MIEH300 Persuasive Essay:

The Effects of Climate Change on Mental Health

Steven Golden

University of Maryland

College is a time full of learning, exploration, creativity, fun, but also a time full of stress. According to the National Alliance for Mental Illness, at least 1 in 5 young adults will experience a mental health condition during college (2016). Mental health conditions in college are more common than people think! At one point or another, it is inevitable that college students may experience overwhelming amounts of stress. Situational factors such as heavy workloads, internship requirements, and outside jobs along with behavioral habits such as a lack of sleep, exercise, and poor diet can all contribute to one's mental health. However, there is now an environmental crisis that is adding to an increase in mental health prevalence. An article from the Independent explains climate change has been directly linked to adverse mental health effects (Gregory, 2018). In the article, MIT researcher Nick Obradovich emphasizes that it is essential for countries to improve their mental healthcare services, so all people can have a better baseline of available mental healthcare. Environmental health has interconnected ties that extend past the well-being of the environment into political, social, and personal issues. For example, Gregory summarizes that the United Nation emphasizes the urgency to implement unprecedented policies to help society avoid the detrimental and uncontrollable effects of global warming (2018). It is going to be necessary to utilize the Precautionary principle in order to destigmatize mental health conditions and change our social structures to make mental health services more regulated, accessible, and affordable to ensure future social well-being.

Dr. Nick Obradovich and other researchers found that increasing exposure to more extreme weather, such as multiyear warming that will happen with climate change, has worsened mental health conditions. The study concluded increasing monthly temperatures from "25 °C and 30 °C to >30 °C increases the probability of mental health difficulties by 0.5% points, that 1°C of 5-year warming associates with a 2% point increase in the prevalence of mental health issues" (Obradovich 2018). Similar to Obradovich's results, a study from the US CDC study explains

that people reported increased stress, depression, or emotional fluctuations in months with temperatures higher than 30 degrees Celsius or more than 25 days of rainfall (Gregory, 2018). The outcomes for both of these studies are crucial to assess because they are accounting for general trends that society will (or already have) experience as a result of climate change. An increase in temperature and sever weather patterns like an increase in rainfall will increase the prevalence of mental health conditions, specifically stress, depression, and anxiety.

Naturally, more solemn and rainy weather can lead to a lack of sunlight and an increase in feelings of sadness and depression. The study conducted by the CDC highlights that the exposure to climate change related heat directly worsens mental health conditions and leads to an increase in suicide rates. Therefore, climate change is not just having an effect on mental health outcomes, but behavior changes too. Besides the extremity of suicide, all types of severe weather can also demotivate students to go to class or have social interactions because the weather is less pleasant to endure. For example, exposing students to more frequent, more intense, and longer climate related variations such as extreme heat exposure can directly affect a person's mental health (Kjellstrom, 2009). Extreme heat can make students aggravated, more prone to dehydration and heat stroke while walking to class. Inconsistent weather patterns like an 80-degree week in October, or a cold and snowy day in mid-November can cause variations in moods, but also induce stress and anxiety about getting to and from class or missing class.

Mental health conditions are already an alarming issue on many campuses without additional factors, but climate change is significantly increasing the risk of mental health prevalence among college students. The University of Maryland participated in the 2017 Association for University and College Counseling Center Directors survey, which found that ninety five percent of college counseling centers said the number of students with significant psychological problems is a growing concern on their campus. The 2017 AUCCCD survey concluded that "Anxiety is the top

presenting concern among college students (48.2 percent), followed by stress (39.1 percent) and depression (34.5 percent)" (LeViness et. al 2017). Although this is a growing concern, 43.8% of directors reported having a session limit, like the UMD counseling Center which only provides a maximum of 8 individual counseling session per 12-month period (Drl, 2018). This can result in inadequate psychological services that leave a health deficit for those that struggle with mental health problems.

Although mental health concerns are increasing with climate change, the Counseling Centers on Campuses may not be prepared for the mental health impacts of this environmental crisis. The AUCCCD also reported that around 66 percent of clients stated that counseling helped with their academic performance and helped them remain in school (LeViness et. al 2017). Since counseling services have been so beneficial to many students, it is essential to destigmatize social perceptions of mental health and expand the availability of resources, so students can seek the help they need without feeling ashamed, discriminated against, or excluded.

One way to combat a mental health crisis caused by climate changed would be through precautionary actions such as eliminating college counseling limits. A revolutionary solution for mental health issues at UMD would be to offer an unlimited amount of counseling sessions to all students. As previously stated, environmental health ins intertwined in many aspects of our lives, therefore this would involve policy change from the school, and a reallocation/increase of funds to the counseling center to increase availability and the number of counselors. Anticipatory action would also require healthcare restructuring to allow for insurances to cover more mental health needs at a cheaper cost for students, so they can utilize services that are available to them. This way, if there is still a limit among college counseling centers, students may be able to find other counselors in the area to seek help.

Space, such as a counseling center, is an important aspect of every individuals' life, whether that space is mental or tangible. Mental health is not just affected by psychological effects of unpredictable weather patterns but effects the well-being of society by physically destroying landscapes. As humans, we have a sense of belonging and solace derived from our connectedness to the land, therefore a disconnect caused by climate change may be detrimental to our mental health (Higginbotham et al. 2007). This can be especially true for college students that are involved in sports teams, outdoor clubs, or anyone who enjoys the outdoors (studying, hanging with friends, working out, volunteering). The severity of climate change has the potential to destroy physical space that provides so much positivity, engagement, and stress relief for many students.

Furthermore, Fritze and colleagues have emphasized that climate change will have significant mental space implications on the psychological distress and anxiety about the future (2018). Since college students are continuously thinking about their future, the global environmental threat that climate change imposes to any goals or dreams can lead to detrimental mental health issues of depression and anxiety for this generation. Students may realize that their career may go extinct because of climate change, or they may feel hopeless in their future because of the uncertainty that climate change proposes to many aspects of our lives. Will there be any marine biologists or environmental conservationists if there is no more wildlife or green space to protect? Will students be able to have children if there is a limited availability of food or medicine available? Will society have cars if we run out of fossil fuels and haven't found an alternative solution for energy? Such thoughts and realistic possibilities that can be caused by climate change can affect one's mental health, especially since most of these thoughts can be negative and immobilizing. Mental Health services need to become more widely available to

students, so they can utilize these resources before they begin to feel a disconnect between their lives and the environment.

NASA has provided undeniable evidence that there is a "95 percent probability that human activities over the past 50 years have warmed our planet", contributing to climate change (Climate change causes, 2018). However, the Trump Administration denies climate change altogether, which consequently means that humans could not experience any mental health effects from climate change. Donald Trump once tweeted saying "the concept of global warming was created by and for the Chinese in order to make U.S. manufacturing non-competitive." (2012). Executive support is crucial for preventative measures to cope with an increased mental health prevalence on campuses because the policies, programs, and services would benefit from federal support and funding. Federal government support would influence colleges to efficiently and effectively allocate funds to the mental health crisis. Furthermore, federal funding to state colleges would help schools expand their services, especially if they do not have the funding or use their money for other projects. Without precautionary principles that focus on preparing for an increase in collegiate mental health problems, students will experience mental health disparities with unimaginable outcomes.

Similar to Environmental Health Disparities, climate change will disproportionately affect vulnerable subgroups of the college population in terms of race, citizenship, socio-economic status, disabilities, preexisting health conditions, and job (Crimmins et. al 2017). It is crucial to account for the multiple identities that a college student has when assessing the outcomes of climate change, especially because of the diverse UMD population. Problems induced by climate change such as food environment will affect someone of a marginalized community first and more severely, than someone of more privilege. If a lower-socioeconomic status student is already struggling financially, an increase in food prices due to a lack of food availability

because of climate change can definitely onset mental health problems such as stress, depression or anxiety. Consequently, the same student who needs mental health services the most may not be able to afford counseling due to disparities such as insurance, access, or cost. Mental health services for all students, specifically more at-risk students, need to be more accessible in order for students to cope with the impacts of environmental health in different social, economic, and health areas.

Although certain sub-populations and individuals are more at risk for experiencing mental health issues from climate change, climate change can also affect the community as a whole. According to a report from the U.S. Global Change Research Program, there are major areas of concern about increased incidents of interpersonal aggression, violence, and crime, as well as greater social stability and less community cohesion (Balbus, 2018). It is important for UMD to preserve our community, sense of belonging, and social groups. An increase in climate change may potentially cause a dissociation between students, their campus, and their organizations. Losing a sense of community and social groups at UMD would be another factor that could lead to depression and isolation among students. In order to reduce this risk, a cohesive and empowering student environmental group would demonstrate the togetherness and collective action to combat climate change and the adverse health outcomes.

In an attempt to avoid unforeseen mental health outcomes, the student environmental group could pursue a couple of facets in order to address the issue. For one, they can advocate for an increase of mental health services for UMD students by collaborating with the Counseling Center and other mental-health oriented groups. The environmental group can also advocate and protest for our current administration to rejoin the Paris Climate Agreement, which is essential in a collaborative global effort in fighting climate change. By re-committing to this treaty, the United States would focus on reducing our greenhouse emissions to limit the global temperature

increase under 1.5 degrees C per year, which would reduce the impacts of climate change (Davenport et. al 2015). The environmental group could also influence other students to go green and join their club. Some sustainable encouragements could include using a reusable water bottle, reducing plastic use, turning off lights and water when not using them, recycling, composting, and using public transportation/walking/biking more often instead of driving! The environmental group can also have fun activities such as hikes, bike rides, and trips to national parks that would facilitate a sense of community while also demonstrating the value of our planet. By joining the group, students would not only combat communal dissociation, but also help spread awareness about environmental crisis of climate change because it is not just in the best interest of the planet but also in their own mental well-being!

Climate change is a prevalent environmental crisis that can directly and indirectly effect the UMD student population. As a society, we need to destigmatize mental health in order to advocate for and implement a change in the availability of mental health services on UMD's campus. Climate change has individual effects that lead to increase prevalence of anxiety, and depression; conditions that are already increasing among today's college students. In addition, the direct impact of climate change can place additional strain on vulnerable groups who are already at an increased risk for adverse events and negative mental health outcomes (Lang, 2015). The environmental climate change crisis does not just effect individuals, or subgroups of the population, but also the UMD community as a whole. After addressing all of the factors environmental health has on society, we can utilize the precautionary principle to take preventative measures in order to diminish the detrimental mental health effects caused by climate change. Environmental crises need to be seen through the lens of a mental health crisis because of the impact it has on the individual, social, and communal level.

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