Spring 5-18-2023

Building Sustainable Environmental Activism Programs for Youth

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Integrated Learning Experience

10 July 2022

Abstract

As the negative impacts of climate change become more and more common across the United States, many youth are experiencing eco-anxiety or other negative mental health impacts due to the state of the environment. Engaging with activism has been named as a potential mitigator of the negative impacts of climate change among youth, but the relationship between activism and youth well-being is an emerging area of research. To explore this relationship, this scoping review explored and synthesized available literature to inform the next steps. In addition to the community-level and society-level contributions that come from youth activism, there are also a number of individual-level benefits for the youth themselves, including improved mental health outcomes, increased knowledge and skills related to activism, and greater empowerment and connectedness. There is also evidence that activism can negatively impact the mental and physical well-being of youth due to increased stress, criticism, and burnout. However, knowing why youth are motivated to be active helps center their expected outcomes and goals. Research suggests that youth are motivated to take action because of negative direct experiences with climate change and how their communities experience climate change. These motivations are influenced by the personal identities of youth and how connected they feel to their communities. Applying this knowledge to research, interventions, and policy changes can mitigate the negative consequences of activism. Recommendations include further research, facilitating connection and centering activism on local issues, and increasing accessible activism opportunities, and building youth agency.

Intro

As the negative impacts of climate change become more and more common across the United States, many people have developed symptoms of eco-anxiety, or dread over the state of our environment. Climate change impacts the well-being of youth at a higher rate than other age groups, demonstrating a need for youth-centered strategies to address eco-anxiety. A possible solution for supporting youth is engaging them in activism. How activism can affect youth well-being is under-researched, so this scoping review will explore how activism can benefit youth and how to mitigate the harm that it could cause them.

Methods

Both the relationship between activism and youth well-being as well as the impact of climate change on youth well-being are emerging areas of research Due to this, the relationship between youth well-being and climate change activism is underresearched, so a scoping review was chosen to explore existing research. While a systematic review focus on evaluating available research to answer a specific research question, a scoping review synthesizes available knowledge across disciplines to explore concepts and questions (Colquhoun et al., 2014). A scoping review can help inform future research and interventions, both of which are needed to support youth well-being. To conduct this scoping review, I followed the steps outlined by Arksey and O'Malley (2005) as listed in Appendix A.

To begin, I formed the following research questions:

1. What motivates youth to engage with activism?

2. How does engagement with activism benefit youth?

3. Are there drawbacks of youth participation in activism?

4. How can drawbacks be mitigated and activism be sustained?

While investigating all of these questions, I also explored how motivations, benefits, and drawbacks can change depending on the identity of youth, specifically for Indigenous youth and other youth of color.

Finding relevant studies were completed through searching online databases, pulling from reference lists of resulting articles, and supplementing with grey literature when relevant. Search engines used were Fusion, APA PsychNet, and PubMed. Using broader search engines allowed me to pull relevant literature from outside of public health-specific journals. Search terms included the following: activism and/or community engagement and/or action, youth and/or adolescents, well-being, climate change, eco-anxiety and/or eco-depression, motivation, benefits, Black, minority and/or youth of color, Indigenous and/or Native, environmental/environment, Hispanic and/or Latino. A sample search is included in Appendix B.

From the resulting literature, I selected studies with a year of publication between 2000-2022, with a primary focus on literature published after 2012. Only literature written or translated into English was included due to a lack of translation capacity. Though I am focused on youth in the United States, I expanded my search to include literature about youth of other nationalities and adults who participated in activism to account for gaps in the literature.

After reviewing the titles and abstracts of the resulting literature, I began charting the data. The charting process included a full read-through of the text and then extraction of data into the following areas when applicable: Year and Journal of Publication, Study Focus, Study

Design, Population, Setting, Results, Discussion, and additional commentary. This process determined the final inclusion in this summary report.

Background

Climate change-related weather events have become more intense and frequent within the past few years, leading to greater negative effects on people's well-being (Buis, 2020). The disruption of these extreme weather events can cause emotional distress and specific mental health concerns, like eco-depression and eco-anxiety, which are defined as a chronic fear of environmental doom or any mental distress or anxiety associated with worsening environmental conditions (Coffey et al., 2021). Youth are especially affected by climate change and the negative mental health impacts; in a global survey of 10,000 young people ages 16-25, two-thirds of youths felt sad, afraid, or anxious about climate change (Hickman, 2021). In part, the impact is due to the transition in thinking among middle and late adolescents towards more abstract and long-term thought processes (Cox et al., 2019). Youth are able to think about the effects of climate change but are not always able to make decisions and changes that would mitigate these effects due to their lack of power in society (Cox et al., 2019). Youth and children will also have to live with the effects of climate change longer than adults will and young people's understanding of this is reflected by a higher prevalence of eco-anxiety among people ages 18-35 than adults older than 35 (Coffey et al., 2021).

The impact of climate change will also disproportionately affect youth from marginalized communities who face socioeconomic or racial inequities. These inequities have led to a lack of infrastructure and culturally-competent resources that can support marginalized communities through the effects of climate change (Patanaik et al, 2020). For example, a greater number of Black and Latinx/Hispanic teenagers express worry and urgency about climate change than their White

counterparts (Kaplan & Guskin, 2019). Indigenous youth in particular are greatly impacted by climate change because of their cultural relationship with the Earth and reliance on its resources. When researching and collaborating with the Stó:lō Nation in British Columbia, Gauer et al. found that climate change affected water sources and in turn, local salmon populations (2021). As self-identified people of the "river of rivers", Stó:lō Nation relies on the river and its fish both for cultural significance and as a necessary food source (Gauer et al., 2021). Similarly, the White Mountain Apache Tribe in Arizona has lost agricultural land due to wildfires and decreased rainfall, which has greatly affected their ability to provide for themselves and their identity as a tribe (Gauer et al., 2021)

Engaging with activism has been named as a potential mitigator of the negative impacts of climate change among youth. Youth activism can be defined as "the organized efforts of groups of young people to address the root causes of problems in their local, national, and global communities" (Ballard & Ozer, 2016). Actions can include volunteering, protesting, advocacy, and beautification projects. Activism can also be categorized into low-risk, or relatively safe activities, and high-risk, or actions that can result in harm (Hope et al., 2019). Environmental activism among youth has gained recognition within the past few in part due to the "Greta Thunberg Effect," but how activism positively and negatively affects youth well-being on an individual level is still being researched (Wallis & Loy, 2021). Understanding these effects and what motivates youth to engage with activism can help further engage youth and address negative mental outcomes.

Youth Motivations for Engaging in Activism

A variety of factors influence a person's motivation to engage in activism and these factors can be categorized into the different levels of the Social-Ecological model (SEM). McKenzie et al. explain that the SEM is based on the idea that a person's behavior is influenced and influences others on multiple levels of influence (2017). For youth, the main levels that shape their motivation to participate in activism are the intrapersonal, interpersonal, community/societal, and cultural levels.
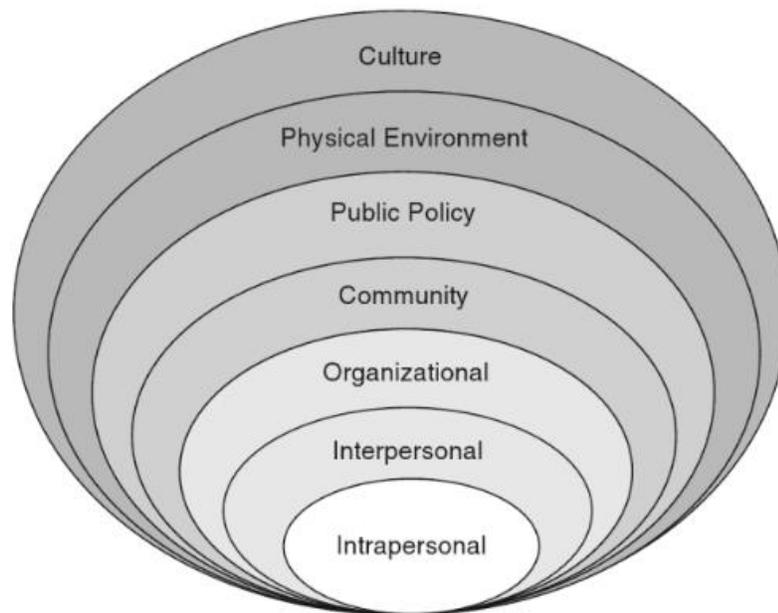
Figure 1. Social Ecological Model (Simons-Morton et al., 2012)

At the intrapersonal level, negative direct experience with a particular issue can motivate a person to take action. Earnshaw et al. (2016) investigated the relationship between stigma and activism among people living with HIV and found that those who reported experiencing stigma identified as activists more than those who did not experience stigma, highlighting past experiences of discrimination as a motivation for engaging with activism (2016). Although this study focused on

adults, Earnshaw et al.'s findings were supported by studies among Black adolescents and emerging adults. Frequent experiences of racist events and racial micro-aggressions as well as the resulting stress from these experiences among Black college students have been associated with more political and civic engagement (Hope et al., 2020). Experiences of racism have also been identified as a predictor of the likelihood of youth engagement with specific types of activism. Cultural racial discrimination among Black adolescents and emerging adults is related to a greater orientation toward low-risk activism (Hope et al., 2019). Similarly, there is a relationship between experiences of institutional racial discrimination and high-risk activism for the same population (Hope et al., 2019). These findings suggest that experiences with large-scale and/or small-scale harms can motivate youth to engage with activism. This role of anticipated harm as a possible predictor of activism orientation is also supported by findings from Hope et al.; they found that both physical and physiological anticipation of racism related to an orientation to low-risk activism among Black adolescent boys (2020).

While identifying themselves in a more concrete way, youth are also navigating how they relate to the people around them, their community, and society at large (Flanagan & Levine, 2010). As a result, their motivation for activism can be influenced by their relationship with their community and how their community is experiencing climate change. Having a positive sense of community (SOC), or a person's sense of belonging to a community and the confidence that their community will support them, increases the likelihood of youths participating in community organizations and contributes to feelings of empowerment (Lardier, 2018). In turn, higher feelings of empowerment indicate greater community participation (Lardier, 2018). In an environmental literacy and advocacy internship, a third of the participants joined to make a difference in their community, which was impacted by air quality issues (Madrigal et al., 2020). A strong SOC also

indicates that an individual places value in their community and finds value in contributing to it (Lardier, 2018). Black male youths who did not feel connected to the Black community were not motivated to engage in activism by anticipated racial injustice (Hope et al., 2020). Belonging to a community also allows for opportunities to see activism modeled by others, which could support personal engagement with activism. In their combined sample of German youth at-large and youth at an environmental protest, Wallis and Loy found correlations between the frequency of protesting and the perceived activism of their friends and the perceived activism of their parents (2021).

Motivation can also be influenced by personal values and identity. When comparing a sample of protesters at an environmental protest, Wallis & Loy found that participating in protests aligned with protesters' personal values more than the personal values of a nationwide panel (2021). This suggests that some youth may have personal values that can increase their motivation to engage with activism. Personal identity is especially relevant for youth from marginalized groups. Similar to SOC, racial centrality, or how important a person's race is to themself, can factor into youths' motivations to be active (Hope et al., 2020). In Black adolescent boys who highly valued their Black identity as a part of their identity, there was a relationship between physiological anticipation of racism and high-risk activism (Hope et al., 2020). This relationship is supported by the idea of minority stress, which refers to the disproportionate amount of stress minority communities experience dues to societal inequities and stigma (Frost et al., 2019). Researchers found evidence that minority stress was associated with higher levels of activism among transgender, non-binary (NB), and gender non-conforming (GNC) youth, but not in cisgender youth (Frost et al., 2019). A significant association between minority stress and activism was also found for youth of color, but not White youth (Frost et al., 2019). Understanding why youth are motivated to engage with activism can help build interventions that maximize the benefits of youth activism.

Benefits of Activism for Youth

In addition to the community-level and society-level contributions that come from youth activism, there are also a number of individual-level benefits for the youth themselves. Activism can support the well-being of youth and improve specific mental health outcomes. One study found that engagement with activism in adults with eco-anger led to improved mental health outcomes (Van Nieuwenhuizen et al., 2021) and a second study found that community engagement in adolescence and early young adulthood was linked to lower depressive symptoms in later adulthood (Wray-Lake et al, 2017). Organized action also can be a method for managing anxiety, processing experiences related to climate, and connecting with others to cope with feelings of isolation (Godden et al., 2021). Activism has also demonstrated a mediating effect on the relationship between minority stress and health for youth of color and transgender, nonbinary (NB), and gender nonconforming (GNC) youth (Frost et al., 2019). Overall positive well-being is also associated with greater pro-environmental actions, which may be due to the sense of autonomy and empowerment that engaging with activism can provide (Van Nieuwenhuizen et al., 2021).

Empowerment has multiple dimensions, including cognitive empowerment, or the knowledge of skills, abilities, and resources needed to be active (Wray-Lake & Abrams, 2020). Activism contributes to cognitive empowerment, by giving youth an opportunity to learn about political processes and how to navigate these processes to achieve their goals (Wray-Lake & Abrams, 2020). After completing a ten-session intervention about air quality issues and civic leadership, participants reported increased self-efficacy related to using environmental data to improve their health, planning to address community issues, and taking actions to address issues at

the local and state level (Madrigal et al., 2020) Similar increases in sociopolitical self-efficacy were found following a school-based intervention on youth participation in civic action (Hipolito-Delgado et al., 2022).

A person's confidence in being able to make a positive change or contribution to the world around them, or emotional empowerment, can also be increased through activism (Wray-Lake & Abrams, 2020). Activism is a way for youth to engage with social-political issues and increase their autonomy despite their need for reliance on adults (Frost et al. 2019; Van Nieuwenhuizen et al., 2021). There are also links between activism and self-esteem, self-confidence, and a sense of purpose (Ballard & Ozer, 2016). The third dimension of empowerment, relational empowerment, refers to the belief in a community of people to make systematic change (Wray-Lake & Abrams, 2020). Engaging with activism is a way for youth to contribute and connect to their community (Ballard & Ozer, 2016; Godden et al., 2021). Participating in organized actions can help build a stronger collective efficacy and foster a sense of community (Wallis & Loy, 2021). The relationship between activism and empowerment, especially emotional and relational empowerment, can be affected by ethnic identity, especially for youth of color (Lardier, 2018). Ethic identity, which refers to an individual's feeling of belongingness to their ethnic group, can help increase youth empowerment and connections to their community, which in turn improves well-being (Lardier, 2018).

Drawbacks of Youth Activism

Although there is evidence that participating in activism can support well-being and improve mental health outcomes, there is also evidence that it can contribute to poor health outcomes. The

sustained emotional and mental efforts required by activism can have a negative impact on mental health. Adult activists who live with HIV have reported greater depressive symptoms than non-activists living with HIV, but also reported greater well-being (Earnshaw et al., 2016). Among adults, eco-anxiety and eco-depression have been associated with lower-well-being (Van Nieuwenhuizen et al., 2021). In an analysis of longitudinal data, researchers found that political behaviors in adolescence and early young adulthood were weakly associated with increased depression in young adulthood (Wray-Lake et al., 2017). Similarly, the physical well-being of youth can also be negatively impacted by engagement in activism because of how stressful activism can be. Youth activists are at increased exposure to criticism and discrimination and experience increased anger and burnout (Van Nieuwenhuizen et al., 2021). Burnout is more likely when youth activists do not feel as though they are moving towards their goals or feel disconnected from the movement, (Godden et al., 2021).

The negative effects of activism can affect youth of color more than their counterparts. This is in part due to youth of color experiencing the impacts of climate change at a greater rate, so the outcomes of activism, beneficial or not, will impact them more directly(Van Nieuwenhuizen et al., 2021). Youth of color also experience minority stress, which can lead to burnout faster, especially since youth from marginalized communities often live in underserved areas without reduced or no access to activism activities (Lardier, 2018). Indigenous youth in particular can face these stressors more often and more intensely due to how closely the Earth is tied to their cultural and personal identities (Godden et al., 2021).

Accounting for these impacts and working to reduce them is necessary to support sustainable youth activism. The findings of this review will inform recommendations to address the negative impacts of youth activism and to support the well-being of youth engaging in activism. Due to the

multiple levels of influence affecting youth well-being, recommendations will focus on the

community, public policy, and cultural levels of influence and include recommendations for future

research to support further interventions at these levels.

Next Steps

With climate change youth activism growing in recognition, there needs to be further

research on how to make the movement sustainable and beneficial for youth. Current research

provides evidence that activism can improve mental health outcomes among youths by

empowering youth on multiple dimensions and by being an opportunity for youth to connect

with each other in a supportive way. Knowing how activism benefits youth and why youth are

motivated to be active, whether it be to help their community or to connect to others, allows us to

center the outcomes that they want from their activism when creating and facilitating

interventions. Understanding their motivations also helps remotivate youth when their mental

health is negatively affected the stress and demands of activism. These drawbacks are more

common when youth cannot reach their goals, so knowing their goals and improving the

likelihood of achieving them can make youth activism more sustainable and improve youth well-

being (Godden et al., 2021). As discussed, there are multiple factors that shape youth motivation

to engage with activism and the impact activism can have on them, so it is necessary that

corresponding interventions are implemented in different areas. To account for this, the

following recommendations will discuss future research, organizational and community-level

interventions, and public policies.

Research Recommendations

Literature focused on populations other than the target population was included in this scoping review because of gaps in the available literature, demonstrating the need for future research. Specifically, there is a need for research focused on North American youth climate change activists and how climate change activism affects their well-being. Their motivations for participating in activism also need to be investigated. Both of these areas of research must be inclusive of Indigenous youth and other youth of color to uncover any possible relationships between identity and climate change activism, especially since these populations are disproportionately impacted by climate change. The efficacy of the following interventions also needs to be evaluated and researched to ensure that they are supporting the well-being of youth activists.

Intervention Recommendations

Experiencing or being part of a community that has experienced the effects of climate change can be a major motivating factor for youth participation in activism (Earnshaw et al., 2016; Hope et al., 2020), so tailoring activism efforts to local issues that have arisen due to climate change can help motivate youth to participate in these efforts (McKenzie et al., 2017). For example, an environmental advocacy internship evaluated by Madrigal et al. centered on local air quality issues since the target community was heavily impacted by air pollution and already had high rates of asthma (2020). Applying a local lens to environmental issues could also help engage youth who aren't already active or do not view climate change as an issue that affects them (Gauer et al., 2021). Focusing climate change activism on local issues that impact youth and their community also leverages the relationship between a positive sense of

community and activism (Hope et al., 2020). This strategy also supports the empowerment and agency of youth since they are able to directly contribute to the well-being of their community and themselves.

Empowerment can contribute to overall well-being, so it is crucial that activism opportunities also center the growth and empowerment of youth in order to be sustainable and beneficial (Van Nieuwenhuizen et al., 2021). In addition to being an opportunity for youth to gain skills and knowledge, leading and participating in activism allows for youth to rely on themselves and each other to effect change rather than relying on adults. Youth can exercise their agency through activism by creating resources, organizing protests, and advocating in governmental spaces. There are a growing number of examples of activism groups organized and led by youth, such as the Fridays for Future movement and Advocates for Youth, that have demonstrate the impact youth can have as activists. Acting as a peer educator can also be an empowering role for youth activists. Peer education opportunities can be especially impactful for marginalized communities since their experiences of climate change are influenced by existing inequities. For Indigenous communities, peer education promotes connection to cultural practices and to other members from the same Nation or Tribe, which in turn improves well-being and adaptive capacity (Gauer et al., 2021). In addition to empowering youth, connection-based actions, like peer education, facilitate community-building and contributes to a sense of community among youth, which in turn supports well-being and motivation (Lardier, 2018). This could look like collaborations with other youth activists, community organizing, or check-ins with adults or other youth (Riemer et al., 2013). Similar to peer education, collaborations and other connection-based actions can benefit marginalized communities in particular. They can help counteract the division forced upon specific populations, such as the Indigenous community

and the Black community, through discriminatory policies (Gauer et al., 2021) and address
minority stress, which can contribute to burnout (Frost et al., 2019).

There are notable drawbacks to youth participation in activism, including greater mental
health concerns and burnout, so it is important that activism interventions address these
drawbacks preemptively. Burnout often occurs when youth are not able to reach the goals that
they are working towards and do not feel as though they are having an impact (Godden et al.,
2021). Programs can mediate this by having more short-term, measurable goals or using
SMARTIE goals to help youth to break larger goals into smaller steps and create achievable
goals. Incorporating a variety of evaluation methods, rather than only outcome evaluation, would
also help prevent burnout. Formative evaluation would help youth activists determine the
feasibility of the actions they organize (McKenzie et al., 2017). Process evaluation methods,
such as tracking the number of community events facilitated or the number of communications
created, would encourage youth to recognize the work that they have accomplished (McKenzie
et al., 2017). Since impact evaluations typically focus on the immediate, observable outcomes of
a program, incorporating these evaluation methods can also help youth activists acknowledge
and celebrate their achievements (McKenzie et al., 2017).

Being involved in activism can expose youth to more criticism on a larger scale than they
would otherwise experience, which could negatively affect their mental health. Accounting for
this risk through harm-reduction strategies and building in breaks is necessary to improve youth
well-being. For high-risk actions, such as protesting, this could look like having a pre-determined
meet-up point and having emergency numbers written down and accessible (Black Lives Matter,
n.d.). For lower-risk actions, like social media activism, this could include changing comment
permissions on your posts, filtering offensive words, and reporting posts or users (Rahman, n.d.).

Adults can support with harm-reduction strategies by planning and executing them and stepping in on behalf of youth in harmful situations.

Youth activists cite the importance of adult support to reduce burnout, "We need adults around us to support our actions and help us be effective" (Godden et al., 2021). Adult support could include administrative tasks, sharing their knowledge and experiences with youth, and connecting youth to sources of power (Watts & Flanagan, 2017). Adults could also support creating more systematic opportunities for activism to reduce the individual burden on youth activists to seek out opportunities or organize them if none are available. A school-based sociopolitical development program had positive outcomes, including increased efficacy and engagement, and was accessible to youth from marginalized backgrounds who had reduced access to similar programs (Hipolito-Delgado et al., 2022). Increased access to knowledge and skill-building about activism through systematic programs like this are especially needed in marginalized communities since these communities often have reduced access and greater barriers to organized action. Adults can also leverage their power on behalf of youth on a broader political level.

Policy Recommendations

At the policy level, adults can utilize their political power to advocate for youth by proposing, lobbying, and voting for candidates and policies that align with the goals of youth climate change activists. Adults can also make space for youth activists at the policy level through youth advisory boards or youth representatives on leadership boards (City of Oakland, n.d.).

To support the well-being of youth activists, it is necessary that policies are also written and implemented with the intention of addressing climate change on a national and global level. The recommendations informed by this scoping review are harm-reduction strategies with the

goal of improving the well-being of youth activists, but larger actions are needed to stop climate change. These actions can include returning land stewardship to Indigenous communities (Gauer et al., 2021), acknowledging the relationship between capitalism and climate change (Godden et al., 2021), and passing the Green New Deal (Sunrise Movement, 2022).

Research Recommendations	Intervention Recommendations	Policy Recommendations
Intentionally include and/or focus climate change activism research on Indigenous youth and other marginalized populations	Tailor activism efforts to local issues related to climate change	Create youth advisory boards, commissions, and representative roles on city councils, school boards, and other leadership boards
Increase the available literature on North American populations to account for specific contexts	Increase leadership roles in climate change activism for youth to increase empowerment	Advocate for youth and the policies that they support
Evaluate the efficacy of climate change activism-based interventions for youth	Focus on connection-building activities to increase a sense of community among youth activists	Write and implement policies that address climate change
Investigate the long-term mental health effects of climate change activism among youth	Create short-term, measurable goals and evaluation methods that focus on progress	Return land to Indigenous communities
	Account for risk by having risk reduction strategies in place	
	Create more accessible opportunities to learn about and participate in activism	

Implications and Discussion

       The available literature builds a foundation for recommendations that can sustain youth-driven climate change activism by improving youth well-being while also maximizing youth

motivation for engaging with activism. Across causes, youth activists have demonstrated the impact that they have within their local environments and in society at large, so maintaining youth motivation for climate change activism can help end climate change on a broader level. At the individual level, the literature suggests the positive effect climate change activism can have on youth experiencing eco-anxiety and other forms of environmental distress. These recommendations also directly address the known disadvantages of being an activist in order to sustain youth movements and prevent burnout among youth activists. Due to the disproportionate effect of climate change on Indigenous communities, communities of color, and other marginalized communities, these recommendations also explicitly highlight how they can benefit marginalized youth.

Though the scoping review resulted in evidence-based recommendations, there were gaps in the existing literature that had to be supplemented with literature focused on different populations and causes. More research is available on the impact of activism among adults than among youth and because youth have unique developmental factors that affect their mental health, translating research from another population may not account for the specific needs of youth activists. Recommendations were also derived from literature about youth activists in movements other than climate change, which can affect the efficacy of resulting interventions within the context of climate change activism. However, climate change is similar to other issues in that there are structural factors that influence individual experiences of it. Because of these structural factors, the recommendations for interventions in this review will only be limited in how much they can improve youth well-being.

This scoping review as well as further research about youth climate change activism point to the need for actions that address structural inequities to help alleviate youth and adult

experiences of eco-anxiety. The harm reduction strategies included in this review can also be applied to the burnout and other negative mental health effects that activists across movements experience. The connection-based intervention strategies would also contribute to overall community building, which can help improve mental health for communities as a whole.

Overall, the recommendations point to steps that are needed within research, programming, and policy in a general context. In regards to climate change as well as other areas of research, it is necessary to have increased inclusion of marginalized communities. Many health issues impact marginalized communities more intensely than the general population, but these communities are not equitably represented in research. Similarly, interventions need to explicitly focus on marginalized communities to address health disparities. On a policy level, greater inclusion of youth voices is necessary to empower youth and to work towards solutions that benefit them.

Conclusion

For youth experiencing negative mental health impacts of climate change, activism can be a coping method since it is a way to connect to others, contribute to solutions for climate change, and empower themselves. Though there are drawbacks to activism such as increased stress and burnout, understanding what motivates youth to take action and applying this knowledge to interventions and policy changes can help mitigate these consequences. In addition to direct experience with climate change, being a part of a communal support system is an influential factor for youth to engage with activism. Facilitating connection and centering activism on local issues will help maximize a sense of community. Youth activists, especially those from marginalized communities, often face burnout, but it can be mitigated by intentional and thoughtful support from adults, setting smaller goals, and more accessible activism opportunities.

References

Arksey, H and O'Malley, L. (2005). Scoping studies: towards a methodological

framework. International Journal of Social Research Methodology. 8(1), 19-32.

https://doi.org/10.1080/1364557032000119616

Ballard, P. & Ozer, E.J. (2016). Implications of Youth Activism for Health and Well-

Being. In J.Conner & S.M. Rosen, *Contemporary Youth Activism: Advancing Social*

Justice in the United States. ABC-CLIO.

Buis, A. (2020, March 10). *How climate change may be impacting storms over Earth's*

tropical oceans. https://climate.nasa.gov/blog/2956/how-climate-change-may-be-

impacting-storms-over-earths-tropical-oceans/

City of Oakland (n.d.) *Oakland Youth Commission*. The City of Oakland.

https://www.oaklandca.gov/boards-commissions/youth-leadership-and-development

Coffey, Y., Bhullar, N., Durkin, J., Islam, M. S., & Usher, K. (2021). Understanding Eco-

anxiety: A Systematic Scoping Review of Current Literature and Identified Knowledge

Gaps. *The Journal of Climate Change and Health*.

https://doi.org/10.1016/j.joclim.2021.100047

Colquhoun, H.L., Levac, D., O'Brien, K.K., Perrier, L., Kaster, M., & Moher, D. (2014).

Scoping reviews: time for clarity in definition, methods, and reporting. Journal of

Clinical Epidemiology. 67 (12), 1291-1294.

https://doi.org/10.1016/j.jclinepi.2014.03.013

Cox, R. S., Hill, T. T., Plush, T., Heykoop, C., & Tremblay, C. (2019). More than a checkbox: engaging youth in disaster risk reduction and resilience in Canada. Natural Hazards, 98(1), 213-227. https://doi.org/10.1007/s11069-018-3509-3

Earnshaw, V. A., Rosenthal, L., & Lang, S. M. (2016). Stigma, activism, and well-being among people living with HIV. AIDS care, 28(6), 717–721. https://doi.org/10.1080/09540121.2015.1124978

Flanagan, C., & Levine, P. (2010). Civic engagement and the transition to adulthood. The Future of children, 20(1), 159–179. https://doi.org/10.1353/foc.0.0043

Frost, D. M., Fine, M., Torre, M. E., & Cabana, A. (2019). Minority Stress, Activism, and Health in the Context of Economic Precarity: Results from a National Participatory Action Survey of Lesbian, Gay, Bisexual, Transgender, Queer, and Gender Non-Conforming Youth. American journal of community psychology, 63(3-4), 511–526. https://doi.org/10.1002/ajcp.12326

Gauer, V.H., Schaepe, D.M., & Welch, J.R. (2021) Supporting Indigenous adaption in a changing climate: Insights from the Stó:lō Research and Resource Management Centre (British Columbia) and the Fort Apache Heritage Foundation (Arizona). Elementa: Science of the Anthropocene. 9(1), 00164. https://doi.org/10.1525/elementa.2020.00164

Godden, N.J., Farrant, B.M., Farrant, J.Y., Heyink, E., Collins, E.C., Burgemeister, B., Tabeshfar, M., Barrow, J., West, M., Kieft, J., Rothwell, M., Leviston, Z., Bailey, S., Blaise, M., & Cooper, T. (2021). Climate change, activism, and supporting the mental health of children and young people: Perspectives from Western Australia. Journal of Pediatrics and Child Health. 57 (11), 1756-64. https://doi.org/10.1111/jpc.15649

Gutirrez-Bucheli, L., Reid, A., & Kidman, G. (2022). Scoping reviews: Their

development and application in environmental and sustainability education research,

Environmental Education Research, 28:5, 645-673, DOI:

10.1080/13504622.2022.2047896

Hickman, Caroline.(2021, September 19). Study Shows Young People Have A Lot Of

Anxiety Around Climate Change. *NPR Weekend Edition.*

https://www.npr.org/2021/09/19/1038681730/study-shows-young-people-have-a-lot-of-

anxiety-around-climate-change

Hipolito-Delgado, C.P., Stickney, D., Zion, S., & Kirshner, B. (2022) Transformative

Student Voice for Sociopolitical Development: Developing Youth of Color as Political

Actors. Journal of Research on Adolescence. https://doi.org/10.1111/jora.12753

Hope, E.C., Gugwor, R., Riddick, K.N., &Pender, K.N. (2019). Engaged Against the

Machine: Institutional and Cultural Racial Discrimination and Racial Identity as

Predictors of Activism Orientation among Black Youth. American Journal of Community

Psychology. 63 (1-2), 61-72. https://doi.org/10.1002/ajcp.12303

Hope, E. C., Cryer-Coupet, Q. R., & Stokes, M. N. (2020). Race-related stress, racial

identity, and activism among young Black men: A person-centered approach.

Developmental Psychology, 56(8), 1484–1495. https://doi.org/10.1037/dev0000836

Kaplan, S., & Guskin, E. (2019, September 16,). Most American teens are frightened by

climate change, poll finds, and about 1 in 4 are taking action. *Washington Post*

https://www.washingtonpost.com/science/most-american-teens-are-frightened-by-

climate-change-poll-finds-and-about-1-in-4-are-taking-action/2019/09/15/1936da1c-

d639-11e9-9610-fb56c5522e1c_story.html

Lardier, Jr., D.T. (2018). An examination of ethnic identity as a mediator of the effects of

community participation and neighborhood sense of community on psychological

empowerment among urban youth of color. Journal of Community Psychology. 46 (5),

551-6. https://doi.org/10.1002/jcop.21958

Madrigal, D., Claustro, M., Wong, M., Bejarano, E., Olmedo, L., & English, P. (2020).

Developing Youth Environmental Health Literacy and Civic Leadership through

Community Air Monitoring in Imperial County, California. International journal of

environmental research and public health, 17(5), 1537.

https://doi.org/10.3390/ijerph17051537

McKenzie, J.F., Neiger, B.L., & Thackeray, R. (2017). Planning, Implementing, and

Evauating Health Promotion Programs: A Primer (7th). Pearson.

Patnaik, A., Son, J., Feng, A. & Ade, C. (2020). Racial Disparities and Climate Change.

PSCI. https://psci.princeton.edu/tips/2020/8/15/racial-disparities-and-climate-change

Black Lives Matter. (n.d.) *Protest Safety Guide*. Black Lives Matter Seattle King County.

http://blacklivesseattle.org/protest-safety-guide/

Rahman, R.A. (n.d.) *Safe and Strong: An LGBTQIA+ guide to Facebook and Instagram*.

The Queer Muslim Project.

https://drive.google.com/file/d/12hTiT9SJcNYyTgJAUgVBTjHmXzQUc2hx/view

Riemer, M., Lynes, J., & Hickman, G. (2013). A model for developing and assessing

youth-based environmental engagement programmes. Environmental Education

Research. 552-74. https://doi.org/10.1080/13504622.2013.812721

Simons-Morte, B.G., McLeroy, K.R., & Wendel, M.L. (2012). Behvior Theory in Health

Promotion Practice and Research. Jones & Bartlett Learning.

Sunrise Movement (2022). *Our Plan For The Future*. The Sunrise Movement.

https://www.sunrisemovement.org/green-new-deal/

Van Nieuwenhuizen, A., Hudson, K., Chen, X., & Hwong, A.R. (2021). The effects of

climate change on child and adolescent mental health: Clinical considerations. Current

Psychiatry Reports, 23(88). https://link.springer.com/article/10.1007/s11920-021-01296-

y

Wallis, H. & Loy, L.S. (2021). What drives pro-environmental activism of young people?

A survey study on the Fridays For Future movement. Journal of Environmental

Psychology. 74, 101581. https://doi.org/10.1016/j.jenvp.2021.101581

Watts, R.J. &Flanagan, C. (2007). Pushing the Envelope on Youth Civic Engagement : A

Developmental and Liberation Psychology Perspective. Journal of Community

Psychology. 35(6), 779-792.

Wray-Lake, L., & Abrams, L.S. (2020). Pathways to civic engagement among urban

youth of color. Monographs of the Society for Research in Child Development, 85 (2).

https://doi.org/10.1111/mono.12415

Wray-Lake, L., Shubert, J., Starr, L.L., & Starr, L.R. (2017). Examining associations

between civic engagement and depressive symptoms from adolescence to young

adulthood in a national U.S. sample. Applied Developmental Science. 23 (2), 119-131.

https://doi.org/10.1080/10888691.2017.1326825

Appendices

Appendix A

Arksey and O'Malley's (2005) steps for a scoping review

	Steps
	Steps
1	Identify the research questions: what domain needs to be explored?
2	Find the relevant studies, through the usual means: electronic databases, reference lists (ancestor searching), websites of organizations, conference proceedings, etc.
3	Select the studies that are relevant to the question(s)
4	Chart the data, i.e. the information on and from the relevant studies
5	Collate, summarize and report the results

Appendix B

Sample Search Strategy for Fusion: Indigenous or Native or Aboriginal or Indians or First
Nations AND
Activism AND Youth

Appendix C

Research Recommendations	Intervention Recommendations	Policy Recommendations
Intentionally include and/or focus climate change activism research on Indigenous youth and other marginalized populations	Tailor activism efforts to local issues related to climate change	Create youth advisory boards, commissions, and representative roles on city councils, school boards, and other leadership boards
Increase the available literature on North American populations to account for	Increase leadership roles in climate change activism for youth to increase empowerment	Advocate for youth and the policies that they support

specific contexts		
Evaluate the efficacy of climate change activism-based interventions for youth	Focus on connection-building activities to increase a sense of community among youth activists	Write and implement policies that address climate change
Investigate the long-term mental health effects of climate change activism among youth	Create short-term, measurable goals and evaluation methods that focus on progress	Return land to Indigenous communities
	Account for risk by having risk reduction strategies in place	
	Create more accessible opportunities to learn about and participate in activism	

Appendix D

Key Terms Table

Terms	Definitions
Eco-Anxiety	Chronic fear of environmental doom or any mental distress or anxiety associated with worsening environmental conditions (Coffey et al., 2021)
Scoping Review	Research method that synthesizes available knowledge across disciplines to explore concepts and questions (Colquhoun et al., 2014)
Activism	"the organized efforts of groups of young peopl to address the root causes of problems in their local, national, and global communities" (Balla & Ozer, 2016)
Social-Ecological model (SEM)	A model based on the idea that a person's behavior is influenced and influences others on multiple levels of influence (McKenzie et al., 2017)

High-risk Activism	Actions that can result in harm (Hope et al., 2019)
Low-Risk Activism	Relatively safe actions (Hope et al., 2019)
Sense of Community (SOC)	A person's sense of belonging to a community and the confidence that their community will support them (Lardier, 2018)
Racial Centrality	How important a person's race is to themself, ca factor into youths' motivations to be active (Ho et al., 2020)
Minority Stress	The disproportionate amount of stress minority communities experience dues to societal inequities and stigma (Frost et al., 2019)
NB	Non-Binary
GNC	Gender Non-Conforming
Cognitive Empowerment	The knowledge of skills, abilities, and resources needed to be active (Wray-Lake & Abrams, 202
Emotional Empowerment	A person's confidence in being able to make a positive change or contribution to the world around them, or emotional empowerment (Wray Lake & Abrams, 2020)
Relational Empowerment	The belief in a community of people to make systematic change (Wray-Lake & Abrams, 202(
Ethnic Identity	An individual's feeling of belongingness to thei ethnic group, can help increase youth empowerment and connections to their community (Lardier, 2018)
Harm Reduction	Strategies and ideas with the intention of reduci the negative consequences of harm (Adapted fr the National Harm Reduction Coalition)
SMARTIE Goals	Strategic, Measurable, Ambitious, Realistic, Time-bound, Inclusive, Equitable Goals