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The Global Anxiety Crisis in Teenagers and a Proposed School-Based Preventative Intervention
Plan Focusing on Building Resilience in Children

By *Lia Darling*

Spring 2023

SIT: Global Health and Development Policy

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Abstract

The impacts of the COVID-19 pandemic and climate change have significantly influenced teenagers, creating a global anxiety crisis. This paper discusses why and how the pandemic and climate crisis increased anxiety in teenagers and the ways that prevent anxiety disorders like building resilience in children. While there is much literature on the negative effects on mental well-being, few propose solutions. This paper discusses the urgent need for preventative interventions to decrease the risk of developing an anxiety disorder along with proposing a framework for a school-based intervention focusing on building resilience skills in children. The paper used a mix method approach as it used data gathered through quantitative and qualitative research methods. The study includes information collected through interviews and through the analysis of peer-reviewed research journals found using Google Scholar, ScienceDirect, and PubMed. The findings highlight the importance of building resilience skills in children along with examples of how caregivers, communities, and the outdoors can promote and teach them. These strategies were then combined with ideas from the Inner Development Goals framework to create an idea of a school-based preventative intervention. This intervention hopes to decrease anxiety disorders in teenagers by teaching resilience skills and increasing mental well-being in children.

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the pandemic and climate crisis has impacted youth was very useful and I appreciate you answering my questions.

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Table of Contents

Introduction.....	1
Research Methodology.....	3
Literature Review.....	5
Analysis.....	8
The Problem: Increase of Anxiety Disorders in Youth.....	8
Impact of the COVID-19 Pandemic.....	8
Generalized Anxiety Disorder.....	8
Social Anxiety Disorder.....	9
Impact of School Closures.....	10
Impact of Media.....	11
Impact on Young Women and Girls.....	13
Resilience.....	13
Impact of the Climate Crisis.....	14
Climate Anxiety.....	15
Impact on Young Women and Girls.....	16
Resilience.....	17
The Solution: How to Prevent Anxiety in Teenagers	19
Caregiving.....	20
Community.....	22
The Outdoors.....	23
Proposed School-Based Preventative Intervention.....	24
Recommendations for Further Study.....	28
Conclusion.....	29
Abbreviation List.....	30
Bibliography	31

Introduction

In recent years, the world has witnessed a growing trend in the prevalence of anxiety disorders among teenagers creating a global health crisis. Anxiety disorders can be detrimental to the physical and mental well-being of everyone, but especially teenagers as they are in a critical stage of development. Anxiety disorders can cause excessive worry, fear, and nervousness, making it challenging for individuals to function in their everyday lives. Anxiety can also lead to poor academic and work performance, emotional distress, social isolation, and even physical health problems like headaches and stomachaches. In severe cases, anxiety can lead to depression and suicidal thoughts. This not only negatively impacts the individual but also the world as productivity at work decreases resulting in lost time and revenue for their employers and create an increase in healthcare demand putting a strain on healthcare resources and professionals resulting in longer wait times and reduced access to care for other patients. This is a global health crisis that urgently needs to be addressed and prevented for the health of teenagers and the world.

There are two current issues that have increased anxiety disorders in teenagers: the COVID-19 pandemic and the climate crisis. The pandemic forced teenagers to isolate at home preventing them from socializing with friends, disrupting their routines, making it more challenging to focus on schoolwork, creating worry about family finances, increasing uncertainty pertaining to the future and health of oneself and loved ones, and increasing constant exposure to social media and the news. All these impacts increase worry and anxiety and impact teenagers' mental well-being. The climate crisis has also had a negative impact on teenagers as they are constantly hearing about or experiencing firsthand devastating natural disasters due to climate change along with disappointment and anger towards governments and people in power who are

not acting. There are significant health consequences due to the pandemic and climate change that have long term impacts on teenagers.

There needs to be support from families, communities, and schools to help teenagers who are struggling with anxiety. There also needs to be interventions that work to decrease the risk of teenagers developing anxiety disorders. A prevention strategy includes building resilience skills in children so that when they are faced with adversity, they can cope well and grow from it instead of suffering. Resilience skills include those that increase connections with others, problem solving, communication, self-confidence, emotion regulation, finding purpose and meaning, and being able to take care of oneself. These skills can be promoted through family, communities, and the outdoors. Along with discussing the anxiety crisis in teenagers and how to build resilience in children to prevent future anxiety disorders, this study also proposes a school-based preventative intervention that focuses on building resilience and promoting well-being in children.

Research Methodology

This study explores the global anxiety crisis in youth with the focus on COVID-19 pandemic and the climate crisis. It then discusses the ways to build resilience including through caregivers, communities, and the outdoors. In the end, the study proposes a preventative school-based intervention to decrease the risk of developing an anxiety disorder.

The present study used a blend of qualitative data, interviews, and quantitative data, statistics, to gain the most insight on the topic. The primary sources used were four in-person interviews in Switzerland. One interview was found through a Global Mental Health lecture at the School of International Training. Two interviews were found using networking skills of the researcher's homestay family. The last interview was found through online research. The study also used secondary sources to collect data including academic peer reviewed sources and journal articles. These sources were found using Google Scholar, ScienceDirect, and PubMed.

Reaching out to people for interviews including people who wrote academic and scientific articles, people who spoke at conferences that pertained to the topic, professors of psychology at universities, grad students who were doing their doctoral thesis on the topic of this paper, teachers and counselors at local secondary schools, and people who worked in nature preservation for the well-being of the planet and humans. Some responded that they were busy, and many did not respond at all. Luckily, Annick Wager responded that she could take time to be interviewed and share her knowledge on how connecting with oneself, others, and nature can benefit the world.

The first interview was done at La Rochette which is a camp in Longirod, at the foothills of the Jura mountains in Switzerland. The interview was done with Evelyne who is a primary school teacher at a school in Geneva and accompanied the kids at the camp for the week. While

at the camp, observations of the activities and children were also done with consent of the teachers. The second interview was done with Dr. Etyan who is a trained psychiatrist and psychotherapist and works as a professor of medicine at the University of Geneva. The third interview was with Annick Wager who is a group facilitator for the Work that Reconnects Network. She gave insight into solutions for the mental health crisis along with ways to bring back humanity into the world. The last interview was with Morgan who is 21 and plans to study psychology. Her interview was helpful to gain opinions and first-hand experience with how the pandemic and climate crisis has impacted young people.

For each interview research ethics were put in place. The researcher submitted a human subjects review to the International Review Board and got approved. Before each interview, the researcher explained the research, got consent to use the interviewees name in the paper, and explained how the information during the interview was going to be used. A difficulty that was encountered included a low response rate of interview request emails which led to a small sample size of interviewees. This can create a limitation of the research as only a few voices were collected, leaving out important people and their expertise including those that work in schools for younger kids like teachers and counselors and psychologists that work with teenagers.

Literature Review

This study evaluates how building resilience in children can help decrease the risk of developing an anxiety disorder later in life. Currently, there is a global anxiety crisis in teenagers, and it will continue to get worse unless it is addressed by families, communities, schools, and governments. The pandemic and the climate crisis have a direct link to the uptick of anxiety disorders and previous research has agreed. While there has been much research on the increase of anxiety disorders in teenagers, many focus heavily on the problem and not provide enough solutions with concrete reasons why those tactics would work. This study hopes to evaluate the problem while also explaining how exactly building resilience can increase well-being and propose a school-based preventative intervention in hopes to enable change and help teenagers in the future.

Throughout the literature, there is consistent evidence that the pandemic negatively impacted the well-being of youth. Racine (2021) conducted a meta-analysis including 80,879 youth globally to understand the prevalence of anxiety symptoms during COVID-19 and found that they have doubled when compared with pre-pandemic numbers. This finding also was found in another study from *The Lancet* which focused on 204 countries and territories and their findings found that the pandemic increased the prevalence of anxiety disorders (Santomauro et. Al 2021). Both studies also mentioned how females were affected more by the pandemic than males. Mesce (2022) gave insight on the impact of media on children during the pandemic focusing on social media and the news to cope. They found that the increase of media usage negatively impacted physical activity, eating habits, and sleep patterns which are essential to mental well-being but also found that there were some positives like being able to connect to others in a time of physical isolation (Mesce 2022). Most research on mental health and the

pandemic found negative overall effects but Killgore (2020) talked specifically on the psychological resilience during the lockdown measures which include findings that those who tended to get outside more often, exercised more, perceived more social support from family, friends, and significant others, slept better, and prayed more often had more psychological resilience.

There has also been recent and relevant research pertaining to the topic of mental health and the climate crisis. Hickman (2021) shed insight on climate anxiety in children and young people through surveying 10,000 children from 10 different countries and found that many were anxious about the future. Another resource published by the Partnership for Maternal, Newborn and Child Health through the World Health Organization contributed with information on adolescent well-being and the climate crisis finding that the climate crisis causes disempowerment, impacting agency, purpose, and resilience in adolescents. Along with talking about the negative mental well-being impacts that climate change has on youth, this article also has ways that teenagers have been resilient with turning anxiety into activism and action which can be beneficial for their well-being. Research, including an article by UN Women called “Explainer: how gender inequality and climate change are interconnected” and an article by The Office of the High Commissioner for Human Rights called “Climate change exacerbates violence against women and girls” contribute to research findings that show how young women and girls around the world are negatively impacted by the climate crisis and how that relates to the increase in anxiety symptoms.

Research in resilience is becoming more widespread within psychology to look at how people adapt to challenges and grow from them along with learning about the ways to build resilience to promote mental well-being in the future. Much of the research in resilience pertains

to those that experience adverse childhood experiences (ACEs) or those who already have a mental disorder but not much research has been conducted to investigate outcomes of resilience-based skill learning in children without mental disorders to see how their mental well-being is later in life. Even though there are not many research studies, there is literature that discuss ways to build resilience in children and how that positively impacts them later in life. The American Psychological Association has two pages, one called “Maximizing children’s resilience” and one called “Resilience Booster: Parent Tip Tool” that shares knowledge on ways to build resilience skills in children. Masten (2018) shares definitions of resilience, promotive and protective factors, and interventions including ones done in the family. Other research also focuses on promoting youth resilience by strengthening home environment along with adding more research on how to promote youth resilience in the school environment (Akwasi 2019). Taket (2013) also shares insight on family strategies to support and develop resilience in early childhood. All these articles help, which some are grey literature and others academic research papers, develop an understanding of ways to build resilience and how that impacts mental well-being.

The present study synthesizes and discusses literature pertaining to how the pandemic and climate crisis impacted youth anxiety and how building resilience in children can prevent anxiety disorders in the future. Through gathering previous studies and knowledge this study articulates the global health anxiety crisis and the need for urgent change. This study provides a new idea and framework of a school-based preventative intervention for children to combat the anxiety crisis in youth and work to create a happier and healthier world.

Analysis

The Problem: Increase of Anxiety Disorders in Youth

Impact of the COVID-19 Pandemic

The COVID-19 pandemic changed the lives of everyone, but especially teenagers who are in a fundamental stage of developmental. The teenage years are critical because it is during this time where physical, psychological, and social transitions happen. Teenagers can have more sophisticated friendships, explore romantic relationships, investigate what they like to do academically, connect in groups through sports teams or in the theater, and navigate building their independence and responsibility. It is crucial in this phase for family members, schools, teachers, and communities to support teenagers during this time and teach them skills to build their resilience, preventing the risk of developing a mental health disorder, like anxiety, in the future. Unfortunately, the pandemic ripped away needed time for teenagers to socialize and learn face-to-face while also creating a reliance on social media. The pandemic forced teenagers to be isolated at home in a safe or unsafe environment with limited or no access to friends and with a constant worry about getting COVID and/or infecting others with COVID.

Generalized Anxiety Disorder

Globally, the rates of clinically significant generalized anxiety symptoms in youth before the pandemic were around 11.6% (Racine et al., 2021). During the pandemic, the rates increased to 20.5% showing how the pandemic almost doubled the rates of anxiety symptoms (Racine et al., 2021). This is a significant finding as it shows how the pandemic directly relates to the mental well-being of youth around the world. The study also discussed the statistic that 1 in 5 young people are experiencing elevated anxiety symptoms (Racine et al., 2021). Generalized anxiety symptoms in youth include uncontrollable worry, fear, and hyperarousal (Racine et al.,

2021). These symptoms can be linked to how the pandemic caused teenagers to adapt with the increase of uncertainty, their routines changing, and the constant worry about the health of friends and family. Generalized anxiety disorders can disrupt everyday functions and put a damper on mental well-being which is why the statistic of 1 in 5 young people around the world is alarming and needs to be addressed.

Social Anxiety Disorder

Studies have also shown that the negative effects of the pandemic increased social anxiety in the general population (Kindred et al., 2023). Problematic social anxiety is characterized by intense anxiety in social interactions and is maintained through a reciprocal relationship between avoidance and fear (Kindred et al., 2023). One may think that because of social distancing measures put in place during the pandemic, that social anxiety symptoms would decrease because people were not interacting with others, however, that was not the case. Social anxiety is interesting because people who have it find social interactions stressful but are happier interacting with others than being alone (Kindred et al., 2023). The pandemic put a hold on social interactions which heightened social anxiety for many as they were not able to connect leading to a decrease of well-being. One treatment for social anxiety disorder includes exposure therapy where one is encouraged to put themselves in situations where they are fearful like talking to a stranger to overcome that fear. With the lockdown measures from the pandemic, people with social anxiety received positive reinforcement for avoiding the very situations that exposure therapy would encourage (Morrissette, 2021). Therefore, many did not expose themselves to social situations so challenging worries and working towards combating social fears was rare.

Impact of School Closures

Schools are vital in teenagers lives as they spend most of their time there learning and making connections with peers and teachers. A safe and encouraging school environment can help to build resilience and prevent the risk of developing an anxiety disorder. Unfortunately, the pandemic had a significant impact on schools as UNESCO announced that COVID-19 is the most severe disruption to global education in history (Santomauro et al., 2021). They estimated that 1.6 billion learners in over 190 countries were fully or partially out of school in 2020 (Santomauro et al., 2021). The decrease in instruction time influences the development of certain knowledge on educational subjects along with cognitive skills like memory, reading, and problem-solving and non-cognitive skills like teamwork, perseverance, and interpersonal skills. Another study found that 80% of teenagers rely on psychological services in the schools showing how they are a primary location for teenagers to get mental health support (Racine et al., 2021). Thus, when schools closed because of the pandemic, many teenagers lost their safe and supportive environment along with the services that the schools provided, disrupting practices of mental well-being, and increasing risk for developing an anxiety disorder.

Dr. Etyan, a professor of medicine at the University of Geneva, experienced the impact that school closures had on students and the professors. Their courses went on Zoom so students had difficulty asking questions and feeling like they had a position in the group. It was shocking to Dr. Etyan that when they were able to go back to in-person learning, his students did not know each other; he asked his students to relay information to someone who was running late, and they responded that they did not know her or even knew what she looked like. This is an example of how the pandemic disconnected people in schools, an important area for learning and cultivating relationships which is a protective measure against anxiety disorders.

Impact of Media

There are many studies that link the pandemic to an increased use of social media and with that, a rise in anxiety symptoms (Mesce et al., 2022). However, findings have also expressed how social media had a positive impact on young people but only depending on usage and monitoring by parents (Mesce et al., 2022). Social media is relatively new as Instagram launched in 2010 and Tik Tok in 2017. Navigating the social media world is challenging as it fosters issues of comparison and cyberbullying which can increase anxiety as it has a negative effect on self-image.

Many teenagers used social media to escape and cope from the stress of the pandemic but if this coping mechanism turned into an addiction, it did more harm than good as internet addiction correlates with the onset of psychiatric symptoms of ADHD, depression, and anxiety (Mesce et al., 2022). Dr. Etyan discusses that the mental health of teenagers suffered from a lack of contact from peers and tried to compensate with phones and apps because they were isolated. This increase of isolation and social media use during the pandemic intensified the risk of developing higher levels of anxiety and psychosomatic symptoms (Mesce et al., 2022). Also, some teenagers follow news accounts on their social media so if they were constantly connected to their phones, they were also bound to see, mostly negative, news stories. These stories included statistics on the rise of infections and deaths along with the economic crisis which caused stress, anxiety, and even panic attacks in teenagers (Mesce et al., 2022). With this in mind, it is essential to understand the correlation of social isolation and social media and the ways that it increases the risk for anxiety disorders to help teenagers and develop ways to prevent these negative impacts in the future.

The use of social media can impact teenagers' health, interpersonal relationships, concerns and opinions, and sleep (Mesce et al., 2022). Increased time spent on technology with short videos that only give instant gratification causes a decreased attention span, impairs the development of imaginative skills, creativity, and social skills along with the growth of language, attention, reading, and reasoning (Mesce et al., 2022). Increase use of technology also influences physical health including eating habits, exercise, and sleep which in turn impact mental health. A study found that during school closures, school children gained weight, decreased time exercising or practicing a sport, and suffered from sleep problems (Mesce et al., 2022). It is important to look holistically when talking about anxiety as physical well-being impacts mental well-being and vice versa.

Teenagers would stay up late scrolling on Instagram, Tik Tok, or other social media apps and lose track of time, disturbing their sleep cycles. Sleep is very important for physical and mental health, especially for teenagers who are in an essential part of development. Sleep allows the brain to rest and recharge along with helping to consolidate memories and aid with emotion regulation which in turn is a preventative factor against anxiety. Getting enough sleep and quality of the sleep is also important for managing new kinds of social and emotional challenges which can help to decrease the risk of anxiety (Punamaki et al., 2022). Spending more time laying on a bed or couch on a phone or computer takes time away from exercising and spending time outside. Exercise is important for mental and physical health as it increases brain-derived neurotrophic factor (BCNF) which has been linked to decreases in stress induced anxiety and depressive symptoms (Anderson et al., 2013). Exercise also helps with neurogenesis, the process of creating new neurons in the brain, particularly in the hippocampus and has been shown to help treat anxiety and depression (Anderson et al., 2013). Spending time outside is also good for

health as it decreases anxiety symptoms and makes you calmer. Studies have shown that nature-based recreation improves affect, cognition, restoration, well-being, and decreases anxiety and depression symptoms (Lacket et al., 2021). It is important to understand the connection of how the pandemic increased technology while negatively impacting sleep, exercise, and time spent outdoors which are proven to be preventative factors against anxiety disorders.

Impact on Young Women and Girls

Research has found strong associations between gender and anxiety globally from the pandemic with females experiencing more stress, anxiety, and depression overall (Shah, 2020). It was discussed that biological susceptibility, lower baseline self-esteem, a higher likelihood of having experienced interpersonal violence, and exposure to stress associated with gender inequity may all be contributing factors to the increase in anxiety symptoms in females (Racine et al., 2021). Females are more likely to be affected by the social and economic consequences of the pandemic (Santomauro et al., 2021). The burden of taking care of household responsibilities due to school closures or sick family members are more likely to fall on women (Santomauro et al., 2021). Women are more likely to be financially disadvantaged during the pandemic because they receive lower salaries, have less savings, and have less secure employment than their male counterparts (Santomauro et al., 2021). They are more likely to be victims of domestic violence and with lockdown orders, this violence increased (Santomauro et al., 2021). These statistics show how treatment and preventative programs need to be knowledgeable on heightened anxiety effects particularly on young women and girls.

Resilience

In Switzerland, Dr. Etyan works with people that have severe mental disorders. He found that the pandemic had a paradoxical effect on his patients where instead of coping poorly which

many did during the pandemic, they coped well. He suspected that because his patients have severe mental disorders and are under severe stress, they were able to bring out some capacities that they did not expect. They coped well and were able to help the team with chores like cleaning the door handles. While much of the research on the pandemic focuses on the increased anxiety and mental health problems that youth faced, there are studies that show the resilience that some teenagers, and especially kids, had during the pandemic. Those who spent time outside, exercised, had a greater perception of social support, got quality sleep, and prayed more often showed to have more resilience during the pandemic and decreased their risk of poor mental health (Killgore et al., 2020). This shows how resilience can be built through practicing skills and a key factor in positive psychological outcomes.

Impact of the Climate Crisis

Teenagers are growing up in a world where the climate crisis is affecting them directly: physically and mentally. The physical harm to teenagers from the climate crisis includes natural disasters like floods, storms, earthquakes, wildfires, and droughts. The mental harm includes anxiety and depression caused by worrying about the state of the world and traumatic events like natural disasters. The inaction of governments around the world to mitigate climate change could be viewed as a failure of human rights as it leads to moral injury including physiological distress.

Globally, 59% of young people are very or extremely worried while 84% were at least moderately worried about climate change (Hickman et al., 2021). This is a significant amount of people who are worried about climate change which shows how important it is to address it directly while also providing support systems to teenagers. More than 50% of young people reported that they felt sad, anxious, angry, powerless, helpless, and guilty and more than 45% said that their emotions towards the climate crisis negatively affects their daily life and

functioning (Hickman et al., 2021). 75% believe that the future is frightening and 83% believe that people have failed to protect the planet (Hickman et al., 2021). Governments need to be aware of the mental distress teenagers are experiencing and validate their feelings through acting on climate change and providing support.

The climate crisis poses a risk to physical harm including increased risk of injury from disasters, lung disease from air pollution, infectious diseases from the degradation of habitats, and poor nutrition from use of fertilizers and pesticides in agriculture. Climate change can also harm mental health of children through disrupting their connectedness with family, friends, and community. From direct exposure of weather events or indirectly through the news, teenagers' mental health is threatened causing feelings of disempowerment, impacting their agency, purpose, and resilience (McGushin et al., 2021).

Climate Anxiety

Climate anxiety is described as distress relating to the climate and ecological crisis (Hickman et al., 2021). It is explained as a practical anxiety because even though it is distressing, it is rational and therefore not a mental illness (Hickman et al., 2021). However, anxiety can become intense and overwhelming because of the complexity of the crisis. Some emotions that those with climate anxiety can experience include worry, fear, anger, grief, despair, guilt, shame, and even hope. UNICEF reported in 2021 that one billion children are at extremely high risk of developing a disease from climate change (Hickman et al., 2021). This report can cause distress in children and teenagers as they become worried for their own health, their friends' health, and the health of a baby if they want to have one in the future. In addition, for Morgan, a 21-year-old who wants to study Psychology, believes that the climate crisis has increased levels of anxiety as

there are more feelings of insecurity. These feelings of insecurity can cause worry and increase the risk of anxiety.

Climate change has negatively impacted youth around the world and the stress-vulnerability models of health can be a way to understand it. This model is a tool to help explain how and why mental disorders develop and focuses on how chronic stress at a young age can have long lasting effects on mental health and increases the risk of developing a mental disorder like anxiety or depression (Hickman et al., 2021). Being stressed about the state the world can lead to climate anxiety. Natural disasters from climate change directly impacts people through destruction and trauma along with indirect impacts including limited personal and public resources and disrupting the functioning of a community (Hickman et al., 2021). For teenagers specifically, they usually experience confusion, betrayal, and abandonment as well because of the perception that adults have not done anything towards saving the planet (Hickman et al., 2021). Many teenagers look at the future and are not optimistic; they are sad and angry that people have failed to take care of the planet, they are worried about their future and believe that they will not be able to access the same opportunities as their parents, and they are unsure whether they want to bring children into the world (Hickman et al., 2021).

Impact on Young Women and Girls

Young women and girls are more likely to experience climate anxiety as they are more likely to experience the harmful effects of climate change than men around the world. Climate change and gender inequality are interconnected. Globally, women tend to depend more on natural resources but have less access to them (UN Women, 2022). Women usually are the ones responsible for getting food, water, and fuel for their families but with the climate crisis those activities are getting more challenging as number are growing in floods which can contaminate

water sources and droughts which can limit water sources. In low- and middle-income countries, women tend to work in the agricultural sector, but climate change is disrupting the health of that employment, hurting women financially (UN Women, 2022). Girls tend to drop out of school to help their mothers work in the fields making sure they have money to buy food and other essentials which can impact their physical and mental health as this is an essential developmental stage where school is critical. Climate change also impact the health of pregnant women as extreme heat due to climate change increases incidence of stillbirth along with increasing the spread of vector-borne diseases such as malaria, dengue fever, and Zika which are linked to worse maternal and neonatal outcomes (UN Women, 2022). It is also found that around 80% of people who are displaced by climate change are women (OHCHR, 2022). When women are displaced, this can lead to an increased risk of violence, including sexual violence. These negative impacts increase the risk for anxiety specifically for women. When climate change disproportionately impacts women, that tends to increase anxiety as their physical, financial, and mental health are at risk.

Resilience

When it comes to climate anxiety, activism is a way to combat it and build resilience. Putting emphasis on creating change and helping the planet can help oneself and the planet. Annick Wagner from the Nature that Reconnects Network shares her insight on how her work can decrease climate anxiety. The goals of Work that reconnects are to help “people discover and experience their innate connections with each other and the self-healing powers of the web of life, transforming despair and overwhelm into inspired, collaborative action” (Work that Reconnects, 2023). This network spreads across many countries and it was created to connect people with themselves, each other, and nature to bring back humanity and save the planet. There

are people that get trained to facilitate workshops to foster humanity and hope for the future and Annick is one of them.

Annick explains how there are four phases within Work that Reconnects: gratitude, honoring our pain for the world, seeing with new/ancient eyes, and moving forward. The first phase focuses on pinpointing what you are grateful for and opening the door of inner joy, being alive, and feeling the love of family and friends. This is an important step in the resilience model as it connects people to what or who is a resource for them. Honoring our pain is the second phase where you open the door to love but along with it, pain. This is the phase where you express your pain which is key to the process of transformation. The third phase, seeing with new ancient eyes, is when one evaluates how the pain and concerns are not so huge when you step back and look at the planet's life. At this point one recognizes themselves with more humility. The last phase is moving forward where one comes back to themselves and works with others to talk about next steps. However, these changes depend on the people; some come away from the workshop with more ideas about how they can take care of themselves, others come away with wanting to do more for the planet. Through discussing the work that Annick does, it highlights how these phases directly relate to resilience skills as they include understanding of oneself, making connections, and finding purpose and meaning.

The work of Work that Reconnects is a practical methodology part of the big ecopsychology domain; it connects human psychology and the environment to heal both. Annick explains that “the beauty of being human has always been the same; it’s about being with others, laughing with others, and admiring a bird on a tree. This is where we feel human. And we might have forgotten it a bit in the last 40 years.” Annick explains how us humans have disconnected ourselves to the environment and act like we are an external part of it. Work the Reconnects

reflects the importance of connecting again with the self and the environment. Through connecting with oneself, you also connect to your own humanity and can connect with others. This creates positive mental well-being which can be directed towards fighting for the rights of our planet along with decreasing stress and risk for developing anxiety disorders.

The Solution: How to Prevent Anxiety in Teenagers

Building Resilience

Life can be challenging especially for teenagers living through the pandemic and the climate crisis. Resilience can be a key factor for teenagers to lower their risk of poor mental well-being and developing anxiety disorders. Teenagers are at a critical stage of their biological, emotional, and social development so it is critical to prioritize their health. There are five areas of well-being for teenagers which include good health and optimum nutrition; connectedness; positive values and contribution to society; safety and a positive environment; learning, competence, education, skills, and employability; and agency and resilience (McGushin et al., 2021). These areas can all be addressed in the three ways to build resilience in teens that this paper discusses; positive relationships with family, community, and the outdoors as they all can support and teach coping skills to build resilience. Similarly to when we build structures to prevent increased erosion, communities need to build structures to prevent poor mental well-being like providing strategies to build psychological resilience, preparing young people with support and strength to face the climate threats that are in their future along with other obstacles that life throws their way.

Building resilience in kids can be a way to prevent mental health disorders, like anxiety, to manifest in teenagers. Resilience is “the process and outcome of successfully adapting to difficult or challenging life experiences, especially through mental, emotional, and behavioral

flexibility and adjustment to external and internal demands” (American Psychological Association, 2023). Everyone will experience challenges in life from everyday hardships to traumatic events that can have long-lasting effects. These challenges in life are hard emotionally, physically, and mentally and to successfully adapt to these obstacles one needs resilience. People are not born with the “resilience trait”, but there are individual differences in personality or cognitive skills that can influence the ability to adapt to challenges and it can also be learned and built upon (Masten et al., 2018). Resilience is a complex topic as it can be dynamic and context-dependent meaning that there are many ways to develop resilience and strengthening it can depend on the environment that you are in. It is also important within resilience to discuss a key topic within psychology which is nature versus nurture which explains how one can be impacted by their biological makeup along with the environment that they grew up in and are currently in. This section of the paper will discuss the environmental impacts that influence resilience in teenagers ending with a proposed school-based preventative intervention focusing on building resilience skills in children to prevent the onset of anxiety disorders later in life. Key skills to building resilience include creating connections with others, problem solving, communication, self-confidence, emotion regulation, finding purpose and meaning, and being able to take care of yourself. These skills can be taught through caregiving, communities, and time spent in the outdoors.

Caregiving

Data has shown that caregiving quality is an important promoter and protector for child development and for teaching resiliency skills. Early childhood is an important developmental stage to develop resilience skills and caregivers are an essential part of that process. Creating a warm and nurturing relationship between the caregiver and child is an important factor in

developing resilience in the child (American Psychological Association, 2023). For resiliency skills, children can develop abilities in problem solving, self-control, emotion regulation, motivation to succeed, and self-efficacy which can be promoted through the help of external factors like positive relationships with caregivers (Weir, 2017). Other aspects of building resilience include safe and nurturing homes and supportive caregiver-child connections to develop resiliency skills like the development of self-identities, self-esteem, and self-efficacy (Twum-Antwi et al., 2020). In addition, self-regulation, independence, socio-emotional learning, and supportive relationships with adults are all key to helping children to develop resilience (Taket et al., 2014). A study found that children who experience maltreatment, harsh parenting, poverty, or food insecurity show poorer self-regulation but if they had caregivers who were warm, responsive, and sensitive this could buffer the effects of other stressors and help promote the development of self-regulation, a key factor in building resilience (American Psychological Association, 2017).

Another important aspect of building resilience in children, is to also construct it within the caregiver. When the caregiver is struggling, the child struggles but if the parent is resilient then the child can develop ways to be resilience as well. This shows how resilience skills are needed for people in every age group, however, if they are learned at a young age that can lower the risk of poor mental well-being in the future and, in turn, lower the risk in their own children.

Types of parenting can have a negative impact on children, for example, “helicopter parenting” or ‘hyper-parenting’ are ways that over manage their children’s lives to keep them safe but it can actually do more harm than good because the child later in life may not be able to regulate their emotions and face adversity (Harper, 2021). A suggestion for caregivers to nurture a supportive environment that encourages healthy risk taking and resilience skills include

teaching them the importance of connecting with peers, how to focus on something that they can control or can act on, self-care, nurturing a positive self-view, and ways to be flexible and accept change (American Psychological Association, 2017). The home environment can be influential for children as it can be a nurturing place to make mistakes, learn from them, and grow while understanding the skills needed to go through life and thrive.

Community

Having a supportive community is another key aspect to developing resilience in children. The school environment and local resources are two main ways that a community can help children develop skills to build their resilience. Having a child understand the resources that they have access to when they need help can assist them through life obstacles and grow because of it. Neighborhood social cohesion can be a way to prevent anxiety in adolescents and young adults (Breedvelt et al., 2022). When a community is connected, it can have many benefits to the inhabitants including fostering positive relationships, social support, the ability to enforce social norms, an increase in feelings of safety, and a higher level of trust which all play a role in the prevention of mental health problems like anxiety (Breedvelt et al., 2022). When discussing preventative measures to help children and teenagers with the global anxiety crisis, community involvement and cohesion is a great way to show them what resources are available to them along with feelings of connectedness which works to build resilience and helps them get through tough times.

Schools are also a critical part to the social and emotional well-being of children and teenagers. They have an important part of the community as their role is to create a safe and enjoyable environment for kids to thrive. Schools provide opportunities for kids to join groups like sports teams, choir, theater, and other activities. These groups can help kids form positive

networks with peers and adults which improves self-confidence, social skills, along with feeling a part of something bigger than themselves, reducing stress and risk for anxiety.

The Outdoors

Nature has a wonderful way of developing resilience in children which can decrease the likelihood of developing anxiety in the future. Six positive aspects that exposure and connection with nature can provide children are an increase of self-esteem, creativity, cognition, independence, well-being, and life satisfaction (Summers et al., 2019). These aspects directly relate to resilience as it increases positive self-image, promotes adaptability and flexibility through creativity, and builds coping strategies that encourage mental well-being so when faced with adversity they have internal resources to tap into. Research has found that people who walked in nature experienced less frustration and produced brain waves that were similar to those during meditation (Summers et al., 2019). Unfortunately, with the increase of urbanization, opportunities for children to play outside in nature has decreased which negatively impact their mental and physical health. Free play outside is important for a child's development as it builds skills like problem solving, social competence, safety skills, and creative thinking. Studies show that children who live near nature score low on behavioral conduct disorders, anxiety, and depression when related to children who live in more urban settings (Summers et al., 2019).

In addition, children ranked themselves higher on self-worth measures than those who live in less natural settings (Summers et al., 2019). When children that spend time in nature grow up to be teenagers, they are more likely to be appreciative of ecosystems and visualize themselves as a part of nature and dependent on the health of it which can be grounding and reduce stress (Summers et al., 2019). This outdoor exploration promotes children to be adventurous and risky which has positive impacts on self-confidence, self-esteem, and an

increases sense of identity (Summers et al., 2019). Exercising in nature can have many benefits including improving the management and reduction of stress which can also help decrease anxiety symptoms (Lawton et al., 2017). These studies emphasize the major impacts that outdoor exploration has on decreasing stress and anxiety along with building resilience skills for the mental well-being in the moment but also in the future.

In Switzerland, there are spring camps where students from the cities like Geneva take a week to go into the mountains and explore the outdoors. There is a camp named La Rochette located in Longirod where Evelyne, a teacher, shared her insights on the benefits of these camps on the kids. She discussed how these camps are an enriching and rewarding experience for the kids. She shared a story about how there was a kid who was usually very reserved and shy in the classroom but during this time at the camp, they came out of their shell and started laughing and playing with the other kids. It is not known if their actions will continue when they go back to their school in Geneva, but this story shows how being and playing in nature can improve self-confidence and encourage kids to be themselves and explore. Evelyne also explained how these camps can strengthen relationships between students but also between the students and teachers as they are seeing each other in a different environment. The students develop more trust in their teachers as they are not allowed to have phones and do not have access to see their parents in person. This trust and connection between the students and teachers promote mental health as they have another person to ask for help when they need it.

Proposed School-Based Preventative Intervention

With the knowledge about how caregiving, communities, and the outdoors can build resilience skills in children to prevent anxiety disorders in the future, this study created a

proposed intervention as a framework to enact change and promote mental well-beings. The school-based proposed intervention uses ideas from the Inner Development Goals, research on school-based interventions, and knowledge on the importance of nature on resilience.

The Inner Development Goals (IDG) were created to try to speed up the process of reaching the Sustainable Development Goals (SDG). The IDG framework hopes to combat the issue of the lack of inner capacity to deal with the increase of complex environment and challenges (IDG, 2023). The IDGs include 5 dimensions and 23 skills and qualities that are fundamental for everyone. This proposed intervention uses the IDGs not to reach the goals of the SDGs but to develop workshops for children to develop these skills in themselves. The five dimensions include being, thinking, relating, collaborating, and acting. Being includes skills that focus on the relationship to oneself including developing an inner compass, acting with integrity and authenticity, being open and curious, learning self-awareness, and being present. Thinking includes skills like critical thinking, complexity awareness, perspective skills, sense-making, and long-term orientation, and visioning. Relating focuses on appreciation of others and the world, connectedness, humility, and empathy and compassion. Collaborating emphasizes social skills including communication skills, co-creation skills, inclusive mindset and intercultural competence, trust, and mobilization skills. The last dimension is acting, and it includes courage, creativity, optimism, and perseverance. All these skills focus on individual development but also includes the importance of relating and connecting with others and the world to be resilient and act. The 23 skills within the IDG framework can be learned, built, and practiced and can start at a young age.

A safe and nurturing home environment is essential to developing resilience skills, but this intervention is proposed to be within the public school system as the government can do

more with changing public-school systems than home systems. Kids spend much of their time at school, so it is a great environment for an intervention to be placed. This intervention is to be put in place for public schools in grades K-12. Private schools are encouraged to implement this preventative intervention as well.

The intervention consists of a workshop that happens three times a week throughout the school year for kids focusing on building resilience skills. The program will last 23 weeks, each week focusing on developing a skill from the IDG framework. Each workshop is an hour long, with 40 minutes of activity and 20 minutes of meditation or forest walk. The activity will be held outside if weather permits because of the research supporting the relation between time spent in the outdoors and the decrease of stress and anxiety. Since this is an intervention for K-12, each workshop will have to be cultivated to the age of the students. The goal of the IDGs re to speed up the process of reaching the SDGs through cultivating well-being and empowering others because once you take care of yourself you will have the capacity to take care of others. The IDGs in this context will be used as a framework to develop workshops for kids to cultivate meaning and well-being in their own lives to decrease the risk of developing an anxiety disorder in the future.

Below is a short description of each phase of intervention which includes the skills that will be learned and activities that promote them.

Week 1-5: Being – Relationship to Self

Activities can include journaling, reflection, and mindfulness practices. By promoting self-awareness, students can better understand their emotions and needs, which can help them manage stress and anxiety. Activities will also be done to promote self-love and self-care to increase well-being.

Week 6-10: Thinking – Cognitive Skills

Activities can include workshops that teach students self-management skills like goal-setting, time-management, and stress-reduction techniques. These skills can help students become more resilient and better able to cope with challenges.

Week 11-14: Relating – Caring for Others and the World

Activities that can help promote social awareness include those that encourage empathy, perspective-taking, and understanding different cultures and backgrounds. By developing social awareness, students can build positive relationships and communicate effectively with others, which can reduce feelings of isolation and promote mental well-being.

Week 15-19: Collaboration – Social Skills

This phase focuses on relationship and teambuilding skills. Activities to foster connectivity with others include ones that focus on communication, conflict resolution, and collaboration skills. These skills can help students develop positive relationships with peers and adults, which can provide a sense of belonging and support.

Week 20-23: Acting – Enabling Change

Activities in this last phase focus on helping students develop responsible decision-making skills and through this, students can develop a sense of autonomy and agency contributing to mental well-being.

Recommendations for Further Study

The global anxiety crisis is one that has many causes and solutions which means that there are many ideas to further this research study. A large limitation to this study is that it failed to discuss in depth how there was an anxiety crisis before the pandemic and that does not connect to the climate crisis. Further research into the increase of anxiety disorders in teenagers excluding the impacts of the pandemic is needed to fully understand the whole crisis. Since this was a global look into a health issue, another idea to expand on this knowledge is to compare countries and their rates and prevalence of anxiety disorders and investigate the contributing factors on the similarities and differences. Another idea for further research is to examine the increase in gun violence, especially in the United States, and if that has increased anxiety in children as some fear for their life every day they walk into their classroom. While this study talked about the specific impact of the pandemic and climate crisis has on women, it would be interesting to talk about how indigenous people, LGBTIQ+ people, people with disabilities, people of color, migrants, and those that live in conflict and disaster-prone areas are impacted differently or similarly regarding the pandemic and climate crisis and anxiety disorders. More analysis of how the outdoors can build resilience can be a topic for further study as it can have significantly more positive impacts than what was stated in this paper. While this paper proposes a school-based intervention prevention program, more research needs to be done to create a more in-depth curriculum plan along with more research on strategies and activities that have been proven to be effective in building resilience skills in children.

Conclusion

Around the world, there has been an increase of anxiety disorders in teenagers creating a global health crisis. Anxiety disorders can be detrimental to the physical and mental well-being of teenagers as it causes excessive worry and makes it challenging to go about their everyday lives including social situations and academic performance in school. The pandemic and climate change has contributed to this crisis as lockdown and social distancing measures prevented people from socializing and natural disasters due to climate change increase worry about the future of the planet. Anxiety disorders not only impact the individual's health, but it also affects the world as productivity at work decreases negatively impacting the economy and the health care system as it puts more demand on services creating reduced access to care and quality time of care for patients. The health of teenagers and the world is at stake and needs to be addressed urgently.

Through the proposed school-based preventative intervention that focuses on building resilience and promoting well-being in children, there is hope for the well-being of future generations. By incorporating the Inner Development Goals into the school curriculum and school culture, schools can encourage the personal, social, and emotional development of students, which can lead to improved mental well-being and decrease the risk of anxiety. Resilience skills like learning how to connect with others, problem solve, communicate, build self-confidence, and regulate emotions all contribute to well-being and provide children with resources so when faced with adversity they can cope and grow. This intervention can work as a framework for schools to use to build a new generation of resilient kids, decreasing anxiety disorders in teenagers, improving the economy, the healthcare system, and the world.

Abbreviation List

IDG – Inner Development Goals

APA – American Psychological Association

SDG – Sustainable Development Goals

OHCHR – The Office of the High Commissioner for Human Rights

BCNF – brain-derived neurotrophic factor

UNICEF – United Nations Children’s Fund

WHO – World Health Organization

UNESCO – United Nations Educational, Scientific, and Cultural Organization

ADHD – attention deficit hyperactivity disorder

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