Climate Change and Student Mental Health Report

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Contents

Foreword 2

Acknowledgements 3

Executive Summary 4

Our Recommendations 7
Government and policymakers 8
Universities 9
Support 9
- Strategy, finance and operations 9
- Built environment, green spaces, and the natural world 9
- Sustainability in the curriculum 10

Introduction 11

Background 12
Student mental health 13
Climate change 14
Sustainability in higher education and the curriculum 15
Developments in the study of climate change and mental health 17
Climate change and mental health in the general population 17
Climate, environment, and positive mental wellbeing 17
Agency, hope, power and control 19
Climate change denial 19

Methodology 20
Limitations 22

Findings and Discussion 23
Understanding and learning about climate change 24
Concern about climate change 26
Responsibility & action 27
Behaviour and lifestyle changes 29
Mental wellbeing 30
The role of the United Kingdom government 33
The role of universities 35
Sustainability in the curriculum 37

Future Research 38

Conclusion 40

References 42

Foreword

Dear Colleagues,

At Student Minds, we are dedicated to listening to students' greatest worries. Concerns about the climate emergency have become louder and louder each year. In addition to their academic life, our 2.5 million students are citizens of our wider society and they want to talk about it.

Mental health research has shown us that by effectively addressing social determinants, like financial instability and environmental factors including pollution or housing, more of us can have better mental health. Within the University Mental Health Charter Framework we also acknowledge the impact the environment has on our health. Climate change then, would reverse hard fought progress to improve the mental health of our communities. It will cause direct damage to health services and supply chains, and mental health professionals are already seeing climate-related anxiety issues increasing in the therapy room.

Whilst universities and students have been at the forefront of much research, practice and influencing work around the climate emergency, it's time for us to truly hear what our students are saying and recognise that we are not responding fast enough to the greatest challenge of our history and our lifetime. The UN has previously warned that a broken perception of risk based on "optimism, underestimation and invincibility" is fueling disasters. Are our sector leaders also feeling too tired, too defeatist, too busy or even too optimistic that others will 'be the change' - so we don't have to do it?

If Covid taught us anything, it's that big issues need big plans, and to make things better, we need to act together. And we need to act before it becomes an even greater problem.This research provides insights and recommendations for how we start. We are grateful to every student that has shared their story with us, and thank the UPP Foundation, HEPI and colleagues across the HE and health sectors that have supported us with launching this work.

This report does not set out to be the final word on climate change and student mental health. Instead, we hope it serves as a starting point for policymakers, researchers, sector leaders, students, and activists alike to get curious about this connection.

Within Student Minds our student advisory committee and green team have led the way, helping us to think about how sustainable our events are, how ethical our fundraising and investments policies are and ensuring that responding to climate change is part of our 'core business'. This is an act of supporting the wellbeing of our community. We all need brave, inclusive spaces to talk about our climate-related feelings, if we are going to deal with them in a healthy way. We also know that micro actions set the tone and feed into people's agency for the macro actions.

Our findings show that we have many reasons to be optimistic. The students we spoke to are civic-minded, determined, and have a sincere desire to make a difference. Underpinning our conversations was a great concern for those who may be disproportionately impacted by climate change. Our participants understand the powerful role that the higher education sector can play at the centre of knowledge production in the realms of sustainability and environmental science. Universities across the country are already leaders in this space; students are challenging themselves, and the sector, to take it further.

Perhaps if all our institutions pull together, we can change direction and create a healthy and sustainable future. It's over to all of us to confront our fear and over-optimism head on. We must talk about our own piece of the climate response puzzle. And we each need to make sure our piece is firmly in place.If we do this, we'll be celebrating our students and sector's role in what we do best. Providing hope for what is possible.

Rosie Tressler OBE,
CEO at Student Minds

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Executive Summary

Key themes emerging across our research include:

- Sustainability and psychological wellbeing in the curriculum
- Leadership and responsibility
- The impacts of climate change on thoughts, feelings and behaviour
- The role of green spaces and the natural world in promoting positive mental wellbeing
- Uncertainty, agency, and control
- The role of UK HEIs and the government in tackling climate change
- The various impacts on different student subgroups (i.e. international students, disabled students, students from disadvantaged socio-economic backgrounds, etc.)

Headline findings:

- 71% of our respondents were quite or very concerned about climate change, while 68% were quite or very concerned about the impact on them personally.
- Only 10% of our respondents felt climate change never negatively impacted their mental health and wellbeing in the preceding four weeks. The most common reported impacts[1] were:
  - Frustration and anger due to climate change denial (40%)
  - Frustration and anger that not enough is being done to address climate change (37%)
  - Anxiety about the impact of climate change on future generations (37%)
- The majority (53%) of our respondents wanted to learn about sustainability in their curriculum, while only 20% already had. Of the latter group, the majority reported experiencing negative thoughts, feelings and behaviours afterward.
- 20% of participants reported "often or always" having positive conversations about climate change in the preceding four weeks, while 15% often or always helped somebody else limit their contributions to climate change.
- Respondents widely expressed a desire to make a positive contribution to tackling climate change but often felt like they didn't know where to start. Respondents believed universities could facilitate these opportunities through a variety of means, including facilitating "green" placements across academic disciplines, supporting sustainable initiatives and good practice in their local communities, and co-designing built and natural environments on campus with students.
- Respondents reported positive mental wellbeing benefits from accessing nature and green spaces through a variety of means, including physical exercise, community volunteering, wildlife appreciation, and more.
- Participants expressed significant concerns about the impacts of climate change, climate change inaction, and interventions to address climate change, on specific student groups, including international students, disabled students, commuter students, and students from a lower socio-economic background.
- Participants emphasised a desire to see greater leadership from the UK government and intergovernmental bodies, specifically raising concerns about the speed and scope of action being taken to mitigate climate change.
- This being said, participants emphasised that addressing climate change is everybody's responsibility, including their own.

[1] Most commonly reported to have been experienced "often" or "always" in the preceding four weeks

Background and aims:

- As the climate crisis continues, there is a rapidly growing body of research concerning the impact of climate change on mental health in the general population and among young people.
- "Eco-anxiety" and other forms of climate-change mental distress have simultaneously been gaining considerable traction in the media and public consciousness.
- Despite this, at time of writing, there exists minimal focused research exploring the relationship between climate change and student mental health & wellbeing.
- This research aimed to establish an evidentiary foundation as to whether students believe climate change is having a negative impact on their mental health and wellbeing.
- This research has been generously supported by the UPP Foundation.

Methodology in brief:

- The policy report is built on mixed-methods research, supported by a literature review, semi-structured focus group interviews, and a quantitative survey.
- Eligibility criteria were that participants were current students at a UK HEI, however students could be studying any subject at any level of study, and could be of any national background.
- We had 153 survey respondents and twelve focus-group participants. Participation was incentivised by entry to a voucher draw for the survey, or by a guaranteed voucher reward for focus group participants.
- The focus groups ran in December 2022; the survey ran for three weeks from late February-March 2023.

Commentary:

- The findings within this report demonstrate that the majority of our respondents do believe climate change negatively impacts their mental health and wellbeing. This research is, to our knowledge, the first exploration of the relationship between climate change and SMHW in a UK higher education context.
- Given the ongoing and increasing threat posed by climate change to our environment and ways of life, it is therefore likely that any negative mental health and wellbeing impacts will endure and potentially increase.
- HEIs have a unique interest in understanding climate change-linked distress as they are home to communities whose mental health and wellbeing is impacted, but are also central to knowledge-production surrounding climate change (and indeed any efforts to mitigate it).
- Similarly, those interested in supporting positive student wellbeing have a dual interest in climate change mitigation - both for the prevention of any negative impact on student wellbeing, but also as our evidence shows green spaces and the natural environment are utilised by participants to promote and protect good mental wellbeing.
- Numerous areas for further research are identified, such as understanding the role of green social prescribing (as well as nature in promoting positive wellbeing more widely), pathological climate change-linked distress in students, clinical interventions for climate change-linked distress, the impact on different student groups, and psychological wellbeing in sustainable curricula. Broadly, we identified the benefits of exploring the impact on climate change across a larger, randomised sample.

Recommendations in short:

For the UK government:

- Explore piloting green social prescribing programmes through both community NHS provision and university partnership trusts.
- Utilise the wealth of expertise within UK HEIs by forging stronger partnerships between government and institutions; allocate further funding to support research and innovation in sustainable technologies and practices
- Explore the benefit of removing requisite barriers to greater international collaboration in sustainability and climate research, such as funding and immigration concerns
- Support further research into the impact of climate change on mental health and wellbeing in the population, including specific, marginalised groups.
- Invest in green jobs creation across sectors and academic disciplines, creating natural pathways for graduates to build sustainable careers.
- Monitor the incidence of climate change-linked mental distress across the population, including thoughts, feelings and behaviours.
- Develop a public health strategy for poor mental health and wellbeing linked to climate change.

For UK HEIs:

- Monitor incidence of climate change-linked distress among students and staff.
- Explore feasibility of piloting green social prescribing initiatives to support SMHW
- Divest from polluting industries.
- Facilitate more graduate opportunities in sustainable sectors and “green” placements.
- Fund and nurture student-led, green community initiatives and spaces such as horticultural gardens.
- Co-design green spaces with students.
- Explore the benefits and feasibility of providing psychological wellbeing provision for staff and student researchers focused on climate change research.
- Couple psychological wellbeing with sustainability when integrating subject material into curricula.
- Create tangible, clear pathways for students to apply their subject-matter expertise to tackling climate change.
- Identify, discuss and promote good practice on local and regional levels to students, and facilitate their involvement.
- Continue to draw on the wealth of expertise within and across the institution to support more sustainable practices strategically, financially and operationally.

Our Recommendations

Government and policymakers

Our respondents on average believe that national and international governing bodies are the most responsible for tackling climate change, yet reported broadly pessimistic perceptions of the steps already being taken. Some respondents did acknowledge the government's policy commitment to achieving Net Zero as an example of policy measures already being taken to tackle climate change. However, the overarching sentiment was that the UK government is not acting quickly enough or taking drastic enough measures to prevent climate change

Research

- Utilise the wealth of expertise within our higher education sector by expanding investment in climate and sustainability research at universities. Universities are centres of knowledge production concerning climate change and their work should be central to any wider government strategy to successfully avert climate disaster.
- Facilitate and enable international research partnerships, removing the requisite barriers to doing so successfully, such as funding and immigration concerns.
- Support further research into the impact of climate change on mental health and wellbeing in the population, including specific, marginalised groups. Our respondents raised concerns about the disproportionate impact climate change and sustainability initiatives may have on various groups, including disabled people, those with low incomes, international students, and more.
- Research and pilot targeted interventions and support for pathological behaviours in response to climate change-linked mental distress.

Physical and built environments

- Assess urban planning considerations at a local and regional level, the role of green spaces and natural world and positive impact on mental and physical health and wellbeing
- Understand the specific mental health and wellbeing impacts of key environmental concerns such as river and sea pollution, and build these considerations into environmental policy.

Green economies

- Prioritise job-creation in "green", sustainable sectors of the economy, especially at the graduate level. Our respondents showed a significant interest in undertaking green placements as part of their study, as well as a desire to take positive steps to tackle climate change and be involved in the solution to this existential threat. Through investing in sustainable industries to promote job growth, the government can make best use of the wealth of knowledge, skills, and enthusiasm of our students.

The health sector

- Explore piloting green social prescribing programmes through both community NHS provision and university partnership trusts.
- Monitor the incidence of climate change-linked mental distress across the population, including thoughts, feelings and behaviours.
- Develop a public health strategy for poor mental health and wellbeing linked to climate change. It is as of yet unclear what the mental health burden of climate change may be across the population, however given the escalating urgency of the climate crisis and the growing evidence base concerning the mental harms of climate change, there are benefits to understanding the public health risk posed and being proactive in addressing it.

Universities

In tackling climate change, much like in tackling poor student mental health, a holistic, whole-university approach is necessary to achieve a green transition and sustainable development. Our evidence base suggests respondents believe that climate change is having a negative impact on their mental health and wellbeing. This only strengthens the case for interdisciplinary working across fields and professions to tackle these twin issues.

Universities are often thought leaders and centres of excellence in climate and sustainability research, incubating numerous green initiatives and technologies and advancing scientific understanding in relation to climate change. Despite this, respondents seemed broadly unaware of actions their universities were taking to address climate change in practice, suggesting the need for additional communications to raise student familiarity. However, institutions must be open to criticism and should avoid "greenwashing" at all costs, which means being honest about areas where improvement is needed.

What follows in this section are recommendations to be explored by institutions in a way which is suitable for their unique context. While some interventions may not be immediately feasible for every HE provider, we hope these suggestions provide a valuable starting point.

Support

- Consider monitoring the occurrence of climate anxiety (or other climate change-related mental distress) among students accessing support services to further understand the link between climate change and poor student mental health in their university community.

- Explore the feasibility of green social prescribing programmes for students experiencing poor mental wellbeing unconnected to climate change. The wider evidence base suggests that time in nature and green spaces has significant mental health and wellbeing benefits, often with lower cost and resource implications. Green wellbeing initiatives more widely may also have value as a protective, positive tool to support good mental wellbeing.

Strategy, finance and operations

- Pursue strategic, financial and operational changes which will limit their contribution to climate change and even support efforts to become carbon negative. Seeking to address climate change-related mental distress, without addressing climate change itself, is insufficient and likely futile.

- Continue to draw on the wealth of expertise at their fingertips across student and staff communities to implement green practices in their own organisation. Institutions should seek to co-produce sustainable ways of working.

- Be confident in their ability to challenge climate inaction from a place of expertise, empowering their staff and students to do the same. Universities play a vital role as centres of knowledge production and in training our scientists, urban planners, policymakers and clinicians.

Built environment, green spaces, and the natural world

- Students should be meaningfully included in the co-design of future buildings, green spaces and landscapes. This is relevant both through an academic lens across disciplines, and as community stakeholders with lived experience of utilising the space. Universities have a chance to model good practice promoting sustainability in their green spaces and built environments.

- Fund, encourage and support the development of communal, student-led green spaces and initiatives. Universities and students' unions can, and in some cases already do, facilitate this through the provision of spaces such as gardens, greenhouses, vegetable patches and nurseries. Barriers to participation should be meaningfully considered to ensure access is available to all.

Sustainability in the curriculum

- Embed psychological wellbeing into sustainable curriculums. Our evidence suggests learning about climate change often has a negative impact on the mental wellbeing of respondents. Students should be supported to protect their mental wellbeing when engaging with such subject matter.

- Make psychological wellbeing provision available for academic staff partially or wholly engaged in climate research, in acknowledgement of the adverse impact that ongoing exposure to such distressing material can have on the individual.

- Give students tangible actions and opportunities to apply the knowledge they gain from learning about sustainability, such as through community volunteering. Our respondents widely reported a strong understanding of the causes and impacts of climate change, as well as what is required to mitigate it, but felt unsure about the role they could play as individuals and a community. This lack of direction and agency in turn left respondents feeling broadly negative and helpless about the future.

- Collaborate with external partners to provide students with "green" work placements. Our respondents were keen to understand how their field can make a positive contribution to tackling climate change, and highlighted the crucial role that industry and large corporations play in doing so successfully.

- Identify good practice in mitigating climate change on local, national, and international levels, and educate students about other positive case studies. Respondents commonly reported a pessimistic view of the future, and some proactively sought positive media coverage as a coping strategy for dealing with negative feelings around climate change. Institutions can play a positive role in both highlighting good practice and facilitating student involvement in successful green initiatives.

Introduction

There is very limited research exploring the relationship between these two areas for students in a higher education context, and particularly in the United Kingdom.

The relationship between climate change and mental health more generally is a growing area of research interest as the urgency of tackling this existential threat becomes more and more apparent. “Eco-anxiety” is one label for the phenomenon, gaining attention in the mainstream media and among the general population as we reckon with the seemingly, near-insurmountable, nature of the challenge before us (Skopeliti & Gecsoyler, 2023; Barber, 2021).

Students comprise a significant chunk of the United Kingdom population – with roughly two million UK-domiciled students currently in higher education (HESA, 2023a). There is an economic, as well as moral, motivation to ensure our student population enjoys good mental health and wellbeing. Good mental health throughout university is positively associated with a higher reported quality of life and an increased likelihood of securing employment or further study. By contrast, students experiencing poor mental health are less likely to complete their studies, report lower grades and engagement with extracurricular activity, and are more likely to fall into financial hardship during, and after their studies.

This report explores a number of topics relevant to policymakers and university leaders alike, such as individual behavioural changes, negative experiences and behaviours associated with climate change, the role of agency and control, sustainability in the curriculum, and the role of universities and the UK government. Within each of these topics, key themes that emerged through our literature review are echoed by our student participants in both our focus groups and survey.

The evidence herein supports the hypothesis that climate change has a negative impact on student mental wellbeing, engendering feelings of hopelessness, uncertainty for the future, grief, anxiety, and anger.

We find that the vast majority of our respondents make individual lifestyle changes in an attempt to mitigate climate change, yet as a sample, they generally believe that the responsibility to prevent and mitigate climate change sits with the UK government, international governing bodies, and society at large. Our respondents are more likely to want to learn about sustainability in their curriculum than not, but when they do, they tend to describe negative emotional outcomes from this experience, feeling hopeless and overwhelmed. Evidence from our focus groups and survey alike show that respondents care about climate change and acknowledge its seriousness – but don’t know where to channel this sense of urgency. Universities and the higher education sector can provide a vital outlet by giving students hope, agency, and the opportunities to explore meaningful solutions to climate change and the promotion of sustainable development.

In March 2023, the Intergovernmental Panel on Climate Change (IPCC) released a synthesis report stating that it is not too late to stop catastrophic climate change – but immediate, urgent action is needed. This is, to put it bluntly, our “last chance”.

Background

Student mental health

According to 2021/22 data from the Higher Education Statistics Authority (HESA), there are approximately 2.8 million adults in higher education in the United Kingdom (HESA, 2023b). Roughly half of eighteen-year-old school leavers entered higher education in each of the last three years. As such, students are not a niche demographic, they represent a significant chunk of the population. Approximately one in four students have a diagnosed mental health condition, but individuals with symptoms amounting to a "probable mental health problem" may represent up to 40% of the student population (Tabor, Patalay, & Bann, 2021).

For school-leavers who directly enter higher education, university study falls within a critical developmental window where a mental health condition is most likely to present for the first time. 50% of mental health condition diagnoses are made between the ages of 15 and 25. During this period students have to navigate a number of significant life transitions which each can be significantly disruptive and pose personal, social, and academic challenges. These transitions include, but are not limited to, moving to a new city or country, becoming financially independent, figuring out their identity as an independent adult, exploring their sexuality, being away from existing support networks, questioning their academic capability, and more. While navigating these transitions can be challenging, they can also, if managed well, present a positive opportunity for students to develop their confidence, skills, social network, explore new hobbies and interests, and grow intellectually.

At Student Minds we have adopted a "whole-university" approach, which we articulate in our flagship sector improvement framework, the University Mental Health Charter (Hughes & Spanner, 2019). Launched in 2019, the Charter is broken down into four domains that cover different aspects of the student experience – work, study, learn, and support – in addition to exploring enabling themes. This holistic approach allows us to understand student mental health and wellbeing beyond clinical distress, and see students not simply as academics or patients, but complete human beings. From an institutional angle, the whole-university approach asks that we treat student mental health not simply as the reserve of student services teams and clinicians, but as a matter that staff and services across the institution can make a positive impact toward. Relevant to this work, the role of green spaces and natural environments in supporting good mental health and wellbeing are explored in the "Physical Environments" chapter of the Charter (Hughes & Spanner, 2019, p. 59).

Evidence to suggest whether student mental health is better or worse than that of non-students, or the general population as a whole, is conflicting. While recent data from the Office for National Statistics suggests that higher education students report significantly lower mental wellbeing scores than the general population, they are also less likely to die by suicide than their non-student peers (Office for Students, 2019, p. 2). [x study] shows that students, by virtue of having made it to university, are more likely to have effective psychological coping skills than their non-student counterparts. However, Bewick et. al. found that "greater strain is placed on well-being once students start university compared to pre-university levels" (2010, p. 633) and that at no point throughout university was student wellbeing under less strain than pre-arrival.

Distinguishing "mental health" from "mental wellbeing"

A 2021 scoping review found that there are as many as twenty-eight indicators used to define wellbeing in the UK student population (Dodd, et al., 2021), with limited consensus as to what wellbeing is and is not. We acknowledge the significant nuances in conceptualising, defining, and measuring student wellbeing. For the aims of this report we define "mental health" and "mental wellbeing" as separate, but interlinked aspects of a student's life. At points we use "mental health" to refer to both for ease, which should be contextually evident, but when referring to "mental wellbeing" it should be understood that we are describing non-pathological, more general states of being, separate from clinical or medicalised illness. Strictly for the purposes of this report, our definitions are:

Mental Health

Describing a student's mental state at a clinical or pathological level. Also described in the University Mental Health Charter as "a full spectrum of experience ranging from good mental health to mental illness." (Hughes & Spanner, 2019, p. 9). Note that poor mental health does not necessarily entail poor mental wellbeing. A student may be experiencing mental health difficulties, for instance, if they live with a diagnosed mental health condition, but generally have good mental wellbeing with appropriate support.

Mental Wellbeing

The University Mental Health Charter describes mental wellbeing as "[encompassing] a wider framework, of which mental health is an integral part, but which also includes physical and social wellbeing" (Hughes & Spanner, 2019, p. 9), and also draws on Kraut's model of optimum wellbeing as the "ability of an individual to fully exercise their cognitive, emotional, physical and social powers, leading to flourishing" (Hughes & Spanner, 2019, p. 9; Kraut, 2009).

Climate change

For the purposes of this report, we adopt the UN's definition of climate change as "long-term shifts in temperatures and weather patterns", noting that "[these] shifts may be natural, such as through variations in the solar cycle" (UN, 2023a). This report works off the scientific consensus that climate change since the 1800s has been primarily anthropogenic, that climate change poses an existential threat to humanity and human wellbeing (IPCC, 2023), and that urgent action must be taken to limit global heating (otherwise known as "global warming") to 1.5°C above pre-industrial levels, as per the Paris Agreement (IPCC, 2021). This threshold is of significance as "crossing the 1.5°C threshold risks unleashing far more severe climate change impacts, including more frequent and severe droughts, heatwaves and rainfall" (UNFCCC, 2022).

Some relevant concepts and frameworks for the purposes of this report are:

- **Net-zero:** defined by the United Nations as "cutting greenhouse gas emissions to as close to zero as possible, with any remaining emissions re-absorbed from the atmosphere, by oceans and forests for instance" (UN, 2022).

- **Sustainable Development Goals:** representing "an urgent call for action by all countries – developed and developing – in a global partnership" (UN, 2023b), these goals set out a framework for sustainable growth, management and international development in a number of areas, such as tackling poverty, improving education, and indeed, addressing climate change.

- **Greenwashing:** although exact definitions vary, greenwashing can be broadly understood as "a deliberate corporate action with the presence of misleading elements, focused on the deception of stakeholders" (de Freitas Netto, et. al., 2020, p. 10), with the aim of "[obscuring] potentially harmful information or [delivering] information in a way that portrays a false image that the organization is green or eco-friendly" (Mitchell & Ramey, 2011, p. 41).

- **The Paris Agreement (otherwise known as the "Paris Accords"):** a "legally binding international treaty on climate change" (UNFCCC, n.d.) which aims to keep global warming "well below 2°C above pre-industrial levels", but aspires to a lower threshold of 1.5°C. The treaty came into effect in November 2016 with 196 signatories, including the United Kingdom.

- **Green Transition:** a transition into a sustainable economy, driven through investment in sustainable industries and technologies and divestment from environmentally harmful sectors.

- **Carbon neutral/carbon negative:** made with reference to the net carbon emissions of an institution, corporation, country or other entity. To be "carbon neutral" means an entity emits no more carbon emissions than it removes (Chen, et al., 2022); to be "carbon negative" is for an entity to remove or offset more carbon than it emits.

In March 2023, the Intergovernmental Panel for Climate Change (hence "IPCC") released their latest synthesis report, which found that "human activities, principally through emissions of greenhouse gases, have unequivocally caused global warming, with global surface temperature reaching 1.1°C above 1850–1900 in 2011–2020" (IPCC, 2023, p. 4), and the adverse impacts from anthropogenic climate change would continue and intensify (IPCC, 2023, p. 6). With this in mind, the IPCC states with high confidence that "choices and actions implemented in this decade will have impacts now and for thousands of years" (IPCC, 2023, p. 25).

Sustainability in higher education and the curriculum

The UK higher education sector plays a critical role in our wider efforts to tackle climate change, through multiple means. Our higher education sector is one of the main global centres of knowledge production and innovation in the realms of sustainability, climate change, and environmental science (Whiteley, 2022). Universities are also central to training our future workforce, equipping them with the skills and knowledge to build green, sustainable economies (Tam, 2022). As such, the landscape of sustainability in UK higher education is complex, with a number of key bodies representing students, academics, professional services staff, activists, and more. Stakeholders active in this policy space vary from grassroots organisers and activists, to membership organisations, to academic research groups and corporate partners. Beyond this, each of the UK's 2.8 million students are all – consciously or otherwise – stakeholders in sustainability and wellbeing issues across the higher education sector.

The EAUC (the Alliance for Sustainability Leadership in Education), is a membership body representing universities and colleges in the UK and Ireland on issues pertaining to sustainability in further and higher education (EAUC, 2023). Their work includes research, advocacy, knowledge exchange, and facilitating strategic partnership within the post-16 education sectors and beyond.

In 2021, the Quality Assurance Agency and Advance HE published their landmark "Education for Sustainable Development" guidance, applying lessons from the United Nations' Sustainable Development goals to a UK higher education context. Delivering "advice and support on curriculum design, as well as teaching, learning and assessment approaches" (Advance HE, 2021), the guidance explores how "[institutions] can contribute to sustainable development through, the formal and informal curriculum, research, consultancy, estates/facilities management, governance and engagement with employers, partners and the community" (Ansell & Hack, 2021).

There are a number of student-led groups active in sustainability and climate advocacy within the UK higher education sector. Students Organising for Sustainability UK ("SOS-UK") are a student-led, educational charity who adopt a holistic approach to sustainability, exploring sustainability issues in the wider policy landscape alongside issues including wellbeing, social justice and economic inequality (SOS-UK, n.d.). People and Planet are an autonomous, student-led movement mobilising across the UK for environmental and social justice, training over 2,000 student activists each year (People and Planet, 2023). The National Union of Students (NUS) runs the "Green Impact" scheme in conjunction with SOS-UK and UNESCO, which has supported over 1,500 organisations to support "environmentally and socially sustainable practice" (Green Impact, n.d.).

As early as 1953, ecologist Aldo Leopold noted that "one of the penalties of an ecological education is that one lives alone in a world of wounds" (Cunsolo & Ellis, 2018, p. 276; Leopold, 1953). That is to say, coming to understand the fragility and vulnerability of our ecosystems can be a source of distress. This rings particularly true in the twenty-first century as we reckon with the existential threat and environmental devastation of climate change. Environmental researchers are subject to both primary trauma, such as witnessing pollution in local ecosystems, and secondary or "vicarious" trauma, which arises from exposure to the suffering of others (Pihkala, 2020a). Vicarious trauma is poorly understood in the context of environmental research, but is well-documented in other fields such as Social Work and Nursing. As such, all those engaged in developing sustainable curricula have an interest in accounting for this trauma, for their own psychological wellbeing and that of their students (Pikhala, 2020b).

Developments in the study of climate change and mental health

The relationship between climate change and mental health is a comparatively novel, burgeoning area of study, which presents inherent challenges and opportunities when developing our own research. While minimal scholarly evidence exists exploring the relationship between climate change and student mental health in particular, the last decade has seen a significant growth in research interest regarding climate change and mental health in the general population. This provides a useful starting point for researchers of student mental health.

Numerous new terms have been coined as a consequence of the rapid growth of the field, with many concepts remaining "essentially contested" (Collier, Hidalgo, & Maciuceanu, 2006), organically evolving in the public discourse, or otherwise circulating without a single, widely-agreed definition. This makes conducting literature reviews more challenging and runs the risk of researchers working at cross purposes. However, the inherently interdisciplinary nature of this subject allows us to draw on a vast range of expertise and capitalise on the heightened public interest in both climate change and mental health as separate issues. Our working definitions of some of these concepts are below, but we note that these definitions are not universally accepted and, when considering external research, readers should consider the working definitions used by its respective authors.

Further emotional and psychological concepts have been coined as the field has grown, such as "eco-anger" and "eco-depression" (Stanley, et. al., 2021). These labels are largely self-explanatory and can be broadly understood as the emotion or condition in question arising specifically from climate change, as well as climate change-associated thoughts and behaviours.

The past five years have seen the development of metrics to assess the relationship between climate change and mental health, such as the Climate Change Worry Scale (Stewart, 2021), the Hogg Eco-Anxiety Scale (Hogg, et al., 2021), and other new measures of climate anxiety (Clayton & Karazsia, 2020). Such measures are at varying stages of development and validation. However, there is at present no measure of climate change-linked mental ill health recommended for use in clinical practice in the United Kingdom.

Climate change and mental health in the general population

The threat of climate change is a "significant psychological and emotional stressor" (Ursano, Morganstein, & Cooper, 2017), whether through extreme weather conditions (Morgenstein, 2019), impacts on agriculture and the economy (Clayton & Manning, 2017), loss of livelihoods and culture (IPCC, 2023, p. 6), and the loss of agency and control. A study of young people in the United Kingdom comparing the mental health impacts of the Covid-19 pandemic and climate change found that at that time, "climate change was associated with significantly greater distress overall, particularly for individuals with low levels of generalised anxiety" (Lawrance, et al., 2022).

"Eco-anxiety" in particular has gained significant traction beyond scholarly circles and entered our wider social consciousness. Anxiety induced by climate change, however, is not necessarily pathological in nature, and may manifest as a constructive determination to take pro-environmental action (Verplanken, Marks, & Dobromir, 2020; Pikhala, 2020b).

Climate, environment, and positive mental wellbeing

Access to green spaces and natural environments has demonstrable positive health and wellbeing impacts among university students (Hughes & Spanner, 2019, p. 59; Meredith, et al., 2020). Indicators of a "healthy" environment, such as species diversity, are associated with improved self-reported psychological wellbeing (Aerts, et. al., 2018). A 2019 study of undergraduates at an American university found that "students who frequently engage with green spaces in active ways report higher quality of life, better overall mood, and lower perceived stress" (Holt, et al., 2019). Research from the Department of Health & Social Care also shows that both clinicians and the general public "buy-in" to the idea of green social prescribing, which is when clinical staff refer patients to non-medical, nature-based interventions for support and treatment (DHSC, 2023).

A sample of emerging concepts in the study of climate change and mental health

Climate anxiety (otherwise known as "eco-anxiety")

Worry, distress, nervousness or preoccupation caused by fears of climate change and its impacts. Those who are experiencing "climate anxiety" may fear for the future, struggle with a sense of hopelessness or lack of control, or be preoccupied with concerns they are not "doing enough" to prevent or mitigate climate change. Climate anxiety is variously seen as "rather strong" or as a "general emotion" among scholars, with the concept lacking underpinning diagnostic criteria (Sangervo, Jylhä, & Pihkala, 2022, p. 2).

Climate hope

"[A] combination of motivation and efficacy beliefs" (Sangervo, Jylhä, & Pihkala, 2022, p. 2), climate hope can be understood as the belief that an actor has it within their power to tackle climate change with the concurrent desire to tackle climate change. Climate hope is a "future-based" sentiment, much like climate anxiety.

Ecological grief

A feeling of loss associated with climate change and its consequences. Ecological grief can be broadly categorised into three types: "grief associated with physical ecological losses (land, ecosystems and species), grief associated with disruptions to environmental knowledge and loss of identity, and grief associated with anticipated future ecological losses" (Cunsolo & Ellis, 2018, p. 276).

Eco-guilt

A feeling of personal responsibility, wrongfulness and guilt about one's personal contributions to climate change, or collective guilt about society's (or a wider entity's) failure to sufficiently tackle climate change. Can also manifest as a sense that one is not doing enough to tackle climate change.

Ecopsychology

Ecopsychology, as an academic field, emerged in response to the need to "ecologise psychology" and "psychologise ecology" (Hibbard, 2003, p. 28), understanding that environments and ecosystems can influence human mental health and wellbeing (Brans, 2019). Ecopsychology typically approaches these issues through a therapeutic lens (Thoma, Rohleder, & Rohner, 2021), in contrast with Environmental Psychology, which is more broadly concerned with how environments influence human behaviour (De Young, 1999).

Solastalgia

Described as "the pain or sickness caused by the loss or lack of solace and the sense of isolation connected to the present state of one's home and territory" (Albrecht, 2005, p. 45), and can be induced by perceived, actual, and future degradation of one's home environment (Galway et. al., 2019).

Agency, hope, power and control

Our collective and individual agency, and our perceived agency, is an ongoing subject of debate in discussions surrounding climate change. Beliefs about the extent of our ability to address climate change inform our predictions of the extent of environmental damage we can expect in the future, but also our normative stances as to what we can, and should, therefore do about climate change. Going further, beliefs about our ability to tackle climate change (our agency) and our confidence as to whether we will do so successfully (climate optimism and climate pessimism), have a direct impact on mental health and wellbeing. Understanding the role these perspectives can play in influencing student mental health and wellbeing can inform how we design sustainable curricula and co-produce green initiatives on campus, and may have a wealth of other applications so far as climate change and sustainability are concerned in our university communities.

The relationship between agency and climate change-linked mental distress is complex. One study of young people in the United Kingdom found that agency was positively associated with climate change distress (Lawrance, et al., 2022), meaning that respondents who felt it was within their ability to affect or reduce climate change actually experienced a greater mental harm than those who did not. Interestingly, climate change denial can function in the reverse to create a protective effect (Wullenkord & Reese, 2021), by enabling the individual to believe there is either no harm being done, or that human beings cannot change or mitigate climate change, thus relinquishing control and the imperative to act.

Climate change denial

We define "climate change denial" (or "denialism") here as the belief that climate change does not exist, that it is not anthropogenic, and/or that human intervention cannot influence the course of climate change (either for better or for worse). Climate change denial goes against the scientific consensus supported by thousands of peer-reviewed studies, with the existence of anthropogenic climate change having near-unanimous acceptance by climate scientists. Existing evidence suggests that climate change denial is rare in both the student and general populations (BEIS, 2023, p. 4), although students are more likely to report concern about climate change than the general population (SOS-UK, 2021).

Denialism, as a behaviour or belief, may serve a psychologically protective function. As explored above, awareness of and familiarity with climate change can induce feelings of hopelessness, a loss of control, grief, and future uncertainty. By denying the existence, severity, or anthropogenic nature of climate change, individuals can cope with these feelings either by concluding there is no need to worry, or that even if there was, nothing can be done about it, and so there's no point in worrying.

Climate change denial may also manifest as a political or ideological stance, sometimes (but not inherently) motivated by the psychological mechanisms discussed above (Jylhä, et. al., 2020; Lockwood, 2018). Wong-Parodi and Feygina (2020) write that "[politically] or industry motivated efforts to increase climate inaction […] [include] a coordinated effort by the fossil fuel industry to sow doubt on climate science and undermine efforts to switch away from greenhouse gas emitting energy production". Among individuals there may be economic motivations to adopt climate change denial, for instance, if their livelihood relies on work in a polluting sector.

Methodology

Given the minimal evidence base on the connection between student mental health and wellbeing and climate change in UK higher education, this research aims to build an evidentiary foundation which will serve as a springboard for future researchers to explore this relationship further. Following a scoping literature review, we identified our final research question: "how do students in UK higher education believe that climate change impacts their mental wellbeing?"

We opted not to adopt clinical measures in this work and instead asked participants how they believe climate change is impacting them emotionally and personally – in other words, how they believe it affects their mental wellbeing. As discussed prior, there lacks a widely-accepted clinical scale to determine the extent of poor mental health as a consequence of climate change. By asking students to self-assess how they believe climate change impacts their thoughts, feelings, and behaviours, we avoid pathologising what may be an understandable reaction to an existential threat to humanity and life on planet earth (Clayton, 2020). This is not to say that it is impossible for the threat and impact of climate change to make individuals clinically unwell, but that for our purposes, any self-described, negative impact on mental wellbeing, is still worth understanding and addressing.

This research for this report was conducted with a mixed methods approach, conducting semi-structured focus groups and a survey to establish a base of qualitative and quantitative evidence. Across the survey and focus groups, eligibility criteria was that the participant was a current student at any UK higher education institution. Students could be at any level of academic study and of any discipline, and promotional materials made it clear that students did not need to have subject-matter expertise, lived experience, or personal interest in climate change or mental health to participate.

Two focus group sessions, each approximately 50 minutes long, were conducted in December 2022, with twelve participants across both groups. Of the participants, four identified themselves as international students and eight as UK-domiciled students. A semi-structured interview was developed prior to the focus groups, drawing on research questions formulated based on the findings of our literature review. The focus groups were then transcribed, coded and thematically analysed, and quotes have been selected to further illustrate findings from the qualitative data.

The survey combined a variety of open- and closed-answer questions, which were reviewed by external volunteers from both clinical and academic backgrounds. The questions were either reproduced from previous scholarly or policy research, or were developed by Student Minds, drawing on key questions and hypotheses arising from our literature review. We also utilised Student Minds' existing equality monitoring questions to provide the voluntary demographic data for our survey, to best understand our respondent base.

Participation in our focus groups was incentivised with a guaranteed £15 online shopping voucher for each participant, distributed after completion of the focus group. Participation in our online survey was incentivised with voluntary entry into a prize draw for a chance to win one of two £25 online shopping vouchers. We promoted the research participation opportunity through multiple channels including our social media platforms (LinkedIn, Twitter, Instagram and Facebook), our newsletter and sponsored adverts. We also asked colleagues in higher education and academia to promote participation through word-of-mouth.

Limitations

Given our organisational profile and reach, it is highly likely that students familiar with our work have a greater personal or academic interest in mental health, which may in turn be a consequence of lived experience of poor mental health (either personally or within their social network). Our voluntary demographic monitoring data indicated that respondents were disproportionately likely to disclose a mental health condition compared to both the wider student and general populations. It is possible that students with existing mental health conditions were more likely to report poor mental wellbeing as a consequence of climate change. As we openly promoted the research opportunity as a chance to explore climate change and mental wellbeing, it is also possible that we disproportionately recruited students who have an active interest in climate change or climate change activism.

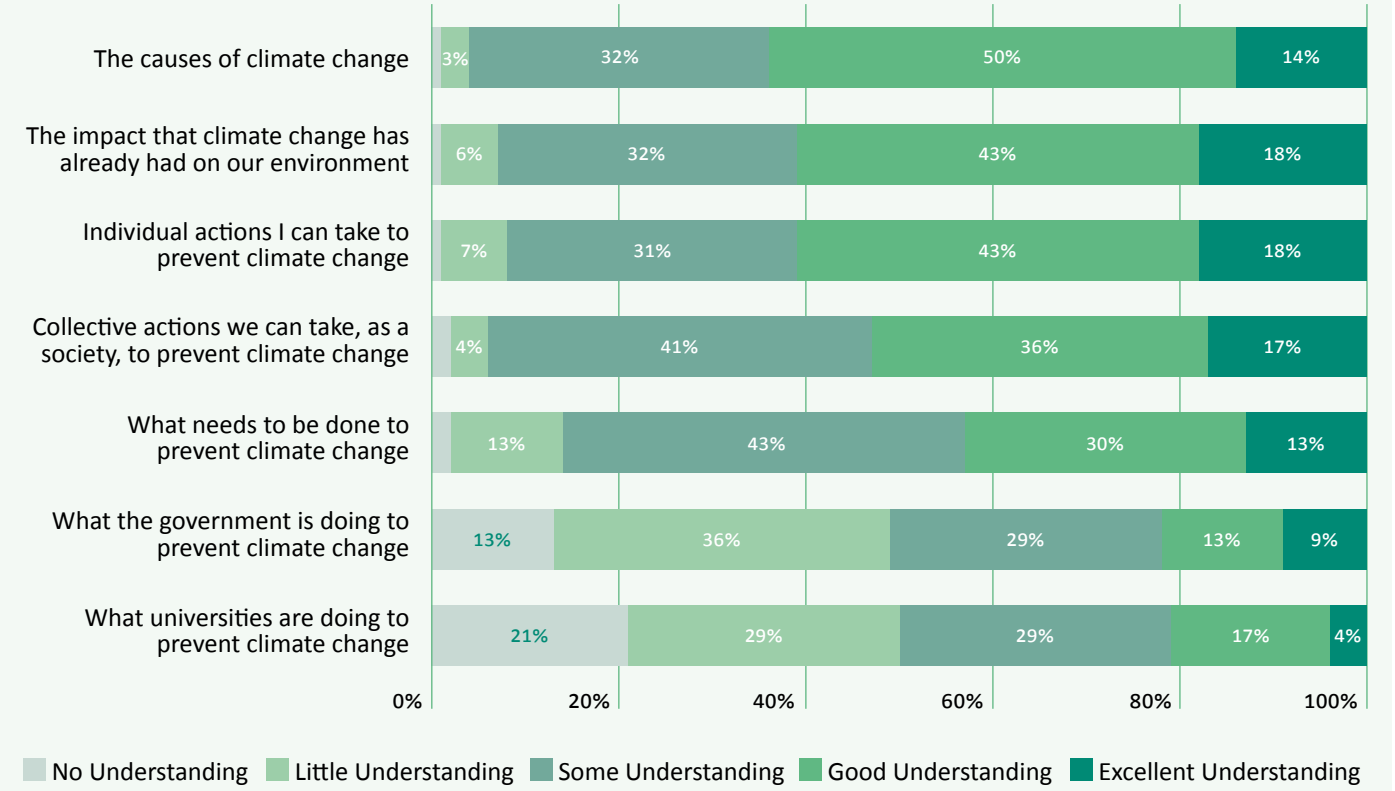
In addition to this, our survey sample size of 153, and focus group sample size of 12, cannot reasonably be extrapolated across a student population of approximately 2.8 million individuals. Sampling took place on a self-selected basis, meaning future research drawing on a larger, randomised sample, would help paint a clearer picture as to how these sentiments occur across the wider student population. Future areas for research and investigation are discussed at the end of this report.

This report provides a novel insight into how our respondents believe climate change impacts their mental wellbeing, how it shapes their thoughts and behaviours, and what they think the UK government and universities need to do about it. It serves a crucial first step towards substantiating the hypothesis that climate change is having a negative impact on student mental health and wellbeing. We particularly hope the qualitative insights garnered through our focus groups and open-answer survey questions will elucidate new areas of inquiry.

Findings and Discussion

Understanding and learning about climate change

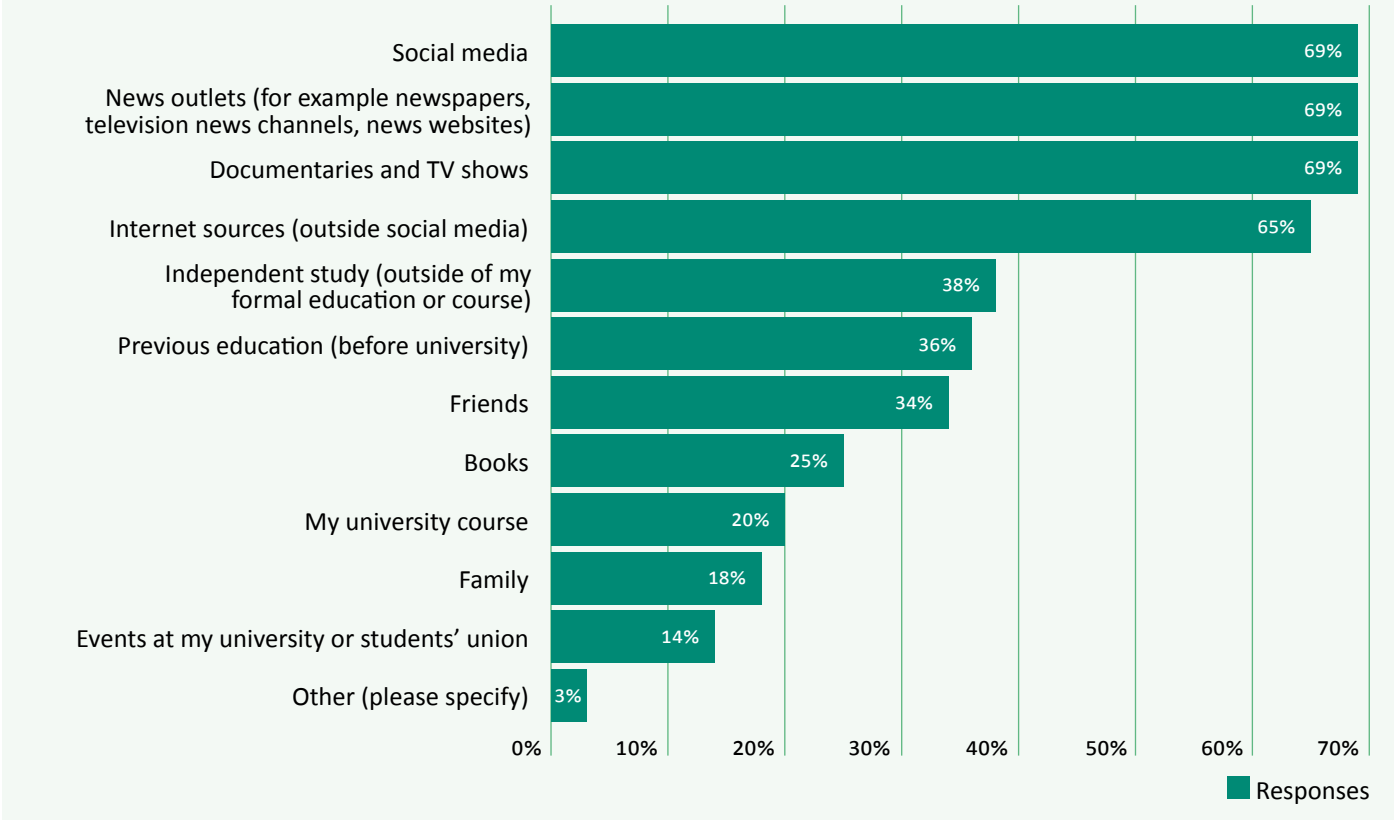
On this scale, Please rank your understanding of the following? (n=120)



We wanted to gauge respondents' perceived understanding of: key concepts related to climate change, what universities and the UK government are doing about climate change, where they got information about climate change from, and their beliefs as to whether climate change is happening already. The aim here is to understand respondents' familiarity and confidence assessing climate change and its impacts.

64% of respondents said they had a good or excellent understanding of the causes of climate change, while 61% of respondents reported they had a good or excellent understanding of the impact climate change has already had. As such, these were the two areas where respondents had the highest, perceived understanding. Respondents reported the lowest perceived understanding of what the government is doing to tackle climate change, with 48% reporting little or no understanding, while 50% reported little or no understanding of what universities are doing to tackle climate change.

Where do you learn about climate change? Please select all that apply (n=118)



Being invested in learning, pedagogy, and education, we sought to understand the main avenues through which students learn about climate change. While we return to the subject of sustainability in the curriculum later, we captured that the most common channels through which students learn about climate change are not (necessarily) within the higher education context. This may have interesting implications for managing wellbeing through climate education and the role of vicarious trauma, as well as feelings of hope and agency. If universities are able to expand their role in delivering sustainable curriculums to reach a greater proportion of students, so too can they appropriately support students through the curriculum and beyond, to handle this knowledge in a psychologically sustainable way. Beyond this, further questions are raised about the reliability of some sources, such as social media, which students are using to learn about climate change, and the extent to which disinformation may shape their understanding.

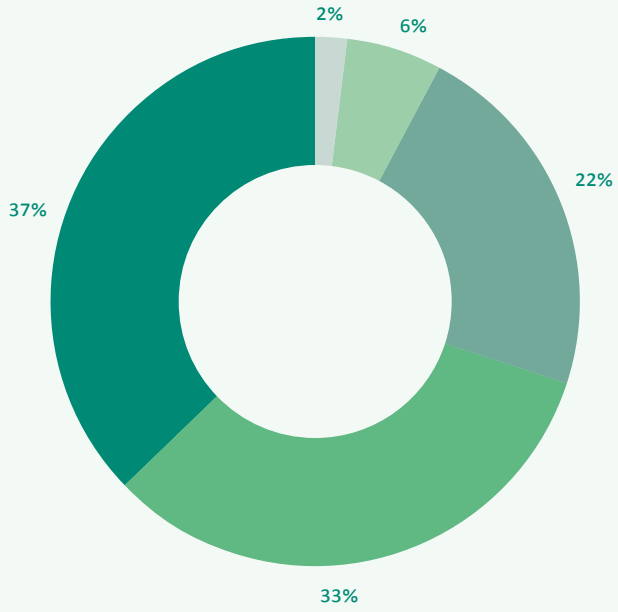
Only 20% of our respondents reported learning about climate change through their university course, with 14% learning through events at their university and students' union. This represents a potential area for growth for universities keen to prepare students for any green economic transition and work in sustainable development.

> **"The media and the way they frame climate change can disengage people from the conversation sometimes. It feels apocalyptic, like doom and gloom sometimes, really scaring people and they think "I'll just switch off and not look at the media", there's never any good news"**

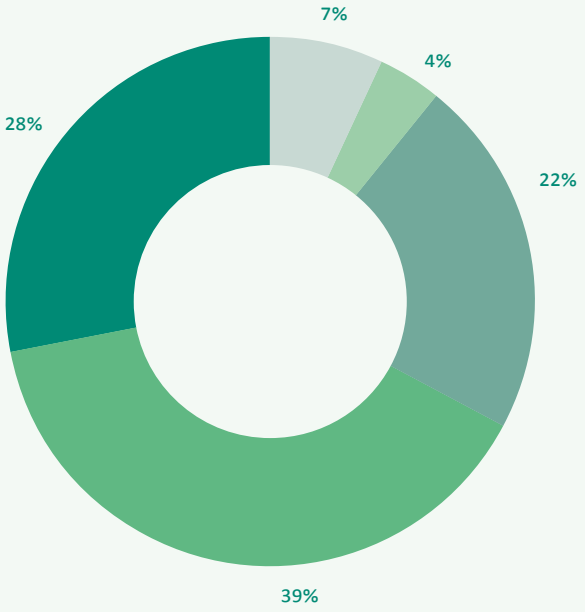
Focus group participant

Concern about climate change

How concerned, if at all, are you about climate change? (n=120)

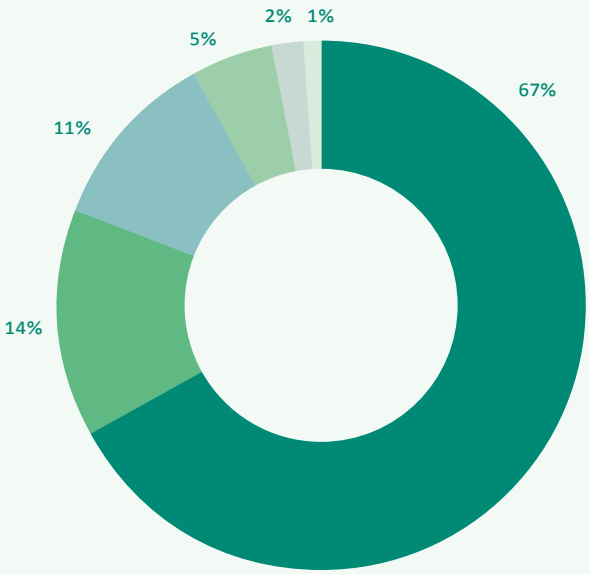


How concerned, if at all, are you that climate change will affect you? (n=120)



Not concerned at all | Slightly concerned | Somewhat concerned | Quite concerned | Very concerned

When, if at all, do you think the UK will start feeling the effects of climate change? (n=120)



We are already feeling the effects | 10 years from now | 25 years from now | 50 years from now | 100 years from now | Never

71% of our respondents reported that they were quite or very concerned about climate change, while only 2.5% said they weren't concerned at all. When we asked respondents about the effect climate change will have on them personally, 68% said they were quite or very concerned, while 7% said they weren't concerned at all. 68% of respondents said that we are already feeling the effects of climate change, and only one respondent said we would never feel its impacts.

These questions were replicated from previous research concerning the general and student populations (BEIS, 2023; SOS-UK, 2021), meaning we could compare our sample to those cohorts. Interestingly, our cohort were less likely to report they were quite or very concerned about climate change (71%) than the BEIS cohort (80%) or the SOS-UK cohort (90%). However, they were also less likely to report being only slightly concerned or not concerned at all (8%) compared to the BEIS cohort (16%) (BEIS, 2023, p. 4).

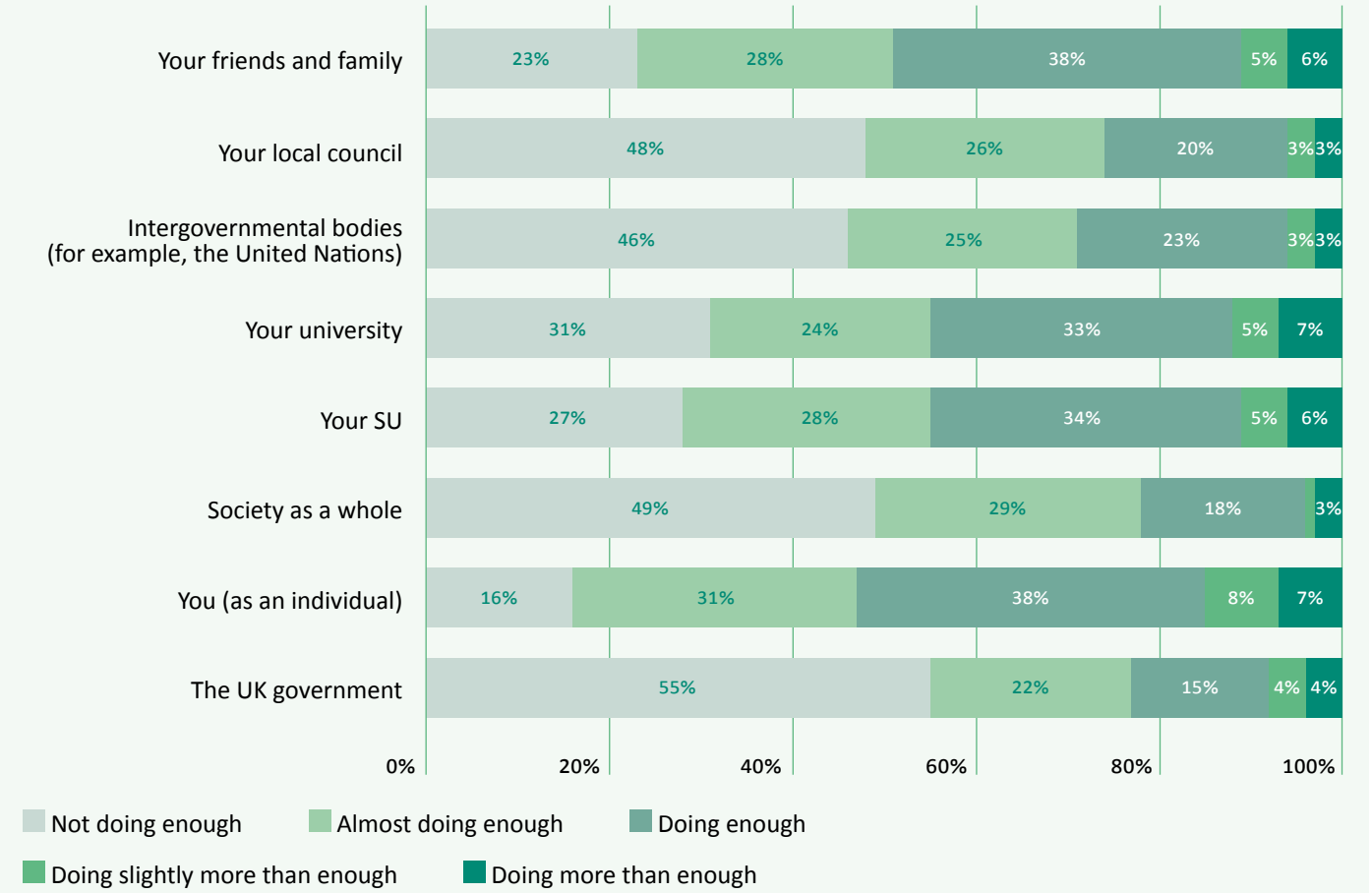
Responsibility & action

For each of these groups or individuals, please rate to what extent you think it is their responsibility to tackle climate change. (n=117)

> **"It's absolutely everyone's responsibility, but I think it's interesting to dig into what responsibility means, responsibility for yourself, responsibility for supporting others, responsibility for informing, for championing new hopes, new technologies, et cetera. There's some real thinking about whose responsibility is it to lead - whether that's strategically or by providing resource, providing consensus"**
>
> Focus group participant

> **"I think the [university] needs to make more comprehensive strategic partners to ensure that the partners who are doing those things are putting responsibility at the core of what they do, not just talking about it. They need to walk the walk."**
>
> Focus group participant

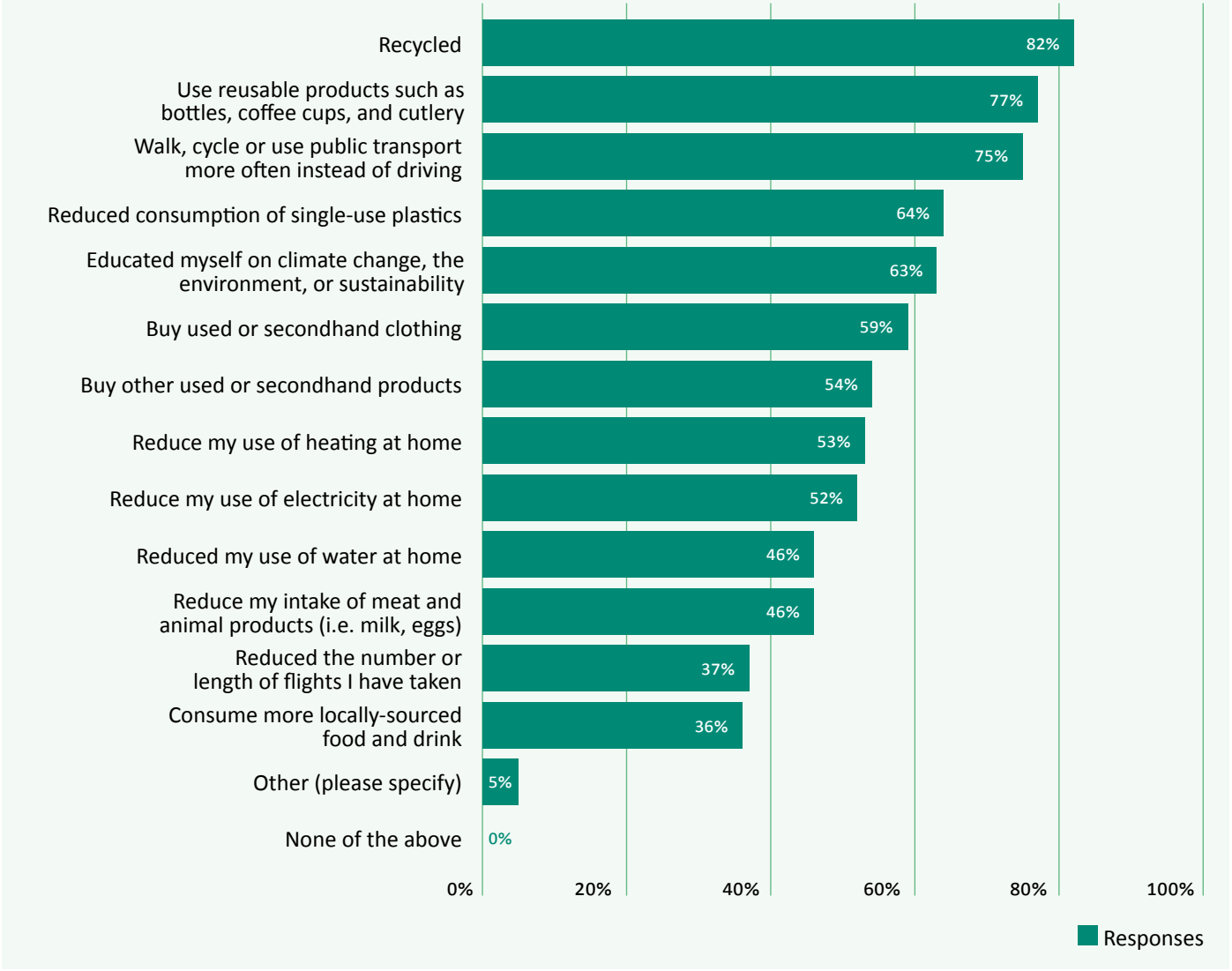
For each of these groups or individuals, please rate to what extent you think they are doing enough to tackle climate change. (n=117)



More than half of our respondents (52%) felt they were doing at least enough, as individuals, to tackle climate change, more so than every other group mentioned. The greatest proportion of our respondents felt that the society as a whole is not doing enough to tackle climate change, with 78% of respondents saying society is not or almost doing enough. Universities and students' unions were perceived more favourably by comparison, with 45% of respondents thinking they were doing at least enough, respectively.

Behaviour and Lifestyle Changes

Which of these steps have you taken with the intention of reducing your individual contributions to climate change? (n=114)



> **"You can always try and take small individual actions, but you kind of know it's not having really that much effect, and it feels like people aren't taking it seriously […] If you sit and think about it, it feels like this issue which is almost impossible to tackle, just because of the scope of consequences."**

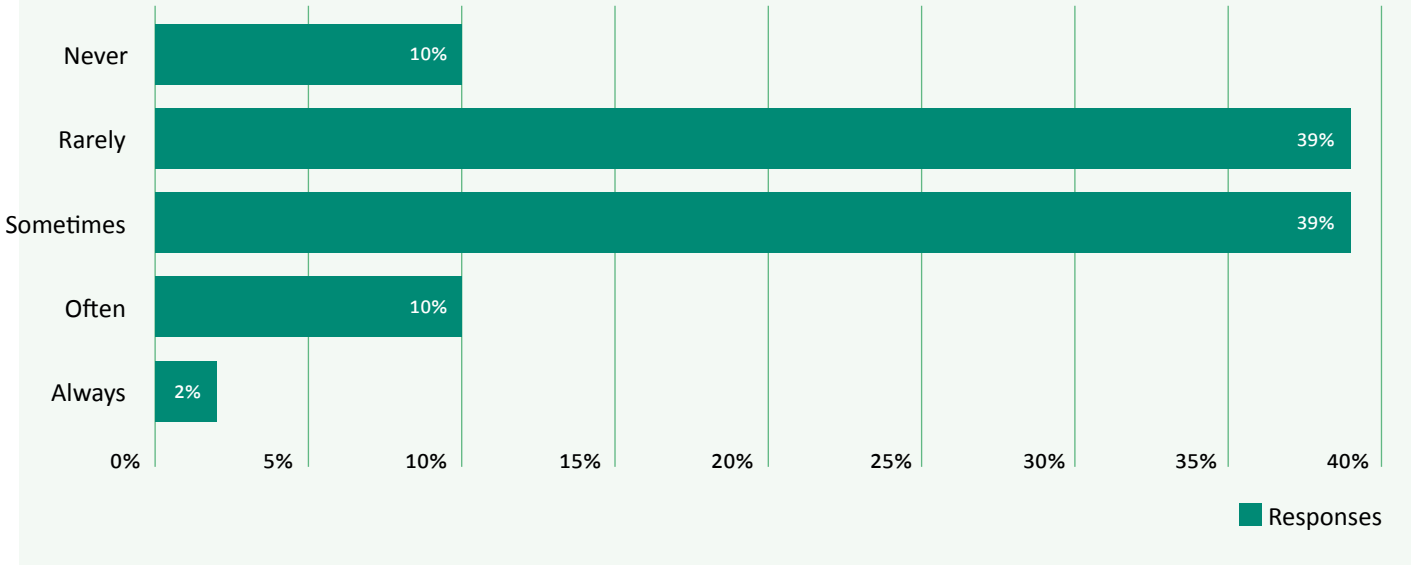
Focus group participant

> **"With all the tools and all the information out there, it made me realise as I said before, I can have a say in the matter with the way I act, with my own shopping."**

Focus group participant

Mental Wellbeing

How often does climate change negatively impact your mental wellbeing? (n=115)



While only 10% of our respondents said their mental wellbeing was never negatively impacted by climate change, 12% said it was often or always negatively impacted, leaving 78% of respondents saying their mental wellbeing was rarely or sometimes impacted. Inferences as to the severity of the impact on student wellbeing should not be made on the basis of this data. For instance, it may be that a participant rarely feels the negative impact of climate change on their mental wellbeing, but when they do, it is debilitating. Equally, a participant may often or always feel climate change-linked mental distress, but at a completely manageable level, which does not notably impact their quality of life.

It is important to keep in mind the ongoing debate in the field as to the extent that climate change anxiety – or indeed, climate change-linked mental distress in general - is a pathological response, and to which it is a logical reaction to a perceived danger. Given the purpose of this question was to establish how frequently respondents felt a negative impact on their mental wellbeing as a consequence of climate change, and the limitations in capturing severity here as described above, readers cannot make inferences from this data alone as to whether the reaction described is pathological, adaptive, or something else.

Further research to understand the relative negative impact of climate change on student mental wellbeing compared to other stressors will also help contextualise the extent of climate change-linked mental distress among students, and enable policymakers and institutions to support students accordingly.

> **"Aren't these sort of reactions to an emergency like this actually completely sane and rational? There's very interesting discussions to be had about that. But I'm also interested in the fact that it's not [happening in isolation] so to think about this and the pandemic, and the cost-of-living, and lots of issues going on in education at the moment, those things together kind of create a bit of a maelstrom of dread."**
>
> Focus group participant

A majority of our respondents reported participating in outdoor activities or otherwise connecting with their natural environment to support their physical or mental wellbeing. By a considerable margin, physical exercise and sports were the most popular forms of activity (reported by 88%), followed by gardening and horticulture (15%) and wildlife appreciation activities, such as birdwatching (7%). Notably, "physical exercise and sports" comprised approximately fifteen different activities, varying from lacrosse to canoeing and mountaineering. As there is a well-evidenced connection between physical exercise and improved mental wellbeing, it is possible this plays a moderating role in shaping the impact engaging with nature has on our respondents' wellbeing. Further research could determine the relative importance of the connection to nature and the physical element of these activities in providing any wellbeing benefits.

17% of our survey respondents reported using outdoor activities and exercise with the aim of coping with negative thoughts, feelings and experiences associated with climate change. Other common themes were reducing their individual contributions to climate change (25%), talking to loved ones about their concerns (13%), and using mindfulness techniques and positive psychology (13%) as means of coping. On the latter, it is important to note these measures are self-reported; we do not know which specific techniques respondents are utilising, whether they are done with any professional support or supervision, or if they are part of a wider programme of treatment. 16% of respondents said they did nothing to help them cope, but only 6% said they didn't feel the need to do anything.

One focus group discussed the value of promoting "simple" and "accessible" activities, such as walking, swimming, or keeping plants, as a means of connecting with nature without much money or technical ability required. Activities that are seemingly "accessible" may in actuality be challenging or impossible for some students. This led to a wider discussion about the need for such activities, especially when provided with the aim of supporting good wellbeing, to be designed with a wide variety of backgrounds in mind.

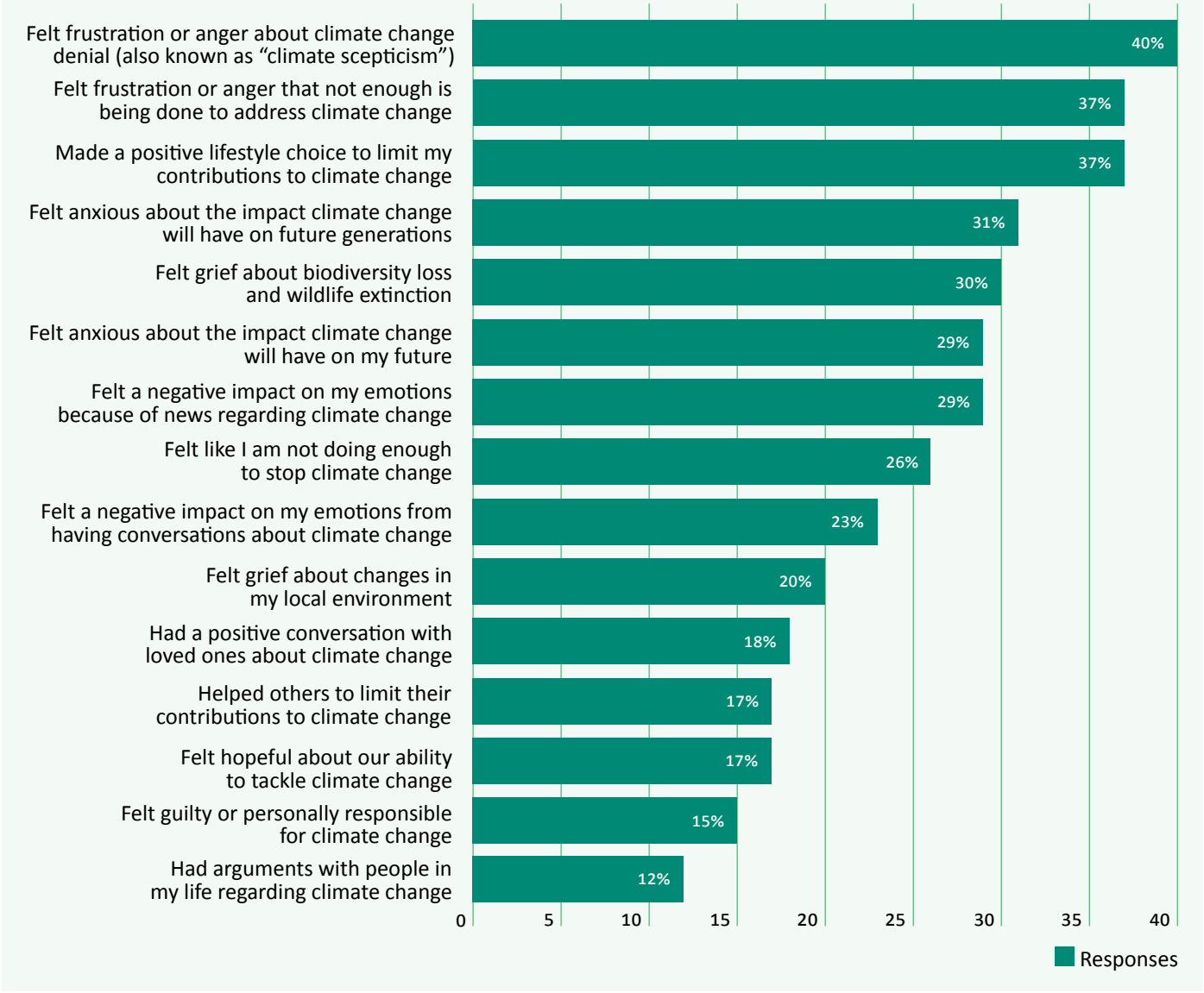
"I'd love to take part in our veg society, growing things in the communal garden, but I have limited dexterity and when I've tried stuff like that in the past it caused me a lot of pain. It's a shame because I find it to be really rewarding and soothing at the same time. I wish there was a way for me to get more involved – I'm sure there was – but we never really explored it."

Focus group participant

"Some of the most positive, uplifting times of my life have been camping when I was a child, but now I'm grown up and away from home, I can't afford all the equipment myself. It's hard to get into it again when entry comes with such a big price-tag."

Focus group participant

What proportion of our respondents often or always experienced the following thoughts, feelings or behaviours in the last four weeks? (n=110)



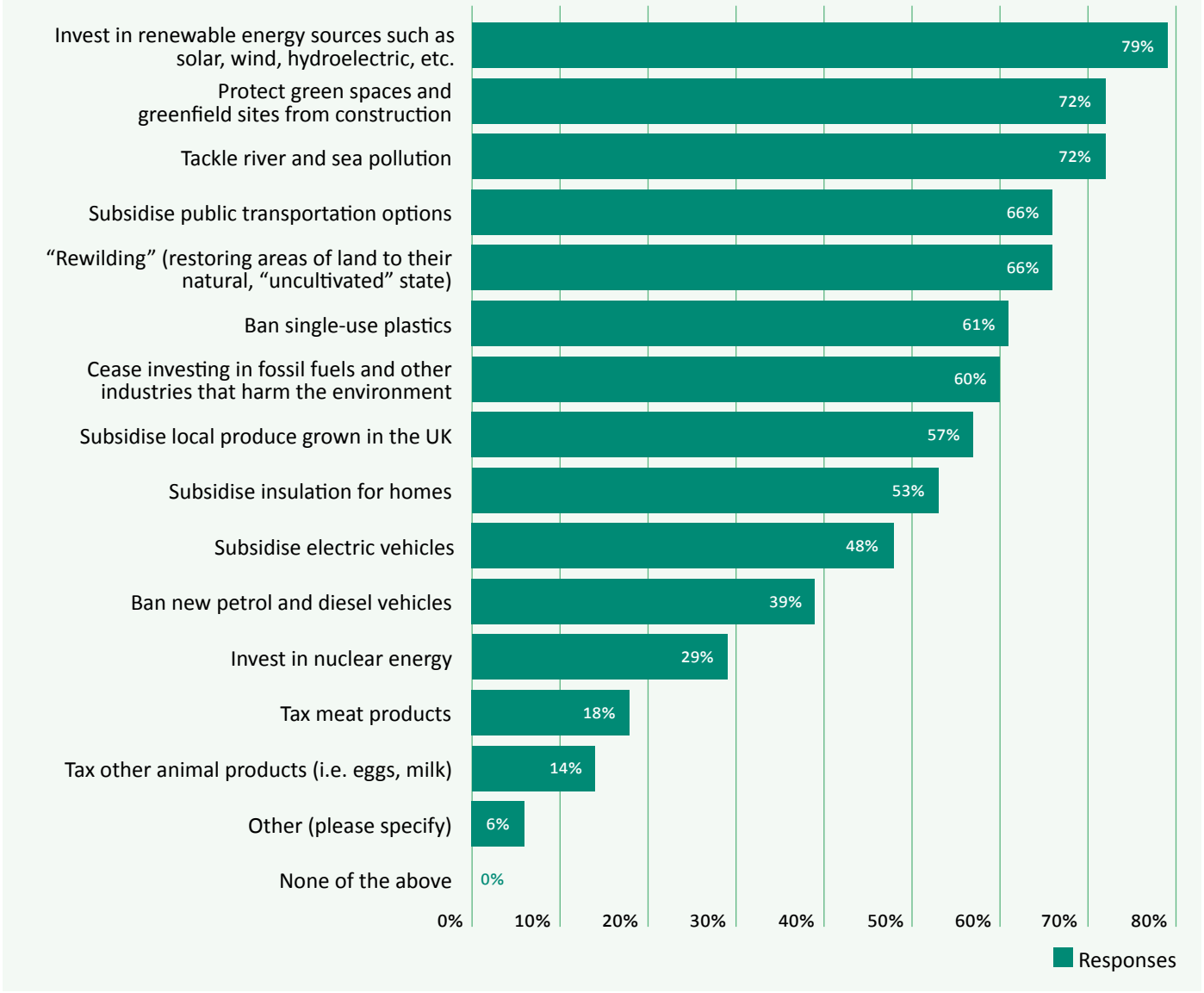
We presented respondents with a list of thoughts, feelings and experiences they associated with climate change, and asked how frequently they had occurred in their life the preceding four weeks. These fifteen options were drawn from a combination of existing research and thematic analysis of our focus group transcripts.

The two answers that the lowest proportion of our respondents had often, or always, experienced or felt over the preceding four weeks were "helped others to limit their contributions to climate change" (15%) and "felt hopeful about our ability to tackle climate change" (12%), representing two of our four "positive" answers. The other "positive" option, "had a positive conversation with loved ones about climate change" at 20%, which made it the fifth-least common answer experienced "often" or "always".

> **"The thing is for me, as an international student, my family and I are already experiencing the impact in a very big way. Even stuff like there being less wildlife; their behaviour has changed, we don't see them as much. I know their habitat is being destroyed but a lot of it feels so out of our hands, you know? We aren't making those emissions at home."**
>
> Focus group participant

The role of the United Kingdom government

Which of these steps do you believe the United Kingdom government should take to address climate change? Please check all that apply (n=106)



We were keen to understand our participants' perceptions of the UK government's response to climate change, including additional steps they believe the government should take and what they think the government is doing successfully. 87% of our survey respondents felt that tackling climate change was mostly or completely the UK government's responsibility, second only to intergovernmental bodies (such as the United Nations) at 94%. As such, there is potential scope for the government to have a key, positive influence in supporting student mental health and wellbeing, as far as climate change is concerned, in the eyes of our student participants.

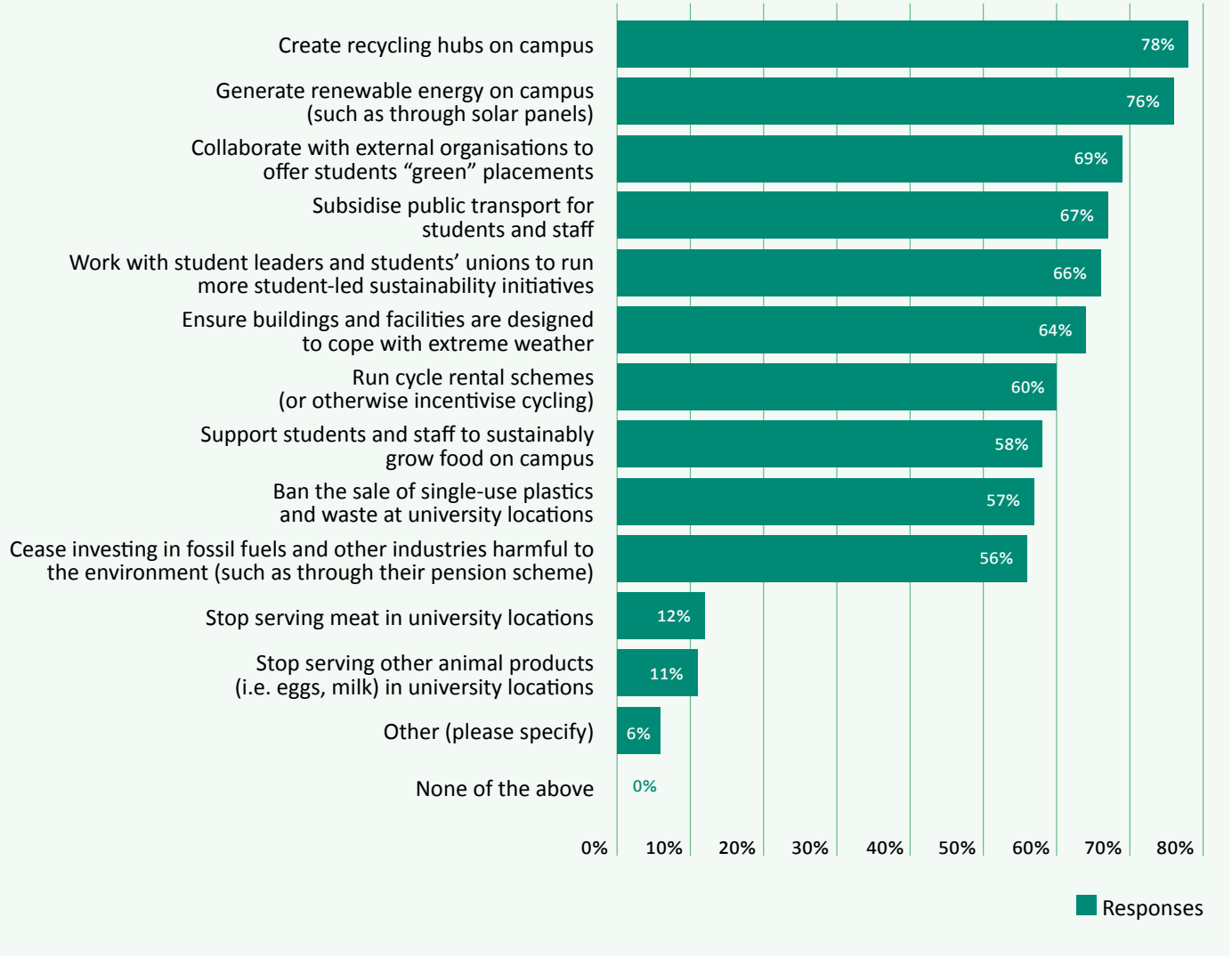
We presented respondents with a selection of new and existing policy, legislative and regulatory measures to tackle climate change, and asked them which they would like to see adopted by the UK government. These measures are either current or previous government policy, have been used in local or devolved government settings, or have been explored in scholarly literature as potentially effective measures to mitigate climate change. The most popular measures were "investing in renewable energy sources such as solar, wind, and hydroelectric" (79%), "protecting green spaces and greenfield sites from construction" (72%), "tackling river and sea pollution" (72%) and "subsidising public transportation options" (66%).

When we asked respondents what other steps they would like the government to take to address climate change using an open-answer field, the most common themes were education, financial levers (such as taxation), further utilising renewable energy, and acting with greater urgency, in descending order. This need for greater urgency in particular resonated with our focus group participants who spoke considerably on the need for urgent action, and leadership by the government (among others) to see that action through. More broadly, there was consensus among our focus group participants that the government was not doing enough to tackle climate change, while approximately 76% of survey respondents felt the government was doing less than enough.

> **"I think we're in that very strange place now where just as we need urgency and a complete shift. We've also got people who are really feeling that despondency and that lack of empowerment, that anyone's listening to them and gonna help them achieve what they want to achieve."**
>
> Focus group participant

The role of universities

Which of these steps do you believe Universities in the UK should take to address climate change? Check all that apply (n=103)



One of the supporting aims of this research was to determine what student respondents thought about their university's handling of climate change. As our evidence base so far is supporting the hypothesis that climate change has a negative impact on student mental health, and given the fact that many universities are making student mental health a key strategic concern, it follows that institutions should have an interest in how students want them to tackle climate change. Our first question under this topic explored interventions universities could take, strategically or operationally, to tackle climate change, with answers drawn from a range of existing literature. Students were able to contribute their own answers through an open text field.

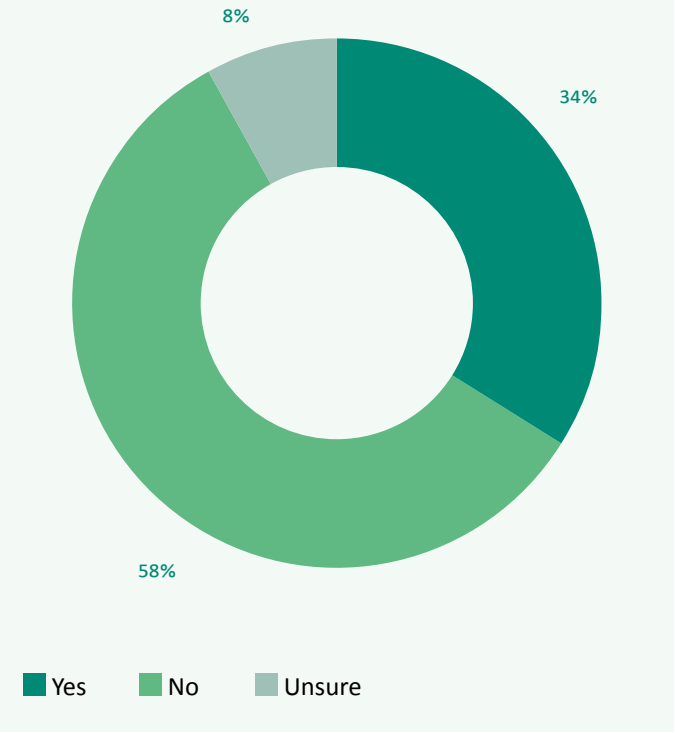
By far the least popular of the provided options were to "stop serving meat at university locations" (12%) and to "stop selling other animal products (such as eggs and milk)" (11%). This is particularly intriguing given the significant attention the national media has given to the decision of select universities and students unions' to ban meat on campus (Samuel, 2022; Badshah, 2023; Sellgren, 2019). It is worth noting the limitations of our small sample size here and the democratic processes that these decisions typically go through in students' union contexts.

Participants were then given the opportunity to supply their own ideas through an open answer field, being asked “what other steps would you like universities to take to address climate change, if any?”. The most common suggestions concerned integrating climate change and sustainability into the curriculum (25%), followed by making reusables and refill stations more available on campus (22%) and “greening” facilities (19%), such as by collecting rainwater to flush toilets, switching lights off when not in use, and developing more green spaces on campus.

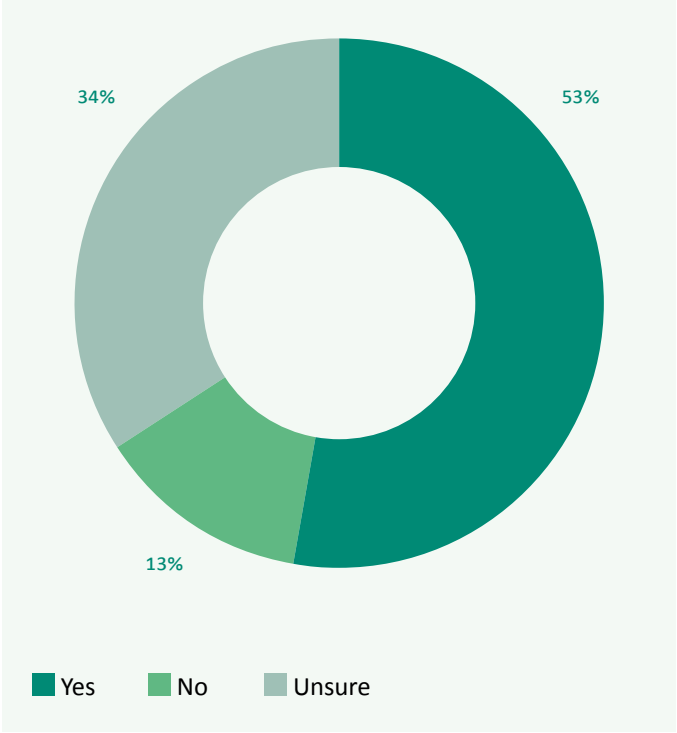
Finally, we asked participants what they felt their university was doing well to tackle climate change, if anything. The most common response themes were providing and facilitating the use of reusable everyday items (40%) and educating students about climate change (23%). Interestingly, education and reusables were the two most common themes respondents said they would like their university to address in order to tackle climate change, but they also were most commonly perceived as the areas where universities were already doing well.

Sustainability in the curriculum

Do you learn about sustainability, the environment, and climate change in your course? (n=103)



If not, would you want to learn about sustainability, the environment, and climate change as part of your university course? (n=83)



The majority of our survey respondents reported that climate change, sustainability and the environment were not a component of their curriculum. Of that majority, only 13% of respondents said they would not like to learn about those subjects as part of their academic curriculum, while just over half (53%) said they would.

We then asked students who had learnt about climate change, sustainability and the environment as part of their curriculum how doing so made them feel. 50% of respondents to this question reported negative feelings including frustration, anxiety, hopelessness and sadness, comprising the largest response themes. Only two respondents reported feeling positive as a consequence of their studies, while three felt motivated or empowered to act by what they learnt.

We asked survey participants “What , if anything, would you like to learn more about regarding sustainability, the environment, and climate change?” Among 31 respondents, the most common response theme concerned individual actions they could take to prevent or mitigate climate change (n=11), followed by existing good practice in other communities, countries, and sectors (n=10), and how their academic field of study could contribute to climate change prevention and mitigation (n=7).

Future Research

As previously discussed, our limited sample size and our non-randomised sampling approach mean that there is scope for further research, exploring the same questions with a larger, more representative sample of students.

We also discussed how, while our data gives some indication as to the frequency of climate change-linked mental distress among our respondents, it does not serve to give a true indication of severity. Thoughts, experiences and behaviours in response to climate change-linked distress may show a negative impact and response but again, future research would benefit from utilising a sense of scale. Researchers and clinicians alike may also benefit from identifying the boundaries of pathological and adaptive climate change-linked distress, establishing the extent to which lower-level distress may in fact be a healthy response to a threatening issue. There is also plenty of scope for research into the impact of climate change on student mental health at a clinical level and within the context of formal clinical care.

Our participants showed a keen interest in understanding how different student groups would be varyingly impacted by climate change-linked mental distress. Mentioned specifically in our focus groups were international students, disabled students, students from a lower socio-economic background, and student parents. Our focus group participants anticipated that each of these student demographics could face climate change-linked mental distress differently due to unique aspects of their own lived experience, such as coming from a country already visibly impacted by climate change, or not being able to afford “sustainable” consumer products.

There are mental and physical health benefits to accessing green spaces and the natural world. Green social prescribing may form a valuable part of a wider programme of university mental health support. There is scope for piloting mental wellbeing projects which serve a dual benefit of supporting good student mental wellbeing while also improving and protecting local environments and ecosystems, such as gardening, tree-planting or beach-cleaning.

Our findings suggest respondents enjoy green spaces and the natural world in a variety of wider ways to support their wellbeing. Examples include physical exercise, wildlife appreciation, and creative pursuits. Future researchers and universities may be particularly interested in whether green social prescribing will have a positive impact in addressing negative thoughts, feelings and behaviours associated with climate change among students.

A clear theme emerging from our focus groups and survey was that respondents felt powerless to influence the trajectory of climate change, leaving them hopeless and pessimistic. These sentiments were also common among respondents who had studied sustainability as part of their curriculum, who often reported negative feelings arising from their learning. Further work could be done to explore the scope of this problem across the wider student population and begin to explore potential remedies, such as building psychological wellbeing into curricula where climate change is a topic.

Conclusion

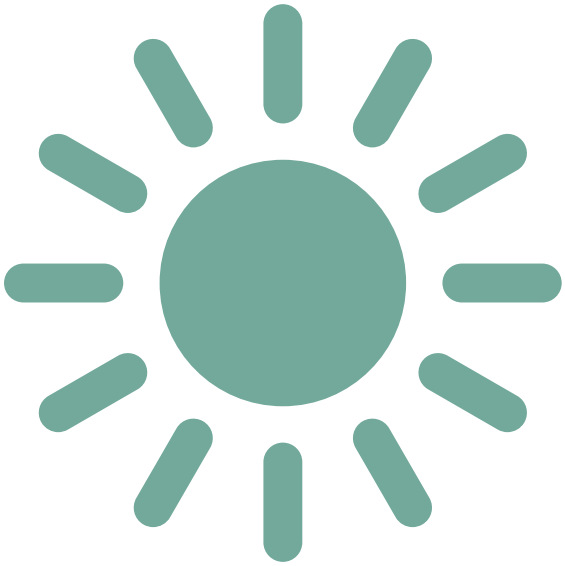
This report provides a new insight into how our student respondents believe climate change impacts their mental health and wellbeing, by bolstering the case for further research, highlighting new areas of inquiry, and informing our recommendations.

Over seven in ten (72%) are quite or very concerned about climate change, and almost seven in ten (68%) of our respondents believe we are already feeling its effects. Despite this, only half of our respondents reported understanding what universities (50%) and the UK government (48%) are doing to combat climate change, while our focus group participants were unanimous in their belief that the government is not acting quickly or comprehensively enough to avert climate disaster. The findings show that our respondents perceive climate change to have a negative influence on their mental wellbeing, impacting their thoughts, emotions, and behaviours. Participants across our focus groups and surveys described a range of emotions including hopelessness, grief, and frustration, and recounted different strategies they utilised to cope with these negative feelings. However, our focus group participants discussed the possibility that these negative feelings were a rational response to the challenges posed by climate change.

We explored the positive role that green spaces and the natural world can play in supporting student mental health and wellbeing. Our participants enjoy a broad range of activities in nature and green spaces, both with the explicit goal of bettering their wellbeing or purely for the sake of leisure. Our literature review also unearthed a growing body of research concerning green social prescribing, and the role of nature in supporting mental wellbeing more broadly.

A minority of our respondents had learnt about sustainability and related issues as part of their academic curriculum. Of those that had not, over half said they would like the opportunity. However, we found that respondents who covered these topics within their curriculum reported negative thoughts and feelings associated with their learning, including hopelessness, anger, and a lack of direction. Universities are centres of knowledge production and innovation and are critical to the UK's role in fighting climate change. Therefore, it is crucial that universities build good mental wellbeing into the curricula where climate change is concerned to prepare students for careers in sustainability that do not compromise their health and wellbeing.

While some of our findings are certainly troubling, we also have much to be optimistic about. Our participants, as a collective, are civic-minded, proactive, and want to make a meaningful contribution to tackling climate change. Participants in our focus groups discussed at length the disproportionate impact of climate change on the global south and the need for sustainable consumer goods which are accessible and affordable. Our participants have a keen interest in seeking out positive developments in our wider efforts to tackle climate change, and are more likely to want to learn about sustainability through their curriculum than not.



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About Student Minds

Student Minds is the UK's student mental health charity. We empower students to build their own mental health toolkit to support themselves and their peers through university life and beyond. We challenge the higher education sector, health sector, and government to make student mental health a priority.

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