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Climate Change and Mental Health: An Unlikely Duo

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"This is not a problem for future generations. This is our problem, right now." (Carleton in Safi, 2017). Mental Health, defined by The World Health Organization (WHO) as "a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully" (WHO, 2014), is a deeply emotive subject. Poorly understood, highly stigmatized, and frequently ignored by governments and international actors, this essay will argue that mental health should be considered as a critical component of discussions around climate change and human security. The essay will broadly be divided into three areas. The first, split into discussing the background and discussion of the problems, will analyse the core challenges, discussing some of the key challenges that need to be considered. These are most notably being exposed to extreme weather and forced migration as a result of the climate. The essay will then move on to discussing some of the existing policy in place, which will highlight just how little attention and resources are mobilized to this issue. With this in mind, the final section of the essay will make recommendations of ways in which to proceed in the future, highlighting the pressing nature of the topic, and making a case for the development of community level support and public-private partnerships.

Background

Mental Health

In order to fully comprehend this topic, it is important to first understand what is meant by mental, or psychological, ill-health. As with physical health, Mental Health includes a variety of different illnesses which vary in their severity, but can be broadly understood as "some combination of abnormal thoughts, emotions, behavior and relationships with others" (WHO, 2017a, no pagination). Mental health problems [1] are common; conditions such as depression so widespread and devastating to human lives that they have become the leading cause of disability around the world (WHO, 2017, no pagination). The problem is that psychological health is not given the consideration it needs, often argued as having a "neglected status as the poor relation of health" (Berry et al, 2010, p123). This is the case across all fields, it is either not given consideration at all by both national and international actors, or it is considered as a secondary issue – even within the field of health and international health. Despite the enormity of the topic, it is not being made a priority, however, as this essay will argue it is no longer possible to overlook. Whilst it is important to not catastrophise and attempt to clinically diagnose normal emotional and psychological reactions to extreme situations, it is critically important to begin to take the mental health repercussions of climate change and extreme weather seriously (Berry et al, 2010, p123). The following section will provide more information as to the theoretical debates.

Theoretical debates

Framing and approaching the issue theoretically is a difficult task, given the divisive nature of security studies. Security discourse is important and useful political tool, and it for this reason that it is being discussed. By conceptualizing an issue as a security threat, an issue can be given power and political credibility, and is likely to be treated as a more important issue (McDonald, 2013, p44), a key reason in favour of arguing towards a securitization model. Many academics disagree with the broadening and deepening of security beyond anything other than traditional military conflicts, arguing instead that security threats may refer only to an existential threat to a state

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(Buzan, 1997, p5). Policy makers and academics alike are gradually acknowledging that it is not enough to define security in such a narrow way. The change in understandings of security is linked to the emergence and development of human security as a primary focus in the UNDP 1994 Human Development Report. Since then, definitions of security have been deepened to include a "people centric security concept" (Tsai, 2009, p 20), that is to say that security is being increasingly understood in terms of the effects it has on the safety of people as opposed the survival of a state as a black box (Mearsheimer, 2006, p72). Human security, which can be broadly understood as meaning "freedom from need and freedom from fear" (Tsai, 2009, p21), is a useful concept to include more topics in security theory, and is particularly relevant to the topics such as health and the environment. Climate change is increasingly being considered to be a security threat on an international level, given the threats it poses to for example food security and infrastructure (Briggs, 2012, p 1049), even though not all countries agree (Brown et al, 2007, p1141).

Nonetheless, whilst it is becoming more widely accepted that the climate poses a potentially serious threat to both the security of states and human security, health, which is closely linked to the climate, can be more a more tenuous issue. A growing body of literature does acknowledge that health and human security are intimately connected (Lisk and Sekalalac, 2015, P37). Lisk and Sekalalac further state that "the concept of human security stipulates that human beings should be guaranteed the right to a standard of health potential" (2015, pp 25-26). However, the discussion around health as a human security issue primarily refers to infectious diseases such as HIV/AIDS or SARS, (McInnes, 2013, p328), diseases which spread between individuals at a rapid pace causing large numbers of deaths at a rapid pace. Other health security discourse discusses it in the context of bioterrorism, which is defined as "the idea of using biological agents to cause disease as a weapon" (McInnes, 2013, p332), so understands health security in a war-like context.

Mental health has yet to find its place in security discourse, whether in itself, or in connection with climate change. There is no reason why widespread mental health worries cannot be understood in a human security context however; not having access to psychological help and support is a clear freedom of need issue, particularly as rates of illness start to soar as a result of disasters. In addition, given that suicide, which is the most extreme consequence of psychological ill health, is increasing at an alarming rate around the world, steps must be taken to address the issue as climate change continues to increase mental stress (Kjellstrom and McMichael, 2013). Governments and other actors have the right to define security threats based on whether threats are adversely affecting the safety and security of their populations, no matter what that threat be (Emmers, 2007, pp110-111). Essentially, states have the ability to act as the securitizing agent, it is thus a feasible task to include mental health in this context should states be willing to do so (Balzacq, 2005, p190). This section has consequently demonstrated that it is easily possible to incorporate mental health, as well as climate change, in security discourse. The primary issue going forwards however, is not whether it can be done, but rather whether states and other actors are willing to do so.

Discussion of the problem

The following section is going to go into more detail with the key issues. It will start by discussing climate change and emergency situations, before moving on to discussing some of the key challenges that must be addressed.

Climate Change and Emergency situations

Climate Change has increasingly been the recipient of international attention, and many governments are acknowledging the need to address it. The impacts of climate change on Mental Health in a general sense have been noted by multiple authors and agencies. It is normal to experience grief, low mood, or stress among other psychological reactions after being exposed to significant traumas, and equally, not everyone involved in a climate disaster will develop a clinical mental health diagnosis. Nonetheless evidence shows mental illness rates soar as a result of climate related occurrences. Extreme drought and heat for example are extremely detrimental to both physical and mental health (USGCRP, 2016, p19), particularly for people already on psychiatric medication, making it difficult for their body to regulate temperature (American Psychiatric Association, No Date, No Pagination).

Often discourse around Climate Change revolves around the consequences for future generations, however evidence has shown that it is already having an impact now, in particular when considering the links of the climate

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and an increase in the number and intensity of extreme weather events around the world (Mathiesen, 2015, no pagination). Exposure to extreme weather events (the frequency of which is related to a changing climate), increases rates of mental Illness. It has been well documented by the World Health Organisation (WHO) that large scale emergencies of any nature are detrimental to mental health due to the unique combination of high stress situations they produce. Further, the loss of homes, jobs and potentially death of friends and family in hurricanes and floods for example can contribute to anxiety, chronic stress, PTSD and depression, especially when existing support structures such as access to psychologists are also disrupted by the disaster (American Psychiatric Association, No Date, No Pagination). Some people are more at risk of developing Mental Health problems in these situations, including "children, the elderly, women (especially pregnant and post-partum women), people with preexisting mental illness, the economically disadvantaged, the homeless, and first responders" (USGCRP, 2016, p19), therefore strategic responses should be targeted towards these groups.

The Intergovernmental Panel on Climate Change (IPCC) states that: "Major impacts of climate change on human health are likely to occur via changes in the magnitude and frequency of extreme [climatic] events" (2001, no pagination). The main extreme weather events associated with climate change are heat waves, droughts, floods, and a heightened number of storms and hurricanes (USGCRP, 2014, no pagination). The IPCC further acknowledges that human health in the aftermath of such events, including 'long-lasting' mental health problems are a likely issue. The US Global Change Research Program (USGCRP) for example, stress that a large number of individuals who experience disasters associated with the climate (droughts, flooding, hurricanes, storms) suffer from psychological consequences, which can be short or long term (USGCRP, 2016, p19). They explain that climate change can cause anything from minimal to moderate stress to serious clinical disorders such as Post Traumatic Stress Disorder (PTSD), depression, anxiety or suicidal behavior (USGCRP, 2016, p18). PTSD is particularly linked, as the illness is born out of experience to traumatic situations (such as war, sexual assault, abuse, as well as environmental disorders), symptoms include flashbacks to the event which can develop immediately in the aftermath or more long term (American Psychological Association, 2017, No Pagination), which also supports an argument that all responses to the issue need to be long term viable. Data in the aftermath of disasters confirms that this is the case. For example, following Hurricane Katrina in 2005, research showed that rates of suicide, along with suicidal ideation became more than twice as prevalent as before, in addition 1 in 6 screened now "met the diagnostic criteria for PTSD and 49% developed an anxiety or mood disorder such as depression" (American Psychological Association, 2017, No Date).

Global Inequalities

This topic is also important to discuss as it reflects broader issues to do with inequality in climate concerns. Vulnerable populations already at a societal disadvantage are suffering the most. Indigenous populations, for example, are more likely to suffer because they are dependent on [stable] natural environments (Willox et al, 2015, p169), and hence will be adversely affected by changes that may threaten their way of life or livelihood. These issues disproportionately affect people already dealing with poverty such as communities living in some of the worlds least developed countries (Berry et al, 2010, p127). There is consequently an argument to be made that the consequences of extreme weather reinforce pre-existing inequalities. One group particularly at risk are farmers and those who work in agricultural production, whose livelihoods depend on natural environments. When droughts or floods occur, livelihoods can vanish almost overnight. Losses associated with climate disasters include economic difficulties which can have a direct impact on mental health and wellbeing, increasing stress and anxiety (Berry et al, 2010, p127). As an example, to highlight the devastating mental cost associated with climate events, severe droughts and rising temperatures in India have been linked to the suicides of nearly 60,000 farmers due to significant pressures on agricultural areas, sparking protests in nation (Safi, 2017, no pagination). The loss of livelihoods of a future, and a sense of purpose can help to explain this phenomenon.

Another concern is the ability of developing countries to adapt to the consequences of climate change more broadly. Often home to the largest amounts of agricultural dependent communities as well as some of the poorest people in the word, developing countries are being disproportionately affected, and are in the least financially stable position to deal with the consequences (Mirza, 203, p233). Therefore, part of the problem is that communities who already have less access to healthcare and resources are being affected more than others, and it is likely that mental health is

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even more likely to be neglected as other more pressing issues to do with food for example emerge, putting people's health at further risk. Interestingly, evidence suggests that Indigenous people in Australia for example, have "higher rates of serious mental disorder [...] and experience higher levels of psychological distress [than non-Indigenous Australians]' before extreme weather is even taken into account" (Hunter, 2009, p446). This point is important to bear in mind in discussions and responses, the 'social and economic' consequences of climate change are disproportionally exacerbating situations faced by those already at a social disadvantage (Hunter, 2009, p 447). Although weather may not always be the primary cause of the rates of mental ill health in the aftermath of disasters in itself, it is definitely a major factor, and consequently warrants discussion in discourse and strategy to do with climate change.

Forced Migration

In some cases, extreme weather and climate change more broadly can result in people being displaced permanently from their homes or land (Berry et al, 2010, p126) often becoming so called 'Climate Refugees'. This can escalate psychological pressures triggering long term disorders such as depression as a result of being forcibly separated from all of the security and familiarity of their day to day lives (Berry et al, 2010, p126). It is estimated that in the next few decades global warming will displace up to 150 million individuals, once again disproportionately affecting those living in coastal areas (Vidal, 2009, no pagination). The mental health consequences of such a phenomenon could be catastrophic. People displaced are likely to experience "an increased sense of helplessness and intense feelings of loss" (Whitmore-Williams et al, 2017, p6). These issues could arise from the sense of a loss of control over their circumstances as well as loss of stability and their future (Whitmore-Williams et al, 2017, p6). Further, not only are people being exposed to the traumas that accompany climate disasters, they have to adapt to a new range of complex circumstances. Further, social networks are important for good mental health, and the feeling of belonging in a community and having ties to family and friend which can be disrupted with migration (Torres and Casey, 2017, p10), increasing stress. In addition, displacement can be a result of the eruption of violent conflict stemming from unequal access to resources as they become scare in times of extreme weather (Swart, 1996, p187). This exposure to violence can be especially traumatizing, and in some refugee situations the UN has estimated that feelings of hopelessness about the future can result in a significant increase of suicidal thoughts and behaviors (McVeigh, 2016, No Pagination). As there are currently no official strategies in place that are robust enough to mitigate for the potential crisis, there is a critical need for international actors to prioritise mental health, else there could be dire consequences.

This section has highlighted just some of the most pressing areas of consideration and challenges associated with the issue of mental health and climate change. The following section will discuss different strategies in place to meet these demands.

Policy and Strategy

There are relatively few existing strategies to this topic, as it is only recently that any attention has been placed on the issue (Rice and McIver, 2016, p1). This section will discuss initiatives that have been implemented, or are in the process of being so, before moving on to explicitly discussing recommendations.

Fundamentally, a big part of tackling the issue is to focus on initiatives to reduce this man-made climate change. This is to say that global greenhouse gas emissions need to decrease, strategies to do so include switching to renewable energy, reducing waste and conserving energy in the design of buildings and urban planning (Kjellstrom and McMichael, 2013). Climate impact and adaption assessments also need to take place, with a focus on determining vulnerability among nations in order to identify whether disaster management structures are effective (Mirza, 2003, p240). These initiatives will not eliminate the problem, but taking steps to reduce this major trigger to extreme weather will hopefully reduce the amount of people who end up caught up in such disasters.

Some communities, for example in the Circumpolar North, have designated both climate change and mental health as priorities, but as two distinct issues (Willox et al, 2015 P179). This is consistent with the international picture, global policy outlines policy recommendations for climate change, and for mental health but not many of these are

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intertwined. However, many of the strategies in place to deal with the two separate issues can apply to the topic of the paper.

Mental Health Progress

Mental health is now included in the UN Sustainable Develop Goals (WHO, No Date-a, No Pagination). This means that the global context now provides a great deal of opportunity for the development of policy and strategy to combat the issue of Climate Change and Mental Health, incredibly significant. Not only does this bring this taboo subject to the attention of different actors, it raises it on the international agenda, and marks a historic moment as prior to this it was only communicable diseases that had been considered in this way (WHO, No Date-a, No Pagination). Furthermore, the World Health Organization has designed an action plan on global mental health, adopted in 2013 during the 66th World Health Assembly, and they have set targets that will be evaluated in 2020 regarding implementation of mental health strategies as well as disaster preparedness. (WHO, 2013, p1). The World Health Assembly has also adopted the 'Global Strategy to Reduce the Harmful Use of Alcohol' (WHO, No Date-a, No Pagination). Whilst this may not have been written and implemented with climate change explicitly in mind, it is without a doubt a major step in the right direction, as these policies can be applied in a climate context, in particular in situations involving climate related conflict, or migration.

National governments play a key role in this crisis both limiting and enhancing progress. Support can be dependent on not only political and security priorities at the time, but also of the robustness of national health systems, as well as the availability of health systems to individuals crossing borders as refugees. This remains a major gap and psychological health is rarely included in health care, regardless of the economic development of a nation. To illustrate this last point, in low and middle-income nations, 76%-85% of individuals affected by severe mental health conditions do not receive support, this figure is 35%-50% in high income countries, a figure which remains far too high given the debilitating and isolating nature of mental illness (WHO, 2013, p8); and these figures reflect the situation before any disasters occur.

Not all responses have to be explicitly related to health care, whilst it is a critical part of the response, it is only one element. There are instances where strategies have been put in place on a local or national level to meet the challenge of climate related mental health concerns in an indirect way. For example, following the high number of suicides by famers in rural India related to droughts affecting their livelihoods, the Indian government have implemented a \$1.3bn insurance scheme which is in place to protect famers from crop failures (Agence-France Presse, 2016). Protecting farmers from catastrophic risk of income and future, thus reducing stress and anxiety as well as other psychological responses to pressure is a significant contingency solution. This is a key example to highlight that it is possible to implement targeted strategies at a local level.

Governments, on both a national and international level can also play a key role in addressing Mental Health by implementing protective laws and policies for individuals with mental health needs (WHO, 2013, p20). This will help to create an atmosphere to reduce stigma, stigma referring to negative connotation and reactions towards mental health, and fears of discrimination, enabling those that need help to get it. This will help to normalize mental health, and increase people's own awareness to what they are feeling (Whitmore-Williams et al, 2017, p42). Strategies need to be culturally appropriate and thus should involve different actors in health structures, and religious or cultural leaders as appropriate. On the surface, doing so appears to be a major task, and it will indeed not be easy. Many national governments however, in response to growing pressure have started to do so and can be highlighted as examples. The UK government is among those who have launched official anti-stigma program where they have provided a budget of £500,000 to develop online support (Stone, 2015, No Pagination). Once again, this response is not climate specific, however it does show that there is increasing recognition, most notably in more economically developed countries, that a response is needed as well as a willingness to address this.

Emergency Responses

Given that a lot of the crisis revolves around the aftermath of disasters, it is important to discuss policies and strategies in place to manage emergency responses. There are pre-existing recommendations and strategies in

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place targeting mental health in emergencies, though many of these require proper funding, and more accountable implementation. Emergency response strategy can be divided into two broad areas, resilience and disaster preparedness and supporting displaced people and climate refugees.

A critical point to stress is that strategies need to be in place prior to an emergency taking place, and need to be in place not only in areas susceptible to extreme weather, as weather is unpredictable. Resilience and disaster preparedness is imperative to increase preparation to extreme events on a community level (Kjellstrom and McMichael, 2013). This is to say initiatives which help communities and individuals develop necessary coping skills in preparation for any potential climate disasters, which aims to reduce susceptibility to negative mental pressures. This helps strengthen community bonds and allow groups and individuals to identify strategies unique to them to foster good mental health in the event of a disaster (Whitmore-Williams et al, 2017, p44). Identifying support systems prior to disaster is crucial to reducing suffering, it is much more difficult to this under intense pressure, returning to the aforementioned need to develop health system infrastructures. There are also examples of strategies to support mental health for those who have been forced to migrate or have become refugees. In accordance with WHO recommendations, psychological support training for people working or volunteering in migrant and refugee communities is a critical strategy, as is the presence of counseling teams to provide psychological support to people unable to access formal healthcare (WHO, 2015, p1). The WHO guidance provides a comprehensive assessment of the necessary tools and strategies of way in which to deliver support, covering key areas such as supporting people with PTSD (WHO, 2015, p27) or helping those at risk of suicide (WHO, 2015, p49). NGO's such as Medecins Sans Frontiers are currently working on providing these services by providing psychosocial care to people they work with, and in 2015 they delivered 223,900 mental health interventions (MSF, 2015, No Pagination). As much of a positive impact that NGO's are having however, they are limited in their resources, and thus this strategy needs to be better developed and implemented by a broader range of actors.

There is further evidence of new strategies to tackle social isolation and loneliness through the use of technology. An existing example is the Refugee United Project which helps refugees trace family members who are missing (Torres and Casey, 2017, p6). Social integration and the development of support networks which are critical to maintaining a sense of belonging can be further addressed through initiatives such as language classes for those who have moved to a new country or region, linguistic isolation can reinforce feelings of hopelessness and isolation (Mind, 2009, p9). This demonstrates that targeted responses at reducing the conditions which allow mental distress to flourish in combination with other strategies can be effective. Furthermore, technology when available can be an incredibly useful tool, often used to support clinical mental health interventions (for example meditation mobile apps such as 'headspace' can help support treatment for anxiety). The aforementioned example demonstrated the way in which progress can be used to manage crises, and should play a role in discussions of solutions.

As has been evidenced in this section, existing responses are limited generally, and are almost none-existent in a climate specific context. With this is mind, the following section will outline recommendations for how the international community should proceed in regard to mental health and climate change, and discuss some practical steps that could be taken.

Recommendations

Global strategies need to be especially targeted to areas and communities at a higher risk, such as low-lying nation states, and programs need to be developed in order to protect mental health of 'populations

facing imminent climate-mediated displacement' (Rice and McIver, 2016, p1). This is where the international community may need to be of assistance, as the essay has highlighted, there is currently unequal access to mental health specialists. Low-income countries only have access to 0.05 psychiatrists per 100 000 people, the rate of which is 170 times more in high income countries (WHO, No Date, No Pagination). Mental health budgets thus to be concretely set on both a national and international level to help develop local structural healthcare systems. All of policy, the governmental strategies in particular, outlined in the previous section need to be further developed. In addition, this section will outline three areas of recommendation, firstly discussing the need to raise attention on the issue and the need for greater data collection, before moving on to practical recommendations, which include

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developing community led support and the appeal of public-private partnerships.

Data

There is a global silence surrounding this issue which is costing lives. Consequently, a key consideration must be to establish where the discussions surrounding this issue should be taking place. Of course, one could argue that mental health should be a feature of all discussions to do with the human cost of a changing and unpredictable climate. How to approach the issue is problematic. There are arguments for discussing it as a security, development and/or human rights issue, and the fact that mental health and substance abuse appear in the SDG's provides an excellent opportunity to raise the issue in tandem with climate forums. The discussion does not have to be limited to development or health forums though. Organizations who would not be traditionally associated with mental health have made moves to discuss it in recent years as they have started to acknowledge the intersection of mental health and security. For example, NATO, an alliance associated with traditional military security had a task force working on the topic of suicide in the military from 2011-15 (NATO STO, No Date, No Pagination)[2].

One strategy is to frame the crisis as a major public health security concern, however this requires a much better data collection. Putting the case to government actors will be a key challenge, and the lack of reliable information is one issue that needs to be addressed. Data collection is crucial to get a better idea of the scale of the problem, as this is extremely limited at the moment (Berry et al, 2008, p125). It is easy to dismiss the issue as it currently stands due to inconsistent or missing data. Analysts have raised the argument that a lot of the links between farmer suicide and climate change for example are still based frequently off of assumption as opposed to robust qualitative date (Berry et al, 2011, p 128S). This is a complex task; cultural and social barriers will stand in the way of collecting adequate date from different parts of the world. It is also not straightforward to assess morality records. Suicide figures are notoriously inaccurate, in many instances, coroners do not accurately record suicide as a cause of death in instances where reports are filed, so it is very likely that suicides related to climate change and extreme weather are more prevalent than is thought at the moment (Bakst et al, 2015, p115). Nonetheless it is a crucial task, in terms of practical solutions, data will need to be collected about the rates of mental illness across different regions, particularly those at greater risk (Rice and McIver, 2016, p1).

Consequently, research is a key recommendation for the future, the links between climate change and mental health need to be proved as much as possible to strengthen the case for making it a priority.

Community Initiatives

The development of community based lobby and campaign groups is also a factor which could help implement change. Indeed, there is a correlation between the countries that are implementing mental health initiatives with the number and power of campaign groups. The UK has been used as an example on more than one occasion in this essay, as it is nation that is gradually acknowledging the need to improve mental health provision. The UK is also home to a number of mental health grassroots campaigns, there are many major charities such as 'Mind' or 'Rethink Mental Illness' who involve members of the community to campaign, and produce research (Mind, 2013, No Pagination). There is further a campaign lobby in the UK called 'Time to Change' which is successfully getting universities and businesses to sign a pledge to support their students or employees with their mental health. Furthermore, the WHO has noted that "Civil society movements for mental health in low-income and middle-income countries are not well developed" (WHO, 2013, p9), with high-income nations having almost double the amount (WHO, 2013, p9). Consequently, one could argue that the development of community groups, particularly those with a political mission statement is a useful strategy to getting mental health higher on the agenda, especially in relation to climate change. There is a role for different NGO and charitable actors to come together in different regions to help support this type of movement, for example environmental groups, along with mental health charities could work with local actors in areas that are particularly at risk to help foster resilience and coping skills.

As well as this more political angle, there is a need to develop support provision at a community level, once again, a difficult task. There are different ways to approach this, and different actors to involve. Raising awareness and combatting stigma may seem like a small part of the response, however is one of the most important. It has been well

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documented that stigma and fear of reactions of other prevents people from seeking support (APS, 2014, No Pagination). People are more likely to respond to people that they identify with, indeed culture can often be a determinant of how willing individuals are to seek help (Office of the Surgeon General et al, 2001, No Pagination), which supports an argument that community leaders as well as members of the community generally should be involved. This support in practical terms could take the form of talking support groups as an example, an opportunity for people to share what they have experienced and benefit from the coping mechanisms of other in the same situation, or at the very least feel less alone and isolated in how they are feeling. Furthermore, there is a role for government and NGO actors to train key members of the community with basic mental health awareness and crisis management skills, whilst of course at all times recognizing that they are not professional actors. These measures should only ever be complementary to official avenues of support, and should by no means be used as an alternative; they do not replace professional and medical help. In implementing such programs, those delivering need to be aware of cultural and religious barriers and different interpretations of mental health. Working at a grassroots level is likely to be more successful than internationally for part of the strategic response, allowing intervention to occur in a way that is suited and relatable to the beneficiaries.

Public-private partnerships

It is all well and good to provide different strategies that would help with the problem, however realistically funding is, and will continue to be, one of the biggest issues to addressing this issue. Health in itself has received declining global attention and funding, especially since the de-securitization of HIV/AIDS. The primary issue is simply that the 21st century is plagued by a wide variety of pressing security concerns; health is getting pushed to the bottom of the agenda (Katz and Singer, No Date, No Pagination). Further, many of the countries that require the most development of health initiatives and systems are plagued by major security concerns such as terrorism or civil war, which dominates government and available financing.

Whilst it is still important for governments themselves to include mental health in their financial priorities, there is an argument that public-private partnerships can be an effective strategy to accelerate progress. For the purpose of this essay, public-private partnerships will be understood as referring to "initiatives that establish a contract between a public agency and a private entity (for- profit or not-for-profit) for the provision of services, facilities and/ or equipment" (World Bank, 2013, p1). These have been noted as being efficient tools to target 'neglected diseases' (Buse and Harmer, 2007, p261), by increasing attention directed to specific issues both on a national and international level, as well as helping to mobilize funds, helping to ensure international standards in healthcare and help provide healthcare to individuals living in economic hardship (Buse and Harmer, 2007, p261).

This strategy would be in line with the recommendations set out by the WHO, which stress the need for responses to mental health in a general sense to be multisectoral (WHO, 2013, p10). Public-Private partnerships are not without their criticisms, most notably around the risk of private interests interfering with progress in favour of prioritizing commercial advantages (Buse and Waxman, 2001, p750). Part of the issue also arises through misinterpretations of what exactly is meant by a partnership, they are often interpreted as being a method of privatization, whereas in reality they exist to compliment public services not to replace them (World Bank, 2013, p1). Ultimately, as uncomfortable as some may be with the idea of involving the private sector in issues of health or human security, there is a desperate need for targeted funding and few resources available. What will be important is the way that they are implemented, which could be strictly regulated.

There are existing examples of successful partnerships in the field of mental health. One such example is in the UK, where a public-private partnership has resulted in the availability of a 24-hour helpline alongside other measures to help children navigate the British mental health system (BBC, 2015, No Date). Another example is a partnership which ensured access to landline phones in homes of people in low-income economic groups in the USA, as well as mobile phones, facilitating access to a variety of existing mental health support (Ben-Zeev, 2016, No Pagination). Going forwards, it will be beneficial for partnerships to be established which target specific issues associate with climate triggered mental illness. These could include (but are not limited to) responses specifically in low-income areas with poor health care provision, or specifically at communities who have been displaced as a result of extreme weather, or to farmers and agricultural workers. In order to be truly effective, it will be necessary to decide upon a

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definition of what it means to be a successful public-private partnership (Pedersen et al, 2015, p22), in order to ensure that any implemented meet the needs they are supposed to do. Partnerships can also compliment community initiatives that this essay argued were important. A partnership between Veterans Health Administration and US Department of Health and Human services addressed mental health needs among war veterans, and has had success in reducing barriers to care in rural areas in America (Pedersen et al, 2015, p23). Whilst there are not many examples to draw on in the field of the climate, historic and current success stories within health, and mental health specifically demonstrate that this could be a useful tool. Once again, research and data collection is going to be an important starting point.

In order to be truly effective, strategies to combat climate change need to act alongside strategies to support mental health.

Conclusion

To conclude, this paper has provided an argument for the inclusion of mental illness in discussions around climate change. It has introduced both the conceptual and the theoretical debates that surround the topic, and has given an overview of strategies to help meet the challenges posed. The main conclusion to draw is that this is a topic which is only likely to worsen if left alone, and those most affected will continue to be those who are already the most vulnerable in society. NGO's should not be the ones taking the responsibility for this issue, it is too big and complex, and by passing on the responsibility to such groups governments are failing their citizens. A combination of specific and general climate change and mental health policies must be implemented in order to tackle some of the core issues; strategies are needed, before, during, and after climate disasters.

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Notes

[1] Some of the more common clinical disorders include the following. Anxiety, which can be understood as a state of persistent and uncontrollable worry, although there are a range of anxiety disorders. Depression, which broadly refers to serious enduring low mood and a loss of pleasure in daily life, and suicidal behaviors are when individuals take steps to end their own life. Post-Traumatic Stress Disorder is an anxiety related disorder which can emerge following a traumatic event (Mind, 2017, no pagination).

[2] As an extra note on this topic, whilst the first task group has ended, a follow up group has been established and has meetings starting in December 2017

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