

**PERSPECTIVE**

The role of mental health nurses in planetary health

Cheralyn Hallett | Tanisha Barrett | Hannah Brown | Anthony Lacny | Jo Williams

The University of the West of England,
Bristol, UK**Correspondence**Cheralyn Hallett, The University of the
West of England, Bristol, UK.Email: cheralyn.hallett@uwe.ac.uk**Abstract**

This article will critically explore the concept of planetary health and locate the role and identity of the mental health nurse (MHN) within it. Like humans, our planet thrives in optimum conditions, finding the delicate balance between health and ill-health. Human activity is now negatively impacting the homeostasis of the planet and this imbalance creates external stressors that adversely impact upon human physical and mental health at the cellular level. The value and understanding of this intrinsic relationship between human health and the planet is in danger of being lost within a society that views itself as being separate and superior to nature. The Period of Enlightenment witnessed some human groups viewing the natural world and its resources as something to exploit. White colonialism and industrialization destroyed the innate symbiotic relationship between humans and the planet beyond recognition and in particular, overlooking the essential therapeutic role nature and the land facilitated within the well-being of individuals and communities. This prolonged loss of respect for the natural world continues to breed human disconnection on a global scale. The healing properties of nature have effectively been abandoned within healthcare planning and infrastructure, which continue to be driven principally by the medical model. Under the theory of holism, mental health nursing values the restorative capabilities of connection and belonging, employing skills to support the healing of suffering, trauma and distress, through relationships and education. This suggests MHNs are well situated to provide the advocacy the planet requires, through the active promotion of connecting communities to the natural world around them, both healing the other.

KEYWORDS

climate change, mental health nursing, planetary health

BACKGROUND

Planetary health can be a complex concept to define. Fundamentally, it can be viewed as the intrinsic connection between the ecosystems where humanity both interacts with and depends upon for its own survival. It is about how humanity can collectively take care of those living systems through sustainable initiatives and new ways of living that support the health and well-being of humans whilst having a minimal impact on the planet (Whitmee et al., 2015). The optimum conditions of the

planet are vital to both ensure and enable a safe hospitable place for humanity to inhabit, survive and thrive. Paradoxically, in the pursuit of improving human health outcomes, the last 60 years has bought about many significant medical advancements while creating an unprecedented ecological footprint that has had a devastating impact on the health of the planet and the very ecosystems on which the health and well-being of humanity depend (Kameg, 2020; Myers & Frumkin, 2020). The World Health Organization (WHO) (2016) outlines that climate change, caused by human activity, is the leading

This is an open access article under the terms of the [Creative Commons Attribution](https://creativecommons.org/licenses/by/4.0/) License, which permits use, distribution and reproduction in any medium, provided the original work is properly cited.

© 2023 The Authors. *International Journal of Mental Health Nursing* published by John Wiley & Sons Australia, Ltd.



threat facing the health and well-being of humanity significantly impacting on the four conditions essential for humans to thrive: access to shelter, clean air, safe drinking water and nutritious food (WHO, 2021). The impact on these four vital foundations of health is creating severe global consequences for human well-being and health outcomes across the lifespan (Romanello et al., 2022).

These changes in the health of the planet are creating circumstances where extreme weather and increase in global temperature are now clearly being observed (United Nations, 2015). Throughout the summer of 2022, the United Kingdom (UK) experienced the hottest temperature on record (40.3 degrees Celsius) and prolonged periods of drought and destructive fires (Met Office, 2022). This has been a similar picture for the UK's closest neighbours in European countries and elsewhere around the globe (van der Wiel et al., 2023). These alarming changes are subsequently having a worldwide impact on the infrastructure of livelihoods, living conditions, environment and community. The impacts of climate change are disproportionately experienced by populations and communities from low-income countries, who have contributed the smallest environmental impact, and by low-income populations within high-income countries (Althor et al., 2016; Resnik, 2022); particularly indigenous populations whose traditional husbandry and ways of living greatly mitigate environmental and ecological impacts.

The climate crisis is proving devastating to key indicators and vulnerabilities associated with the social determinants of health, collectively causing humans to become more at risk and susceptible to significant physical and mental ill health including co-morbid complications and accelerated mortality (Whitehead & Dahlgren, 1991; Whitmee et al., 2015). The world has seen increases in optimum conditions for the development and transmission of devastating and fatal diseases such as Malaria, seen following the recent destructive and catastrophic floods in Pakistan (2022), and Coronaviruses (such as the COVID-19 pandemic) on a scale that has highlighted inequalities in accessing protection, monitoring transmission and treatment between nations (GAVI, 2021). The concerning evidence of an increase in Avian Influenza and the necessary surveillance to monitor whether this has the potential to mutate into a strain that could create a future pandemic, serves to underline how fragile current lifestyles are (Naguib et al., 2019; Scottish Government, 2022). Humanity is living in a state of permacrisis in relation to global public health. If planet Earth is becoming a toxic environment for human survival with evidence suggesting it is entering a sixth mass extinction event, is there a role for nurses, in particular mental health nurses (MHNs), to be proactive in promoting social justice and leading in health policy?

The mental health nursing profession has evolved from being custodians working in large institutions to promoting the value of the repairing and healing

properties found in the connection and relationships, between individuals and the wider communities and networks to which they belong (Hein & Scharer, 2015). Today, the MHNs' place of work is not static, but wherever someone finds themselves at a given critical point in their life story. Consequently, MHNs have developed core skills and responsibilities in valuing and finding the voice of those experiencing distress and ill health, through advocacy, and nurturing therapeutic relationships to enable a safe structure for growth and healing to occur. One facet of the MHN role includes supporting people to re-connect with their community, network and the environment around them, and educating and empowering people to see the healing that the planet is able to provide, as it has done for many thousands of years (Jimenez et al., 2021).

As a species, human beings are hardwired for social connection and have thrived over tens of thousands of years through their abilities to engage with each other. The primitive social groups they evolved from provided safety and security around meeting their most basic physiological needs. Brain development is fundamentally reliant on this social connection process from birth (Cozolino, 2014). Fast forward to the present day and there is growing awareness of the harm, stressors and trauma that living in the complex social structures of the modern age can bring. It would seem, despite claims from social media companies, that humans have never been more disconnected. This is a worrying set of circumstances for a species where connection is a fundamental element of what it means to be human.

Discussions around climate change have developed into polarized thoughts, beliefs and opinions, making meaningful conversations challenging and almost impossible at a strategic and influential level. As a result there is a heightened risk of becoming desensitized to disturbing facts and statistics surrounding the impact of climate change. Whether it is highlighting nearly 13 million people dying each year from environmental factors, or 92% of people globally being exposed to unsafe levels of air pollution, at a cost of US\$5.11 trillion globally (Neira & Ramanathan, 2020; WHO, 2016, 2018), healthcare professionals can no longer ignore their contribution to this. In England, in 2019, the National Health Service (NHS) own carbon dioxide emissions totalled 25 megatonnes (Tennison et al., 2021).

This is not a climate crisis impacting other species or ecological habitats elsewhere; everyone is inescapably part of this delicate system. Lives lived 'here' will impact on neighbours over 'there'. On the other hand, perhaps the majority of humanity has lost that innate connection to the planet and the ecological systems that create our home and somehow externalized themselves from this dire situation as a defence mechanism to protect themselves from the desperate realities that humanity faces as a species? Keeping calm and carrying on appears to be the strategy. Yet, 'keeping calm' entails stifling concerns



and invalidating appropriate worries about the climate crisis. The evidence is mounting that mental health sufferers are more likely to die in heatwaves (Lawrance et al., 2022), countries on the frontline are the most unhappy (dos Santos, 2022) and their young populations the most eco-anxious (Aruta et al., 2022), so there may be some value in returning to the concept of 'environmental despair' (Macy, 1995), in this respect. To support and promote more helpful communication around climate change, there is a need to humanize those statistics and numbers by locating the life stories of people within them; for example, 9-year-old Ella Kissi-Debrah. The coroner who investigated the circumstances of Ella's death concluded that there were levels of nitrogen dioxide and particulate matter in her body which exceeded the WHO guidance on safe air (Dyer, 2021). With global reports indicating that a staggering 7 million people die annually from air pollution, locating and amplifying those individual life stories, provide us with an opportunity to hold to account the human activity contributing to those statistics and work towards repairing the social injustices it creates (WHO, 2018).

CAN PSYCHOEDUCATION BE UTILIZED TO SUPPORT THE SUSTAINABILITY AGENDA?

There has been much discussion surrounding healthcare professionals and their role within the advocacy for planetary health (Costello et al., 2013; Kotcher et al., 2021). With this awareness, one could surmise that the role of the MHN is well placed within society to highlight the importance of sustainability, as their skill set enables them to be at the forefront in supporting service users and the public, in containing distress caused by the climate crisis (Clayton, 2020; Kurth, 2017). However, what if the planetary health and climate crisis are so expansive that the personal distress and discomfort felt by MHNs hinder them from utilizing these skills, thus resulting in a lack of confidence in their professional voice that could obstruct the clarity of the message within the sustainability agenda in healthcare?

PSYCHOEDUCATION WITHIN CLIMATE ANXIETY

Psychoeducation works on the premise that when information is provided and learning applied, this supports the process of healing and more importantly, that healing is owned by the service user (Lukens & McFarlane, 2004). Research has found that psychoeducation is effective within the management of stress (Van Daele et al., 2012), presenting itself as an appropriate technique in supporting service users to manage climate anxiety. MHNs are proficient in utilizing the skill of psychoeducation to

support effective outcomes across the full range of different mental health conditions, as within their training, education is facilitated within these domains, however at present, there would not be the same educative experience within the student nurse curriculum and continuing professional development (CPD) modules to support psychoeducation around climate anxiety. Dunphy (2014), proposes that while healthcare staff have more awareness and ownership of sustainability within their personal lives, this does not carry over into professional responsibility within the healthcare environment. Themes relating to disempowerment and feeling unqualified to act have an impact on sustainability within healthcare.

Another concern, together with the lack of education and training, is the paucity of space to acknowledge professional climate distress. There is concern that MHNs have not had the opportunity to reflect and explore their own response to climate distress within professional lives. If safe spaces are created within working environments to explore this purported distress, more connection could readily be achieved. If opportunities remain lacking, there is a risk of prolonged disconnect within the mental health nursing profession, creating a shift away from being able to support clients experiencing climate anxiety. Before MHNs are able to fully utilize the skill of psychoeducation, there is a need for them to own their own comfort, as well as having an awareness of the risk of possible personal distress arising from climate anxiety, thus enabling the processing of information to ensure it is delivered safely and competently to our service users.

HOLDING DISTRESS

Supporting psychoeducation in practice requires MHN being able to understand the underpinning theory behind the diagnosis, in addition to having an awareness of the symptomology and possible causes. Utilizing this knowledge enables and creates opportunities to work towards normalizing and empowering service users and carers to achieve better health outcomes (Xia et al., 2011).

Within the UK healthcare system, structured opportunities are lacking for MHN to process or acknowledge the distress around the planetary health and climate crisis and to be able to reflect upon and understand personal motive responses towards this stressor. There needs to be a safe and reflective space held by clinicians who have engaged in specialized training/facilitation around climate anxiety and planetary health and climate crisis distress. The Climate Psychology Alliance (CPA) (2022a) is an example of an initiative which involves a network of people including healthcare professionals, concerned with the impact of the psychological and emotional distress surrounding the climate crisis. In addition to signposting the public to 1:1 therapy, they also support running localized climate cafes; here, through group



connections, people can explore their concerns or distress related to this issue (CPA, 2022b). Climate anxiety and planetary health and climate crisis distress are also reflected in the MHN profession's lack of ability to engage in CPD modules to support further development of competence relating to this. Furthermore, there is a lack of mandatory training. Many NHS Trusts are aligned to Skills for Health's Core Skills Training Framework. This framework identifies 11 core mandatory training components (Skills for Health, 2022) for healthcare staff. Unfortunately, there is no dedicated training for planetary health or sustainability within this framework.

Kaas (2020) identified areas of practice to support future nurses; yet, climate change and planetary health are mentioned only briefly and in the context of 'forecasting future trends' rather than it being at the forefront of the nursing curriculum now. This short-sightedness is highlighted both within the Future Nurse: Standards of proficiency for registered nurses (NMC, 2018b) and in the Standards for pre-registration nursing programme (NMC, 2018c), where there is no explicit reference to climate distress, planetary health or sustainability. Arguably, this learning could fit comfortably within many of the Nursing and Midwifery Council (NMC) learning domains but, without clear direction from the NMC, these links remain tenuous and are held at the discretion of curriculum coordinators within higher education institutions. Not having this opportunity to learn has an impact on competence levels in providing psychoeducation and creates distance between awareness of the severity of this issue and engaging on an emotional level with the climate crisis.

HUMAN CONNECTION

Western civilization is built on colonialism; therefore, the systematic stripping of resources and devaluing other humans, animals and land is deep within the psyche. The colonial ideology successfully supported the Western world in destroying people groups, their traditions and their lands in exchange for wealth. Wealth has consistently been put above life and has been driven by a deliberate disconnect from 'othered people' and the planet. The vast majority of humans have been taught how to ascribe value to people and the planet in a way which aligns with a colonial mind set, having learned how, and been complicit in, plundering the Earth for resources. This leads to wilfully ignoring the populations who are impacted most—usually in lower economically developed parts of the world/previously pillaged parts of the world—as Western society has been taught that 'those people are less like people' from their own communities.

Often humans engage in anthropomorphic behaviour to understand and connect with the Earth. Examples of evidence of this are located in books including 'The Hidden Life of Trees' (Wohlleben, 2016), in which the

trees are described as existing within communities and families, looking after the elderly and protecting their young. Attributing human characteristics to flora and fauna helps us to relate to the Earth and to respect it as an individual; it supports us to view the Earth's inherent value beyond what can be gained from it. However, one problem with humanizing the environment is that the connection and respect given are based on seeing ourselves reflected back at us.

Anthropomorphism perpetuates the idea that the only way we can wholeheartedly welcome or embrace someone or something, is if it is similar to us. The idea that care extends to those things which are like us could be one of the reasons there is so much hostility, aggression and indifference towards various people groups. In exploring our connection to the planet, we must first examine our connection to one another. A part of respecting and being a co-subject with nature is about facing the myriad of hatred that exists: racism, transphobia, ableism, classism, sexism, homophobia and violence directed at the planet. Learning about each other and the Earth enables connection and fosters the ability to develop a deeper respect for those not the same as us. We may care about green spaces and waterways in our local vicinity but not about the Amazon rainforest and the impact of agriculture and cotton for clothing in distant, far-off parts of the world, wilfully forgetting that what happens here (in the UK), impacts elsewhere. We pick and choose which aspects of nature we want to protect or invest in, and those choices often centre the West. We must learn to live with one another in a way that is balanced and takes account of all of our needs. Reconnecting with each other as fellow human beings is imperative to the future of the planet. In turn, connection with each other supports our mental health and well-being (Jose et al., 2012).

The planet is not only our home, but also our caretaker. Conversations about the planet are often about how we as humans need to save it. An alternative view is that the earth is saving us; we rely on it wholly and it will continue to exist without us. Whilst we can acknowledge that the earth is taking care of us, we also have a unique role; we are its custodians. Part of our role as MHN is working towards viewing ourselves as co-subjects with nature and supporting the people we work with to immerse themselves into a deeper relationship with their surroundings. The research exploring well-being and interacting with the natural world is compelling; being with nature is conducive to having a greater understanding of ourselves, our bodies and our nervous systems (White et al., 2020). Nature supports us to reflect and to pause; it offers us perspective, scale and a chance to breathe. Additionally, Nisbet et al. (2011) showed that nature connectedness was consistently associated with a sense of autonomy, personal growth and purpose in life. Interaction with green spaces is healing both physiologically and psychologically and



supports feeling connected to the planet and to each other (Jennings & Bamkole, 2019). However, many of those utilizing mental health services face specific barriers in relation to accessing green spaces.

NURSING'S ETHICAL RESPONSIBILITIES

Elizabeth Iro (Chief Nursing Officer, WHO), in a keynote speech at the Royal College of Nursing (RCN), Congress 2022, passionately demanded action from the global nursing profession around climate change and the global public health emergency. Within the eyes of the public, nurses are a trusted profession and have key patient facing roles and leadership positions with the potential to shape the clinical setting in which healthcare services connect with their service users. In acknowledging that there is a global public health emergency as a profession, do nurses have an ethical duty to act upon this? Within the UK, nurses, midwives and nursing associates are regulated by the NMC, whose primary role is to protect the public as outlined in the NMCs Code of Conduct (2018a). The Code states to, 'Act without delay if you believe that there is a risk to patient safety or public protection' (NMC, 2018a). Whilst MHN are well positioned to be able to meet the acute and chronic psychological needs of those impacted by climate change and its associated traumas, they require the necessary education to equip themselves with appropriate skills to manage, respond and support disaster situations. Sadly, this education appears absent from current nursing curricula (Kameg, 2020). In the instance of planetary health and climate crisis, this requires coordinated efforts from a multitude of global disciplines to effect meaningful change for the health and well-being of humanity. Nursing cannot action this alone and needs support to be enabled and empowered. This means nursing requires a voice on a global platform to advocate for the health needs of those they care for and support.

Activism and participation can be viewed as a spectrum ranging from campaigning, writing, research, education, petitioning local Members of Parliament or Government, engaging in peaceful gatherings or disruptive protesting. Given the severe concerns highlighted surrounding climate change, campaign groups, such as Extinction Rebellion, feel that the most appropriate action level is civil disobedience. This is likely to cause internal conflict with nurses and other healthcare professionals as perversely, a diversity of sanctions might befall a registered nurse who is campaigning for health and social justice in relation to urging Government and corporate companies to act responsibly and ethically. It begs the question, why does the public need protecting from nurses actively engaged in campaigning for healthcare and social justice?

The nursing profession has a history built on socio-political activism (Florell, 2021). On returning from the Crimean War, nursing pioneer Florence Nightingale actively lobbied the Government during the late 1850s for a Royal Commission to investigate the devastatingly high death rates of soldiers (attributed to sanitary conditions rather than battle wounds), to ensure that the necessary improvements could be implemented to prevent this from happening again (Fee & Garofalo, 2010; McDonald, 2010). More recently, a scoping review concluded that activism is a missing component in undergraduate nursing programmes, that nurses lack the opportunity to develop the skills in public speaking and the word 'activism' was a barrier to engagement in health activism (Mundie & Donelle, 2022). Resnik (2022) highlights the importance of ethics and ethical considerations within environmental justice and ensuring that work to reduce one country's carbon activity is not then disproportionately impacting another; the latter likely to be vulnerable low-income countries with low-income populations. It is important that nurses are clear about what to campaign for and how to further the need for a more global response, rather than just locally or nationally.

For MHN to respond to the global public health emergency that climate change is creating, requires the NMC, as professional regulator, to provide a more robust standpoint on its pledge to uphold the protection of the health of the public. Whilst the NMC acknowledges the link between the climate crisis and public health within its 2020–2025 strategy, it is yet to position itself as a leader and actively empower the profession (NMC, 2020). A more vigorous response via an updated version of the NMC's Code of Conduct would be welcomed.

CONCLUSION

The voice of the MHN profession could and should be instrumental in vocalizing the need for sustainability within healthcare but an accurate estimation of the collective distress manifested by global planetary health and the climate crisis, requires further, in-depth exploration. A notable query is whether the climate crisis reflects the same levels of distress in MHNs when trying to manage their own mental health needs as that of service-users' experiences. The identification of distress demands the need for a high level of support which arguably match the role and remit of the MHN. Sadly, within the MHN profession, access to this specialized support to navigate professional and personal distress themselves around climate anxiety and planetary health is lacking. Withholding the opportunity to identify, reflect and contain distress around climate crisis, anxiety could have a detrimental impact on the level of comfort MHN feel about supporting others and owning their voice within the promotion of a sustainability agenda.

Therefore, the role of the MHN is also a part of activism. The issues surrounding access to green spaces,



clean air and the future of the planet are inherently political and adopting a proactive stand is now paramount. This does not always have to be activism on a global scale; it could simply start with one nurse, in one team locating opportunities to support, educate and lead colleagues and service users in navigating the, at times, overwhelming gravitas of the global public health crisis currently being faced. Urgent considerations are required for more sustainable medication rounds, managing food waste at meal times, planning community home visits sustainably and educating future MHN about the essential requirement for self-resilient capacity and capability; thus being able to adapt dynamically and innovatively to new ways of working to support vulnerable and marginalized communities impacted by the planetary health and climate crisis. Whilst global scale planning and action is paramount, this is also essentially about individual MHN being able to view themselves as part of the solution.

RELEVANCE FOR CLINICAL PRACTICE

Current evidence highlights climate change is impacting the physical and mental health of the global population. Robust leadership and education (including regulatory bodies such as the NMC) is necessary to ensure MHNs are supported to develop greater awareness and understanding of the impacts of climate change on health, enabling the profession to meet the changing clinical needs of the public. Further exploration of considerations to support MHN to manage personal distress surrounding the impact of climate change would be beneficial.

ACKNOWLEDGEMENTS

Martin Lewis, BA(Hons), BSc (Hons), PGcertHE, SFHEA, RNChild, The University of the West of England; Fred Ehresmann, RMN, The University of the West of England; Helen Martyn RGN, BSc (Hons), PGCert HE, Clinical Leadership PGDip, The University of the West of England; The Sustainable Global Public Health teaching team at The University of the West of England for continuing to ignite passion around the topic of climate change and locating the Registered Nursing role.

FUNDING INFORMATION

None.

CONFLICT OF INTEREST STATEMENT

The authors have no conflicts of interest to declare.

DATA AVAILABILITY STATEMENT

Data sharing not applicable to this article as no datasets were generated or analysed during the current study.

REFERENCES

- Althor, G., Watson, J.E. & Fuller, R.A. (2016) Global mismatch between greenhouse gas emissions and the burden of climate change. *Scientific Reports*, 6(1), 20281.
- Aruta, J.J.B.R., Salcedo, S.S., Guilaran, J. & Guinto, R.R. (2022) The plight and promise of mental health providers in the face of a warming planet: perspectives and experiences from The Philippines. *International Review of Psychiatry*, 34(5), 530–533.
- Clayton, S. (2020) Climate anxiety: psychological responses to climate change. *Journal Anxiety Disorders*, 74, 102263.
- Costello, A., Montgomery, H. & Watts, N. (2013) Climate change: the challenge for healthcare professionals. *BMJ*, 347, 6060.
- Cozolino, L. (2014) *The neuroscience of human relationships: attachment and the developing social brain*, 2nd edition. London: W.W. Norton & Company Ltd.
- dos Santos, M. (2022) Climate change and mental health within the African context. *International Review of Psychiatry*, 34(5), 510–512.
- Dunphy, J. (2014) Healthcare professionals' perspectives on environmental sustainability. *Nursing Ethics*, 21(4), 414–425.
- Dyer, C. (2021) Government and medical educators must act to reduce deaths from air pollution, says coroner. *British Medical Journal*, 373, 1062.
- Fee, E. & Garofalo, M.E. (2010) Florence nightingale and the Crimean War. *American Journal of Public Health*, 100(9), 1591.
- Florell, A.C. (2021) Concept analysis of nursing activism. *Nursing Forum*, 56(1), 134–140.
- Hein, L.C. & Scharer, K.M. (2015) A modern history of psychiatric – mental health nursing. *Archives of Psychiatric Nursing*, 29(1), 49–55.
- Jennings, V. & Bamkole, O. (2019) The relationship between social cohesion and urban green space: an avenue for health promotion. *International Journal of Environmental Research and Public Health*, 16(3), 452.
- Jimenez, M.P., DeVille, N.V., Elliott, E.G., Schiff, J.E., Wilt, G.E., Hart, J.E. et al. (2021) Associations between nature exposure and health: a review of the evidence. *International Journal of Environmental Research and Public Health*, 18(9), 4790.
- Jose, P., Ryan, N. & Pryor, J. (2012) Does social connectedness promote a greater sense of well-being in adolescence over time? *Journal of Research on Adolescence*, 22, 235–251.
- Kaas, M. (2020) Will we be ready? Preparing psychiatric-mental health nurses for future practice. *Journal of the American Psychiatric Nurses Association*, 26(1), 112–119.
- Kameg, B.N. (2020) Climate change and mental health: implications for nurses. *Journal of Psychosocial Nursing and Mental Health Services*, 58(9), 25–30.
- Kotcher, J., Maibach, E., Miller, J., Campbell, E., Alqodmani, L., Maiero, M. et al. (2021) Views of health professionals on climate change and health: a multinational survey study. *The Lancet Planetary Health*, 5(5), 316–323.
- Kurth, A. (2017) Planetary health and the role of nursing: a call to action. *Journal of Nursing Scholarship*, 49(6), 598–605.
- Lawrance, E.L., Thompson, R., Newberry, L., Vay, J., Page, L. & Jennings, N. (2022) The impact of climate change on mental health and emotional wellbeing: a narrative review of current evidence, and its implications. *International Review of Psychiatry*, 34(5), 443–498.
- Lukens, E. & McFarlane, W. (2004) Psychoeducation as evidence-based practice: considerations for practice, research, and policy. *Brief Treatment and Crisis Intervention*, 4(3), 205–225.
- Macy, J. (1995) Working through environmental despair. In: Roszak, T., Gomez, M. & Kanner, A. (Eds.) *Ecopsychology: restoring the earth/healing the mind*. London: Counterpoint, p. 6.
- McDonald, L. (2010) *Florence nightingale at first hand*. London: Continuum.
- Met Office. (2022) *Record high temperatures verified*. Available from: <https://www.metoffice.gov.uk/about-us/press-office/news/wealth>

