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Student responses to the climate crisis: managing distress and exploring support systems

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Abstract

Purpose – This study explored how undergraduate students familiar with the climate crisis navigate climate-specific challenges in their personal lives, an area where knowledge is extremely inadequate.

Design/methodology/approach – The authors examined a broad range of adaptive (i.e. helpful) and maladaptive (i.e. unhelpful) strategies that students employ to manage their emotions concerning climate change, as well as resources that could help them adjust to the climate crisis. Quantitative and qualitative survey data were collected.

Findings – Students used various adaptive strategies to manage their emotions, including recreation, self-care, eco-friendly behaviors (such as changing habits, advocacy and volunteerism), personal and professional social support and actively seeking knowledge and positivity to empower themselves while participating in climate action. Furthermore, students suggested that having more professionally trained social support and

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resources for engaging in sustainable action would better help them adapt to the challenges posed by climate change. Gaining insights into effective methods for regulating climate impact can facilitate preventative and treatment strategies to cope with significant climate distress in young people.

Practical implications – The authors hope that the current lessons can inform pedagogy and help develop evidence-based mental health resources that equip current and future generations to effectively adapt to and mitigate the climate crisis.

Originality/value – The current findings shed light on eclectic approaches that university students adopt to manage their emotional responses to climate distress. They highlight that most students feel a dearth of resources available to them to effectively manage their personal climate distress and contribute to sustainability.

Keywords Sustainability education, Climate change, Undergraduates, Affect regulation, Climate management resources

Paper type Research paper

Climate change distress in young people

The climate change crisis has raised concerns globally; however, those born in recent decades are increasingly aware of its impact and trajectory (Hickman *et al.*, 2021; Cunsolo and Ellis, 2018; Ojala, 2013; Ojala *et al.*, 2021; Stokols *et al.*, 2009). Recent research has provided a well-documented understanding of the emotional distress surrounding climate change among the young generation (e.g. Comtesse *et al.*, 2021; Jones and Lucas, 2023; Ogunbode *et al.*, 2021; Pihkala, 2022). For instance, in a large survey involving ten thousand young people (ages 16–25), 59% reported being very worried about climate change, indicating there is a toll that the climate crisis takes on them (Hickman *et al.*, 2021). The way people regulate their emotional responses to climate challenges has consequences for their personal health and climate action efforts (Davidson and Kecinski, 2022; Lohani *et al.*, 2025a; Norgaard, 2006; Ojala, 2012a, 2012b; Ojala, 2013; Reser and Swim, 2011; van Valkengoed and Steg, 2024; Zaremba *et al.*, 2022). Individuals' coping responses to environmental challenges vary widely; however, a limited understanding exists of the various ways individuals manage their reactions to the climate crisis. In particular, the mechanisms university students use to regulate their climate distress are unclear, especially those learning about climate change and sustainability in their coursework. The current work seeks to address this knowledge gap by investigating how undergraduate students cope with their climate distress and what resources they feel would support their regulation efforts. To this end, we use quantitative survey data combined with qualitative coding of open-ended responses to capture how students cope with their psychological responses to the pressing global issue of climate change. First, we provide a brief review of the literature on affect regulation in the context of climate change, followed by details of the current study.

Lessons from affect regulation literature

Existing literature indicates that individuals can show meaningful variability in their affective reactivity to climate change. In addition to reacting to climate stressors, people also attempt to alter their responses with the intention of coping with the distress; however, these theoretical perspectives are still under development (Ojala, 2012a, 2012b; Reser and Swim, 2011). Such efforts to intentionally modify the types of affective experiences are referred to as *deliberate affect regulation* (Parkinson and Totterdell, 1999). The strategies individuals use to adapt to a potentially distressing challenge have both short-term and long-term effects for not only personal adaptation but also climate change mitigation efforts (Lohani *et al.*, 2025a). Scholars are just beginning to understand the various ways people process and cope with the escalating climate crisis. It is vital to identify which approaches are beneficial or

detrimental to implement preventive measures and design future interventions that assist individuals in adapting to and mitigating the psychological impacts of climate change.

Even though the affect regulation literature specific to the climate crisis is in its infancy (Ojala, 2012a, 2012b; Reser and Swim, 2011), we focused on approaches that may potentially apply. We adopted available theoretical and empirical literature from affect regulation literature more broadly as the theoretical framework for the current work and contextualized it to climate change. One approach that affective scientists use is to distinguish between strategies based on their effectiveness in achieving one's goals and their benefits for wellbeing (Aldao *et al.*, 2010; c.f. Bonanno and Burton, 2013). The strategies that help fulfill an individual's motives and promote wellbeing are known as *adaptive strategies*. In contrast, there are ineffective strategies that do not support regulatory goals and may negatively affect well-being, referred to as *maladaptive strategies*. In relation to climate change, the following approaches were identified based on existing work: social support (Smith *et al.*, 2012), stress relief (e.g. Denovan and Macaskill, 2017; Powers and Engstrom, 2020) and eco-conscious activities (Lohani *et al.*, 2025a).

Social support is reaching out to others to seek help in managing one's emotions, and it can be effective in regulating stressors and improving psychological health (Heiy and Cheavens, 2014; McMahon and Naragon-Gainey, 2019). Support relevant to climate change can come from many sources (Smith *et al.*, 2012). Some seek assistance from their loved ones, such as family, romantic partners and friends. Others join support groups with individuals facing similar challenges, which have proven to be effective. Talking to mentors from academic, religious or professional life can also be beneficial. Additionally, professional mental health support can be effective in addressing climate change.

Stress relief is another approach to managing distressing situations, encompassing any effort to comfort oneself by addressing one's needs and recovering from negative states (e.g. O'Connor *et al.*, 2021). It includes various well-known methods of self-care and recreation. For example, engaging i*n self-care* or personal wellness activities like meditation, exercise, art, music, or interactive games can help rejuvenate and support wellbeing concerning climate change. Relaxation and calming techniques (Gruber *et al.*, 2013) can effectively build mental resources to cope with stressors such as climate change (Lohani *et al.*, 2025a; Pihkala, 2022; Powers and Engstrom, 2020). *Recreational* or leisure activities are enjoyable pursuits undertaken during free time, acting as a buffer against stress (Denovan and Macaskill, 2017; Iwasaki, 2006; Iwasaki and Mannell, 2000).

Individuals can also actively engage in efforts to tackle the challenges of climate change, which are collectively referred to *as eco-consciousness* (Lohani *et al.*, 2025a; Sánchez and Lafuente, 2010). This encompasses all initiatives to gain knowledge about climate change, alter individual behaviors (e.g. reducing one's carbon footprint), or influence others' behaviors (e.g. spreading awareness) with the intention of supporting sustainability and climate action (Mathur and Kumari, 2013; Sánchez and Lafuente, 2010). Extensions of eco-conscious behavior include actively addressing the climate crisis through advocacy and volunteer work and encouraging others to adopt habits that support climate initiatives. Such climate-friendly actions can empower individuals to solve the environmental challenges they face, fostering empowerment.

In contrast, there are maladaptive ways to deal with negative emotions and anxiety associated with the climate crisis. *Experiential avoidance* is a commonly adopted approach that involves withdrawing or shutting down when one struggles to manage emotions effectively (Brans *et al.*, 2013). Another strategy is to completely divert attention from the challenging problem by *distracting* oneself with other tasks (Augustine and Hemenover,

2009; Lohani *et al.*, 2025b; Webb *et al.*, 2012). Another maladaptive strategy that is employed to experience some reprieve is *substance abuse* to harmful substances that does not resolve the distress and can further escalate the underlying problem and addiction (Lohani *et al.*, 2025a). Emotional distress can also cause a *lack of clarity*, which can further escalate mental health issues and engagement in maladaptive behaviors (such as addiction). Relatedly, students can struggle to manage their emotions or have given up on trying to manage their climate related emotions. Such challenging efforts are referred to as *difficulty in regulating emotions*. Sometimes, this can come off as stoic numbness. However, we are just beginning to understand maladaptive approaches to managing climate distress and much remains to be understood about unhelpful approaches people may adopt to manage their climate distress.

The current study

The current study examined a broad range of adaptive (i.e. helpful) and maladaptive (i.e. unhelpful) strategies that undergraduate students use to regulate their emotions in the context of climate change, as well as resources that could assist them in adapting to the climate crisis. The key research question for this study was: how do students manage their emotional responses to the realities of climate issues? Students were asked to indicate whether they use any of the commonly reported strategies based on previous research (e.g. Brans *et al.*, 2013; Heiy and Cheavens, 2014; McMahon and Naragon-Gainey, 2019; Smith *et al.*, 2012). For thoroughness, we also included open-ended questions to explore additional strategies students might use. To enhance understanding for future progress, a second research question was considered: What resources do students wish were available to them? Students could provide optional responses that they would find helpful. To address these questions, we targeted a relatively large representative group of students, including those whose degree programs focus on climate science and climate change impacts and those whose degree programs have little to no formal instruction about climate issues (see Tables 1 and 2 for details on students' majors and courses they were enrolled in).

Method

Participants. A total of 548 students from a large university in the USA took part in this study. The mean age was 22.29 years (SD = 3.41). Of the participants, 63.6% were female, 32.7% were male, 2.67% identified as nonbinary and 1.1% were classified as others. Self-reported race indicated that 8.6% of participants were Asian, 69.3% were Caucasian, 5.1% were Latinx/Hispanic, 12.3% identified as multi-racial and 3.1% opted for the option other. Participants received course credit for their involvement in the study. All who participated in the study had a 100% completion rate. All procedures were approved by the Institutional Review Board at the University of Utah.

Measures

Regulation approaches. To examine affect regulation strategies used by students, both Likert rating scales and open-ended questions were used.

Likert scale-based affect regulation strategies. Participants were asked how they dealt with feelings related to climate change. In a structured format, they were presented with, "When I am feeling particularly anxious or upset about climate change, I do the following" and options presented in Table 3. For instance, engaging in self-care (e.g. meditate, attend to a pet, etc.). Participants reported each item on a scale of *Never (1)* to *A lot (5)*. The measure had good reliability with an alpha of 0.83 and the Guttman lambda of 0.85. Furthermore, in

Table 1. Information about the diverse majors from which students were sampled

Majors	% of students
Environmental & Sustainability Studies	27.92
Communication	27.01
Multiple majors	19.16
Undecided	4.20
Health Society & Policy	2.01
Parks, Recreation, & Tourism	1.82
Urban Ecology	1.82
Political Science	1.64
Marketing	1.46
Biochemistry	1.09
Anthropology or psychology*	0.91
Architectural studies, business administration*	0.73
Chemistry, information systems, operation and supply chain, social work or sociology*	2.74
Accounting, art, biomedical engineering, civil and environmental engineering, computer science, economics, data science, entrepreneurship, film and media arts, finance, geography or management*	4.74
Applied mathematics, art teaching, atmospheric sciences, ballet, chinese, design, electrical engineering, games, gender studies, geoscience, graphic design, history, international studies, mechanical engineering, physics*	2.74

Note(s): *The % students were only in one of the mentioned majors (e.g. 0.91% of students were in Anthropology, and another 0.91% were in Psychology)
Source(s): Tables created by the authors

Table 2. The courses the students were from and undergraduate year they were currently in when they completed the study

Course name	% of participants
Introduction to Quantitative Communication Research	32.12
Introduction to Environmental Science	31.39
Global Climate Change	19.89
Environmental science capstone course	9.49
Two of these listed courses	6.02
Three of these listed courses	0.36
Climate Change and Lost Cities	0.73
Undergrad year	**% of participants**
Freshman	14.10
Sophomore	22.53
Junior	27.29
Senior	33.52
Other (e.g. non-traditional, returning student)	2.75

Source(s): Tables created by the authors

Table 3. Descriptive information on structured and open-ended strategies was reported by students ($n = 548$). For structured questions only, if participants reported using a strategy at all (including *never* to *a lot*), then it was included in the counter below

Type	Strategies	Count	%
Structured items			
Adaptive	Engage in self-care (e.g. meditate, attend to a pet, etc.)	461	84.12
	Engage in volunteerism	394	71.90
	Engage in advocacy to affect change	403	73.54
	Change own behavior (e.g. diet, consumption habits)	466	85.04
	Encourage change in others' behavior (e.g. diet, consumption habits)	321	58.58
	Talk to a family member, partner or friend	450	82.12
	Recreation (exercise, watch TV/movies, play video games, make art or music, etc.)	486	88.69
	Talk to a mentor (academic, religious, professional, etc.)	251	45.8
	Talk to a therapist or counselor	216	39.42
	Attend a support group (e.g. [*good grief circle*][a]	126	22.99
Mal-adaptive	Shut down / avoid topic	370	67.52
Open-ended student generated			
Adaptive	Learning about climate change	55	10.04
	Looking for progress to mitigate climate change	15	2.74
	Engage in climate action	53	9.67
	Planning and problem solving	5	0.91
	Positive reappraisal	3	0.55
	Social support	37	6.75
	Connecting with nature	26	4.74
	Recreation	21	3.83
	Mindfulness and acceptance	11	2.01
	Expressing through journalling and art	16	2.92
	Avoidance	37	6.75
Mal-adaptive	Lack of clarity and distress	19	3.47
	Substance abuse and behavioral addiction	6	1.09
	Non-emotional responses	31	5.66

Note(s): [a]It is an organized group specific to climate distress that has trained a facilitator to hold support group sessions at the university
Source(s): Tables created by the authors

other ongoing work, we are examining the validity of using these items to effectively capture how students regulate climate distress.

Open-ended affect regulation question. An open-ended question was also used to learn about other approaches that may have been employed by students. To capture those, students were asked, "*Are there other ways that you cope with your emotions related to climate change?*" Responses to this open-ended question were gathered and coded. Refer to Table 4 for details on the coded affect regulation strategies and the supporting literature.

Open-ended institutional resources question. Another open-ended question focused on helpful resources. Participants were asked, "*What resources do you wish existed for better coping with your feelings about climate change, if any?*"

For both open-ended questions, there was no limit placed on the participants, and they could type as much as they wanted. No probing was possible, as it was all online survey-based data collection. The open-ended questions were kept broad to invite any responses participants may have to the raised question in the survey.

Table 4. Strategies coded from open-ended students' responses

Label	Definition	Citations
Adaptive strategies		
Learning about climate change	Strategies to gain knowledge about the causes and consequences of climate change	Lohani *et al.*, 2025a; Bord *et al.*, 2000; O'Connor *et al.*, 2002; Reser *et al.*, 2012; Zaremba *et al.*, 2022
Savoring progress	Efforts to look for positive news or information about climate change, in efforts to appreciate progress to mitigate climate change	Geraci *et al.*, 2024
Engage in climate action	To engage in pro-climate behaviors, such as, advocacy, volunteerism and other sustainable action to mitigate climate issues and adapt	Lohani *et al.*, 2025a; Kelly *et al.*, 2022; Marhur and Kumari, 2013; Zaremba *et al.*, 2022
Planning and problem solving	Entails making plans to address the climate change problems	Lohani *et al.*, 2025a; Dietz *et al.*, 2007; Li and Monroe, 2019; Park and Ha, 2012
Positive reappraisal	Thinking of a positive interpretation of the climate situation	Lohani *et al.*, 2025a
Social support	Connecting with one's network to regulate affective responses to climate change	Heiy and Cheavens, 2014; Naragon-Gainey *et al.*, 2017; Smith *et al.*, 2012
Connecting with nature	Valuing one's natural environment and acknowledging what it offers humans	Lohani *et al.*, 2025a;c; Frantz and Mayer, 2014; Reser *et al.*, 2012
Recreation	Engaging in stress-relief techniques to unwind, such as exercise, relaxation and music, to manage climate distress	Lohani *et al.*, 2025a; Bernard *et al.*, 2022
Mindfulness and acceptance	Engaging in practices to exist in the moment with openness to ongoing emotional distress	Lohani *et al.*, 2025a, 2020; Pihkala, 2022b
Journalling and art	Expressing through engagement in art	
Maladaptive strategies		
Avoidance	All attempts to ignore the climate crisis	Lohani *et al.*, 2025a; Kovacs *et al.*, 2024; Zaremba *et al.*, 2022
Lack of clarity and distress	Dysregulated emotions and unclear state of being often associated with high distress	Lohani *et al.*, 2025a;
Substance abuse	Reliance of harmful substances that do not address or resolve the climate change problem	Lohani *et al.*, 2025a; Tomassini *et al.*, 2024
Non-emotional responses	A lack of emotional response to the climate crisis and associated disengagement	Lohani *et al.*, 2025a

Source(s): Tables created by the authors

Procedure. Participants completed the informed consent process as approved by the Institutional Review Board. They were informed that all responses would remain anonymous to encourage unbiased feedback. Data were collected from Fall 2023 to Spring 2024. Those who chose to take part in this study received a Qualtrics link for a completely online experience. They completed the informed consent process by using the online link to provide their voluntary consent to participate. All questions related to the study were answered in a self-paced manner. Participants could skip any questions they preferred not to answer.

Data analysis

For the quantitative affect regulation questions, a descriptive analysis was done to determine the frequency with which different approaches were used by the students. The qualitative open-ended responses were individually coded. A coding scheme was developed through an inductive approach informed by theoretical perspectives from affective science. Open-ended responses were examined and categorized into adaptive and maladaptive strategies, as shown in Table 3. These categories emerged from the data but were shaped by affect regulation literature (e.g. Aldao *et al.*, 2010; Brans *et al.*, 2013; Brockman *et al.*, 2017; Garnefski and Kraaij, 2006; Gratz and Roemer, 2004; Gross, 2015; Hine *et al.*, 2016; Heiy and Cheavens, 2014; Lohani *et al.*, 2025a; McMahon and Naragon-Gainey, 2019; Webb *et al.*, 2012). This rich literature provides clear guidelines for different affect regulation strategies. To code students' descriptions, an expert in affect regulation with 18 years of experience in the field used the definition and sources presented in Table 4 to categorize all the data. Coding was non-exclusive; each response was coded for as many strategies as applicable. The coded strategies were then summarized across participants (e.g. how many participants reported the same strategy) to understand how strategies identified in open-ended items aligned with those assessed through multiple-choice items.

Results

Table 3 provides descriptive information on structured and open-ended approaches identified overall in the student sample. Figure 1 presents details of the responses made by students and Figure 2 presents a summary of these strategies based on the structured Likert-based questions.

Likert scale-based management strategies summarized

The Likert-based items were reviewed for frequency of use. Among all the fixed options, students reported engaging in *recreation* as the most frequently adopted (89%) strategy to manage their climate emotions. Another stress-relief-related strategy that was frequently adopted (84%) was engaging in *self-care* actions (e.g. meditation, attending to pets).

An alternative adaptive self-regulation approach was *changing one's own behavior* (e.g. diet, consumption habits), which was the second most frequent strategy (85%). Thematically related, eco-conscious strategies were also frequently adopted, such as engaging in advocacy to affect change (74%), engaging in volunteerism (72%), and attempting to change others' behaviors (58%).

In another line of engagement with *social networks*, students communicated with their personal network (82%) or their professional networks, such as mentors (46%), therapists, counselors (39%) or support groups for managing their climate emotions. In contrast, 67% of students reported avoidance strategies, such as shutting down, which are traditionally considered maladaptive.

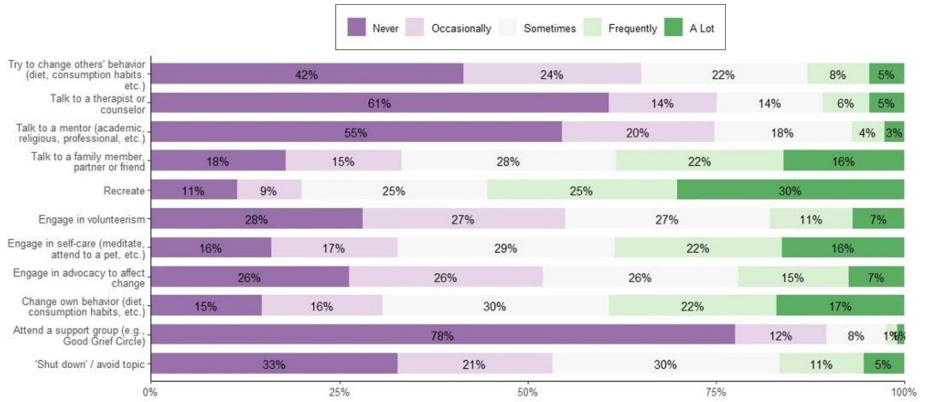

Figure 1. Details of the responses made by students to the structured Likert-based questions
Source: Figures created by the authors

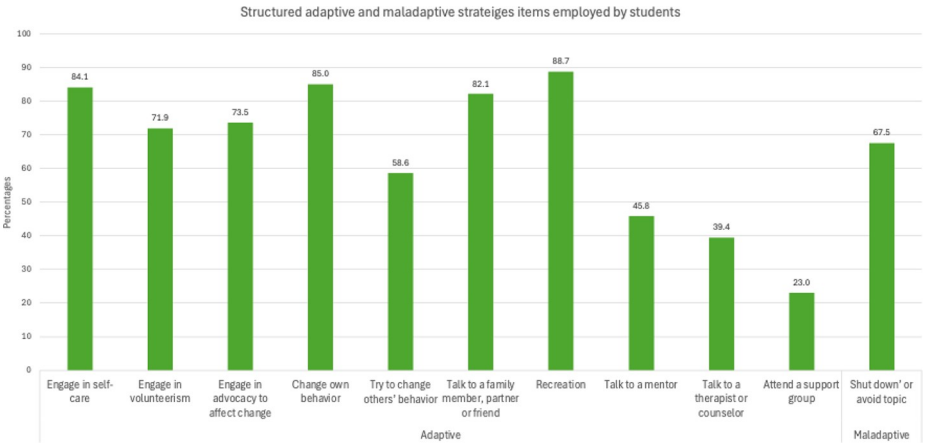

Figure 2. Percentage of adaptive and maladaptive strategies implemented by students when assessed via the structured Likert-based questions
Source: Figures created by the authors

Coded open-ended responses to climate change

The responses from students are summarized below. See Table 3 and Figure 3 for a comparison of the type and frequency of students who mentioned affect regulation strategies.

Adaptive strategies

Recreation. Many individuals mentioned *self-care*, such as exercise, going for walks, etc. For example, "I like to do a lot of self-care to cope with my emotions. Whether it is from exercising, being with my pets, and learning how to take care of myself."

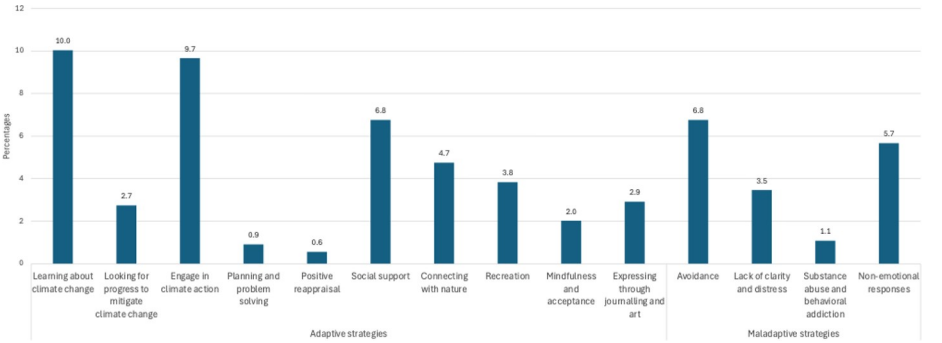

Figure 3. Open-ended affect regulation strategies reported by students
Source: Figures created by the authors

Mindfulness and acceptance. On a related note, some discussed using mindful strategies that help manage their climate distress. For instance, "I find solace in engaging with nature, practicing mindfulness techniques, and channeling my emotions through creative outlets like art or writing. These methods help me process feelings surrounding climate change and provide a sense of personal empowerment amidst the overwhelming scale of the issue." Some also noted that accepting it is an unavoidable situation beyond their control, which provides comfort to them.

Engaging in climate action. Many students noted that they were involved in various types of climate action. Some talked about how the climate change crisis motivates them to act: "Take Initiative: Take part in environmentally friendly activities. Participate in community clean-up activities, volunteer for environmental issues, and join local projects." Many discussed several eco-friendly efforts they themselves make to find comfort in doing their part (e.g. adopting a vegan diet, reducing carbon footprint and making environment-friendly choices). Several engaged in activism and volunteered to cope. Some mentioned being politically active and involved in the community: "I just try to stay involved politically, and I attend community meetings. This helps me focus on what I can do even though it's a very small part."

Planning and problem-solving. Less than 1% talked about *planning and problem-solving* efforts they take to feel they have control, e.g. "I think about what I need to learn and motivate myself to not wallow because wallowing will not help out anything" and "Think about my future job, which will hopefully have something to do with reducing humans impact on our environment."

Social support. Many students mentioned many ways in which they seek social support (such as, venting, talking about feelings around climate change, being with their friends and pets). Some talked about raising awareness and talking to friends and family to have open conversations: "I try to spark conversation and spread information as much as possible; talking to people really helps, especially when you feel so hopeless." Another highlighted the benefits of talking to like-minded people, which was helpful: "Finding other people that feel the same way and talking about it with them is meaningful and a good way to cope."

In addition to the open-ended responses that aligned with the fixed Likert-scale options, we also had novel strategies that students described adopting, which we captured next.

Learning about climate change. Students noted that education has been beneficial in various ways. As one student said, "Continuing to educate myself is a way I cope." Another talked about education related to their community, which helps: "Educate myself on issues within my own community and learn how to help." Education was frequently mentioned as providing hope and was also linked to being a pathway to bring about change: "Honestly, just going to school and learning about how I can personally make a difference and hopefully go out into a field where I can help." Some, in particular, discussed pursuing research in climate science to understand the facts and make a change. "I like to do research about the specific problems about climate change that are causing my emotions. This helps me to fully grasp the situation and understand it better." Thus, education was described as a way of feeling less helpless and more empowered.

Looking for progress to mitigate climate change. Some talked about efforts to find hope ("constantly looking for hope") and positive information. For example, "Looking up positive science news is a big coping mechanism for me!"; "I have stopped paying attention to doom and gloom climate news, and have focused on reading pieces related to solutions journalism"; and "Look for solutions or read news articles that present hopeful news like a certain species is no longer critically endangered."

Connecting with nature. Several mentioned they connected with nature, and this feeling helped them regulate their affect. For instance, "Trying to enjoy what the world offers me at the moment. If the world truly is doomed, the best I can do is go outside, go for a walk, see new things, enjoy new experiences." Also, "Anything I can do to get outside which also inspires me to take action."

Expression. The expression of one's emotions can be a powerful medium to manage affect. Many talked about journaling, which helps them organize their thoughts and feelings about climate change. A few mentioned engaging with art or creative activities.

Maladaptive strategies

Avoidance. This is the one maladaptive strategy that the Likert-scale option did have; however, the open-ended responses shed more light on it. Many students mentioned different ways in which they dissociated, ignored or avoided dealing with the climate change crisis. Some talked about ignoring the problem, e.g. "I think the biggest way I cope is kind of ignoring any news about it, really. It can become too much. However, I don't pay attention to the news as much because it has such a negative tone to it." Others talked about keeping oneself distracted with other activities to avoid thinking about climate change ("I cope mostly through activities that keep my mind off of the subject"). Some talked about being limited in bandwidth to cope ("I am so busy that it often feels I don't have time to cope with these emotions which probably isn't healthy").

Lack of clarity and distress. Relatedly, students said they did not know how to cope with their emotions, stress and anxiety. "Sometimes I just don't feel like doing anything at all because it makes me so anxious." Several mentioned that they ruminated, stressed and engaged in doomscrolling without having adaptive ways to coping with distress.

Substance abuse and behavioral addiction. A few students mentioned the use of substance abuse and over-engagement with negative climate content. For example, "In the past substance abuse but I am trying to do that less" and "Probably more unhealthy mechanisms that plague our age: 'self-medicating'".

Non-emotional responses. At the same time, several individuals stated that they were not emotionally affected by climate change. For instance, some talked about indifference, e.g. "I am fairly indifferent to the issue of climate change." Others talked about a lack of personal

impact on them, “I don’t have any emotions related to climate change.” Or “I don’t have any feelings about climate change.”

Suggested institutional resources to support students

The number of responses to this open-ended question was low, with approximately 31% of respondents indicating that they were uncertain about what helpful resources could be available for students. See Figure 4 for the variability in responses. In contrast, 56% offered the following suggestions to enhance affect regulation efforts, as unpacked next and summarized in Figure 5.

Social support and open discussions. The most popular suggestion was for more social support resources, with about 75 participants highlighting different suggestions. Some talked about the need for more support groups and important resources they can provide. Some specifically talked about the benefit of more forums. Also, 7 participants specifically talked about the provision of resources outside academic settings because all need to be able to benefit from social support resources.

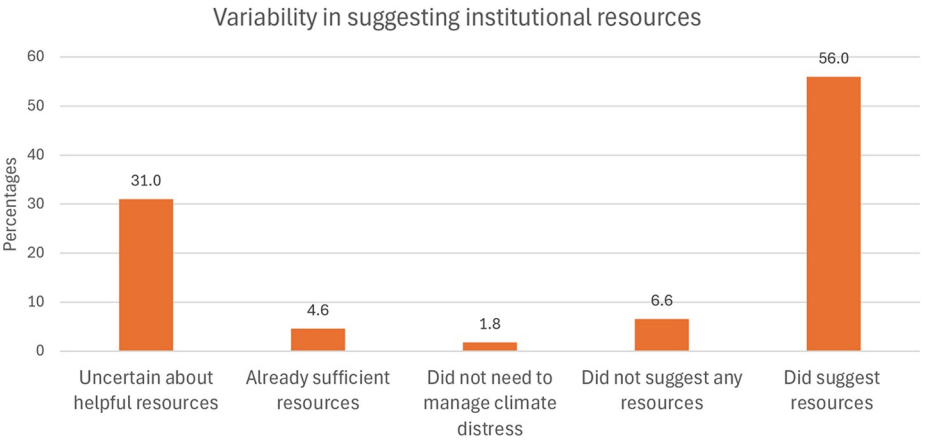

Figure 4. Variability in suggestions for institutional resources was found across students
Source: Figures created by the authors

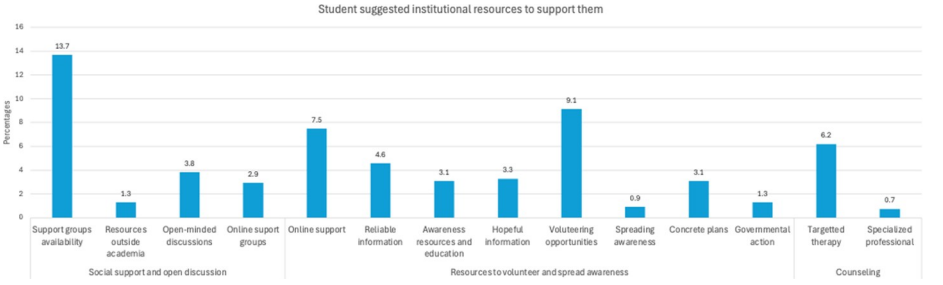

Figure 5. The various institutional resources suggested by students
Source: Figures created by the authors

Also, within the social support context, 21 participants suggested the need for open discussions that sometimes feel impossible in the current divisive climate. "I wish that in the area where I live, there were more places and opportunities to talk about it. The people in my community don't really want to think about or talk about it." Within those, about 16 participants particularly suggested online support groups that can be more comfortable for some folks (such as introverts). Online support also provides easier access and flexibility.

Resources to volunteer and spread awareness. Addressing the lack of several kinds of climate change resources was also the foremost suggestion. For instance, 41 participants asked for online support and information (e.g. websites, statistics). In addition, 25 participants specifically asked for reliable and evidence-based climate change information. Relatedly, 17 participants asked for better awareness resources and education. For example, "I just wish there was more accessible education materials outside of spaces that already care about the environment." Interestingly, 18 participants specifically requested more hopeful information, news and success stories about climate change.

To promote sustainability efforts, 50 participants suggested better knowledge about volunteering and activism opportunities around campus. Also, 5 participants suggested spreading awareness of affordable ways to act sustainably. In addition, 17 participants asked for better concrete plans to decrease their carbon footprint. Furthermore, 7 participants talked about the need for government action and support systems.

Counseling. A total of 34 participants suggested therapy and counseling, with a specific focus on climate change adaptation and coping. Students also talked about the need for affordable treatment and coping resources. Additionally, four students described a need to connect around climate change.

Discussion

Given that climate concerns have been prevalent throughout much of their lives, young people are increasingly aware of the challenges posed by climate change (e.g. Hickman *et al.*, 2021; Jones and Lucas, 2023; Lohani *et al.*, 2025a; Ojala, 2012a, 2012b). In the field of affect regulation, there is a significant gap in understanding the diverse ways undergraduate students cope with the climate crisis in their personal lives; thus, it was the focus of this study. However, effective regulation of these stressors is imperative for students' health and well-being, as well as sustainable climate action (Lohani *et al.*, 2025a a; van Valkengoed and Steg, 2024). Students used various adaptive strategies to manage their emotions, including recreation, self-care, eco-conscious behaviors (such as, changing one's behaviors, advocacy and volunteerism), personal and professional social support, and actively seeking knowledge and positivity to empower themselves while engaging in climate action. In terms of additional resources, students recommended that professionally trained social support (including counselors and climate psychologists) and resources to engage in sustainable action would help them better adapt to climate change challenges. Gaining insights into helpful methods for regulating climate impact can enable preventive and treatment strategies to adapt to substantial climate distress in young people.

Approaches students employ to manage their emotional responses to climate issues. Most students recognized the benefits of taking time for recreation to recharge, which can help create a buffer for managing stress. This aligns with past work on managing stressors in everyday life, which is an effective approach to lowering stress and improving health outcomes (e.g. Denovan and Macaskill, 2017; Iwasaki, 2006; O'Connor *et al.*, 2021). Mindfulness and acceptance were also identified as effective stress-relief methods, aligning with past work that found them to be effective for managing stressors that seem

uncontrollable (Aldao *et al.*, 2010; Brans *et al.*, 2013). However, as noticed by the limited number of students who reported these strategies, these approaches are rather difficult strategies to implement; therefore, further work is needed to develop training programs to contextualize these strategies to the climate crisis and prepare individuals to adopt them in their everyday lives successfully.

In line with previous research (Bright and Eames, 2022; Brosch and Steg, 2021), we found that students benefited from actively engaging in eco-conscious behaviors such as activism, ecologically aware consumer choices, and minimizing their carbon footprint (Bronfman *et al.*, 2015; Howell, 2013; Park and Ha, 2012; Reser *et al.*, 2012; Wong-Parodi and Feygina, 2021). It is encouraging to observe a significant number of people having personal responsibility, as it promotes pro-environmental attitudes, beliefs and the initiation of proactive steps to address climate change (Syropoulos and Markowitz, 2022). These findings align with earlier work showing that education, volunteer efforts, various forms of activism and sustainability initiatives offer promising solutions for tackling climate concerns (Ben Zvi Assaraf *et al.*, 2025). A potential explanation for these results is that they provide students with a sense of control and agency, which can empower them to manage their climate distress and experience positivity (Lohani *et al.*, 2025a). This also aligns well with the resource recommendations from some students who expressed a desire for easier access to ways to engage in pro-environmental behaviors. Connecting with nature was another approach that students found to be effective in managing their climate distress. Past research has found support for the benefits of finding beauty and solace in nature that can also increase pro-environmental support (Reser *et al.*, 2012).

On a related note, students also reported using some traditional ways of managing daily life stressors. Some embraced planning and problem-solving as a way to manage their affect, which has been found to be an adaptive approach to adapt to stressors (Aldao *et al.*, 2010). For example, students shared learning about climate change as a way to problem-solve and feel they had some control over the situation. In the context of climate change, these are similar to eco-conscious behaviors. Several students also talked about feeling hope, which is a promising sign (Lohani *et al.*, 2025a, b). *Hope* includes accepting the realities of climate change while thinking of constructive ways to tackle climate change challenges (Li and Monroe, 2019; Ojala, 2012a, 2012b; Ojala, 2023). Students elaborated on their constructive hope about climate change, which is linked with engagement (Ojala, 2015, 2016). Students looked for progress made in efforts to mitigate climate change, which gave them hope. This complements past work that has found hope in the context of climate change to promote environmentally supportive attitudes and advocacy efforts (Ojala, 2015; Nabi *et al.*, 2018).

Additionally, students found that receiving social support from loved ones and professionals helps alleviate the adverse psychological effects of climate change. This, too, aligns with existing research indicating that social support can provide individuals with a buffer against life stressors (Smith *et al.*, 2012). As part of their resources, students specifically emphasized the critical need for mental health professionals trained in climate distress treatment. This underscores a limitation at many universities that need to tackle the inadequate professional support on campus to specifically handle climate-related issues and concerns that can vary across individuals (Geraci *et al.*, 2024).

At the same time, students reported difficulties confronting the realities of climate change and engaged in unhelpful strategies, such as avoidance and a lack of clarity. In contrast, a striking number also indicated indifference toward climate change, which has been associated with unhelpful ways of managing climate challenges (Lohani *et al.*, 2025a). Additionally, non-emotional responses could suggest a lack of motivation,

which results in climate inaction (Bright and Eames, 2022; Brosch and Steg, 2021; Morris *et al.*, 2019). Further targeted work is necessary to develop interventions for students who exhibit indifference.

Still, many respondents discussed their struggles with the debilitating impacts of the climate change crisis and finding ways to cope with it. Similarly, many students mentioned ineffective affect regulation strategies, which can worsen mental health and the climate crisis. It is particularly urgent to meet the needs of young adults who struggle to identify effective affect regulation strategies or who find existing affect regulation strategies to be ineffective. These individuals are at greater risk for a mental health crisis (e.g. Ingle and Mikulewicz, 2020; Ma *et al.*, 2022). Yet, it remains unclear what effective interventions can support young adults in crisis due to their climate concerns. We still need to learn which are more effective than others in actually adapting to the intensity of climate distress to develop preventive mental health protocols to mitigate severe impacts. In addition, there is a need for targeted approaches to teach effective techniques to manage climate distress (Ben Zvi Assaraf *et al.*, 2025). Below, we highlight several key findings and suggest resources to create a supportive system for the emerging generation that directly addresses climate mitigation and adaptation crises.

Resources that students wished were available to them. The current study has identified several meaningful methods that students have found helpful in tackling despair, uncertainty and helplessness. Furthermore, students also provided suggestions for additional systemic resources to support them. The most frequent recommendation was to increase the availability of social support opportunities. Students mentioned the need for therapy and counseling focused on climate change adaptation and coping strategies, which are currently extremely limited at educational institutions. Students also proposed easier access to resources on climate change mitigation and local opportunities to engage in climate action. The student perspective, as gained from the current work, is critical for understanding what they believe may be helpful in alleviating climate distress.

Limitations and future directions. Several limitations should be considered while interpreting these results. First, the current findings are cross-sectional, and additional information would be helpful to know how the use of affect regulation strategies may fluctuate over time. Second, it is possible that students are employing several affect regulation strategies, but they may not be aware of them. Ecological momentary assessment may be one of the good approaches to capture these dynamic changes through the adoption of regulatory approaches to manage responses in the context of climate change (Lohani and Blodgett, 2025). Third, a direct examination of the potential benefits of affect regulation strategies would be helpful in improving the emotional experience of students. Also, understanding individual differences in managing emotion regulation efforts remains an active area of research. Fourth, the current findings are from a single larger university that may not be representative of students from different locations and circumstances. Further work is needed to gain insights into experiences and strategies that are useful from other geographic locations to build a cohesive understanding. Fifth, we lack information on how much climate change learning was linked to ways students managed their responses to it, and future work is needed to explicitly test these connections. Finally, it is unclear what a lack of emotional responses to the climate crisis may imply and what students may be doing when they were not emotionally affected by climate change. Furthermore, it remains to be explored how the lack of response is linked to climate disengagement and what kind of interventions may be effective in promoting pro-environmental behavior.

Conclusions

The current findings shed light on eclectic approaches that students adopt to manage their emotional responses to climate distress. They highlight that most students feel a dearth of resources available to them to effectively manage their personal climate distress and contribute to sustainability. Further work is needed to determine how to make progress with the students' suggestions in making changes at the institutional level and supporting the student population.

In terms of practical implications, the study highlights some manageable attempts that institutions can implement to support their student populations. This is related to past findings that the student population is interested in supporting climate change efforts, but often does not know how to actually implement them (Zeeshan *et al.*, 2021). Borrowing from students' suggestions, the university can champion social support resources in the form of town halls and informal events for those interested in climate change conversations. For instance, a climate fair can bring in local community members to build opportunities for students to feel connected to ongoing causes in their community. Institutions can also build resource centers for students to learn about climate change and invite local vendors and companies to advertise climate change-related opportunities they have. Such efforts can help students learn about the potential ways they can "do their part" by contributing to mitigating the climate change trajectory. Opportunities to make a difference can provide meaning and purpose to students' lives (Bains and Turnbull, 2019). Thus, the suggestions from students have the potential to combat the distress caused by the climate crisis and should be considered in education to support climate resilience and action.

On a related note, the courses on climate change and sustainability can also help students learn about the potential stressors they may experience and known affect regulation strategies that may help them manage their responses to make them more resilient. Targeted interventions are required to help students develop better coping approaches to climate change. This requires investment in counsellors and professionals specifically being trained in supporting students with climate distress (including chronic anxiety and depression). While the infrastructure to prepare future professionals is limited (Ravi *et al.*, 2024), the current study provides rationale to make investments toward the mental health of student populations. Specialized training is needed to improve mental health resources and prepare all who will be affected by climate change.

We hope the current lessons can inform pedagogy and help develop evidence-based mental health resources that equip both current and future generations to adapt to and mitigate the climate crisis effectively.

Ethics statement

This research involved human subjects in its research, and all procedures were in line with the study protocol approved by the Institutional Review Board of the University of Utah.

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