in climate change activism arenas. The CDC’s Climate and Health Program has highlighted that they aim to provide state and local health departments with a Funding Opportunity Award to aid in assessment, planning, adaptation, and capacity building regarding climate change (Core Functions of CDC, 2019). Health departments should consider allocating these funds to conduct research on vulnerable communities youth belong to in order to determine any disproportionate climate change effects. Moreover, internship and volunteer opportunities can be created to involve youth in climate change assessments in their community by the local or state health department in order to provide a space for youth to garner knowledge and professional skills. For instance, an internship program offered to low-income, Latine high school students in Imperial County, CA has shown significant increases in self-efficacy in regard to taking action, communicating to government officials, and utilizing learned strategies and data to address health impacts in their community (Madrigal et al., 2020). These mentorship opportunities can help youth, especially disadvantaged youth, to increase their self-efficacy and promote further action to help advocate for climate change mitigation legislation and action on local or national levels.
Table 1.

**Recommendations and Supporting Evidence**

<table>
<thead>
<tr>
<th>Recommendations and Supporting Evidence</th>
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<tr>
<td><strong>Research</strong></td>
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<tr>
<td>- Prioritize investigating how youth from developing countries and underrepresented communities are disproportionately affected by the climate crisis</td>
<td>(Bandura &amp; Cherry, 2020) (Hilder, &amp; Collin, 2022) (Chersich et al., 2019) (Raducu et al., 2020)</td>
</tr>
<tr>
<td>- Conduct studies to analyze potential programs that can be used to encourage climate change youth activism</td>
<td>(Eide &amp; Kunelius, 2021) (Holmberg &amp; Alvinius, 2020)</td>
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<tr>
<td><strong>Practice</strong></td>
<td></td>
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<tr>
<td>- Encourage adult climate activists to mentor and encourage youth to participate in climate change activism</td>
<td>(Bandura &amp; Cherry 2020) (Madrigal et al., 2020) (Eide &amp; Kunelius, 2021) (Parker et al., 2022)</td>
</tr>
<tr>
<td>- Actively include youth from developing countries and historically underrepresented youth in existing climate change spaces</td>
<td>(Fisher, 2016)</td>
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<tr>
<td><strong>Policy</strong></td>
<td></td>
</tr>
<tr>
<td>- Include youth as a stakeholder in the climate and environmental policy-making process</td>
<td>(Wielk &amp; Standlee, 2021) (Madrigal et al., 2020) (Eide &amp; Kunelius, 2021) (Parker et al., 2022) (Fisher, 2016)</td>
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Table 2.

*Research Topic Suggestions*

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<th>Research Topic Suggestions</th>
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<tr>
<td>1. Assessing if a youth-led program can encourage low-income youth in rural communities in the United States to become advocates for climate change action</td>
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<tr>
<td>2. Association between health risks and climate change effects in Indigenous youth and youth from the Global South</td>
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<tr>
<td>3. Determining if climate activism among all youth can help negate the negative health impacts affecting youth resulting from the global climate crisis</td>
</tr>
<tr>
<td>4. How to mitigate disproportionate climate change effects affecting Black, Indigenous, and the various communities of youth of color</td>
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<tr>
<td>5. Differences in climate activism between marginalized youth and youth who have not been actively systematically oppressed</td>
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</table>
Implications and Discussion

Current literature has extensive implications for combating climate change through youth activism. Youth are very influential agents of change due to how they are perceived, how they garner influence, and their use of collective action. Unfortunately, the available literature on youth climate activism, underrepresented and disadvantaged youth, and literature on encouraging youth climate activism is limited. One of the major gaps in existing literature includes the lack of research on youth from developing countries and youth who have historically been underrepresented in existing spaces about climate change. The research, practice, and policy recommendations listed in Table 1 are meant to help increase climate activism among diverse youth, and to actively and effectively support current and new youth climate activists in order to help mitigate negative health impacts resulting from the global climate crisis.

Upon analysis of the existing literature, it is evident that youth are partaking in many novel methods to combat climate change and the inaction from leadership around the world. Youth have the capacity to express major resistance and political agency, especially through the means of social media to create opinion among the masses and level the playing field between decision-makers, world leaders, and the public (Holmberg, & Alvinius, 2020). Regardless of their age, it does not impede them at all levels of influence and can actually work to the advantage of youth in the fight against the climate crisis.

Since youth from diverse backgrounds are considered marginalized to some extent due to age or other sociodemographic factors, they have used this commonality to develop a sense of shared identity and to consciously criticize the factors that have created the existing established order (Honwana, 2019). Even though youth have achieved much throughout the youth-led social movements and actions, it is still difficult to create actual systemic change in the countries where
youth reside. Many youth express dissent toward policies and practices that contribute to climate change in more ways than one which result in various levels of impacts and repercussions. Political dissent suggests that the actor has some form of agency and the ability to have a sense of purpose through expressing opinions or acting against the dominant beliefs in current society (O’Brien, Selboe, & Hayward, 2018). In this context, youth see themselves as agents of change where they are trying to prevent the disastrous consequences of climate change by advocating for new policies, but also advocating for a new societal system. Due to the varying levels of dissent, youth have been voicing for change at both low and high levels such as fighting for better infrastructure in their hometown to protesting in the street to impede public officials from ignoring them. Adults and communities where youth belong to can help advocate and amplify youth voices to achieve change and help fight for the greater social good.

Existing literature on climate activism among youth seems to focus on developed countries and youth who fit into current societal norms. It has been argued that current research perpetuates colonialism, which in turn has actively excluded youth and Indigenous communities from climate activism spaces (Ritchie, 2021). Future research needs to actively include Indigenous youth and youth from the Global South in order to help increase climate activism among all youth, and to negate the negative health impacts resulting from the global climate crisis. Disenfranchised youth need to actively be put on the forefront of climate activism due to their beliefs and relationship with the planet. Youth from the Global South and Indigenous youth are disproportionately being affected by the effects of the climate crisis, which more so magnifies why they need to be included in existing spaces about climate change. A large portion of youth live in low to middle income countries with weak infrastructure and minimal allocated resources to combat the consequences of the climate crisis (Sanson, Van Hoorn, & Burke, 2019).
Due to this, Black, Indigenous, and the various communities of youth of color are disproportionately experiencing the current effects of climate change, and will be vastly more affected as time goes on. Marginalized youth have been working to make this known and have utilized resources available to them, such as social media, to garner support from youth worldwide to advocate for change and to combat the climate crisis.

After conducting this literature analysis, some strengths and limitations were identified. One of the main strengths identified was that literature about climate activism among youth around the globe was condensed while identifying gaps in the literature. The gaps identified were essential since it involved youth from disadvantaged backgrounds and who belong to communities presently experiencing the effects of climate change first hand. Another strength involved highlighting the different ways that youth engage in climate activism and how these have evolved due to technology, legislation passed or not passed at different levels of government, and reports released from the IPCC. A few limitations were persistent. The one main limitation was that the available literature about youth activism in the climate change arena is still limited. Literature regarding encouraging climate activism among youth and how to utilize youth activism to mitigate health impacts experienced by youth due to the effects of climate change are even more limited. This literature analysis was done in the fashion of a scoping review, meaning that it serves as a preliminary assessment to identify the extent of existing literature.

Based on what was found by this literature review, it would be conducive to perform a more robust and expansive systematic literature review. Since research and resources are currently limited, a scoping review was conducted in order to assess any readily available literature on youth activism, particularly climate youth activism. The recommendations made in
this paper can be used as a guideline on what type of literature that needs to be included, if any, and to what extent any other existing literature is available on this topic. Additionally, the recommendations made in this review can be utilized when conducting further research on climate youth activism, encouraging climate activism in youth, and to actively include youth from underrepresented communities.
**Conclusion**

Existing literature on climate change activism among youth is limited and lacks diversified youth populations. Youth activism needs to be encouraged to mobilize both youth and members of their community to combat the worsening effects of climate change and the resulting health impacts affecting youth. Youth who have historically been underrepresented need to be actively prioritized to participate in existing spaces about climate change due to the disproportionate effects climate change has on them. The research, practice, and policy recommendations listed in Table 1 can be referenced to increase youth climate activism, support current youth climate activists, and help mitigate negative youth health impacts resulting from the climate crisis. After analysis of the literature used in the scoping review, it is recommended to conduct a systematic literature review. The recommendations listed in Table 1 and the research topic suggestions in Table 2 can be used as a guideline as well as a reference for future research on climate youth activism, encouraging climate activism in youth, and how to actively include youth from underrepresented communities in climate change spaces.
References


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Community Air Monitoring in Imperial County, California. *International Journal of Environmental Research and Public Health*, 17(5), 1537.
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https://doi.org/10.25122/jml-2020-0173


Appendices

*Appendix A. CEPH Foundational Competencies*

<table>
<thead>
<tr>
<th>Competency</th>
<th>Evidence-based Approaches to Public Health</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Apply epidemiological methods to the breadth of settings and situations in public health practice</td>
</tr>
<tr>
<td>2.</td>
<td>Select quantitative and qualitative data collection methods appropriate for a given public health context</td>
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<tr>
<td>3.</td>
<td>Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software as appropriate</td>
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<tr>
<td>4.</td>
<td>Interpret results of data analysis for public health research, policy and practice</td>
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<table>
<thead>
<tr>
<th>Competency</th>
<th>Public Health &amp; Health Care Systems</th>
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<tbody>
<tr>
<td>5.</td>
<td>Compare the organization, structure and function of health care, public health and regulatory systems across national and international settings</td>
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<tr>
<td>6.</td>
<td>Discuss the means by which structural bias, social inequities and racism undermine health and create challenges to achieving health equity at organizational, community and societal levels</td>
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<thead>
<tr>
<th>Competency</th>
<th>Planning &amp; Management to Promote Health</th>
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<tr>
<td>7.</td>
<td>Assess population needs, assets and capacities that affect communities' health</td>
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</table>
8. Apply awareness of cultural values and practices to the design or implementation of public health policies or programs

9. Design a population-based policy, program, project or intervention

10. Explain basic principles and tools of budget and resource management

11. Select methods to evaluate public health programs

**Policy in Public Health**

12. Discuss multiple dimensions of the policy-making process, including the roles of ethics and evidence

13. Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes

14. Advocate for political, social and economic policies and programs that will improve health in diverse populations

15. Evaluate policies for their impact on public health and health equity

**Leadership**

16. Apply principles of leadership, governance and management, which include creating a vision, empowering others, fostering collaboration and guiding decision making

17. Apply negotiation and mediation skills to address organizational or community challenges

**Communication**
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<tr>
<td>18.</td>
<td>Select communication strategies for different audiences and sectors</td>
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<tr>
<td>19.</td>
<td>Communicate audience-appropriate public health content, both in writing and through oral presentation ✔</td>
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<tr>
<td>20.</td>
<td>Describe the importance of cultural competence in communicating public health content</td>
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<tr>
<td><strong>Interprofessional Practice</strong>*</td>
<td></td>
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<tr>
<td>21.</td>
<td>Perform effectively on interprofessional teams ✔</td>
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<tr>
<td><strong>Systems Thinking</strong></td>
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<tr>
<td>22.</td>
<td>Apply systems thinking tools to a public health issue</td>
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