



## NURSING AND HEALTH POLICY PERSPECTIVE

# Health Professionals' Thoughts and Experiences on the Effects of the Global Climate Crisis on Patients' Mental Health: A Phenomenological Study

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## ABSTRACT

**Objectives:** This study examined healthcare professionals' perceptions of the climate crisis's impact on patients' mental health.

**Background:** The global climate crisis poses significant challenges to mental health, influencing individuals' psychological well-being and their ability to adapt to changing environmental conditions.

**Materials and Methods:** A phenomenological research approach was adopted, employing a qualitative design. In-depth semi-structured interviews were conducted with 15 healthcare professionals working in various regions of Türkiye. Participants were recruited through snowball sampling, and interviews continued until data saturation was achieved. All sessions were audio-recorded, transcribed verbatim, and analyzed using thematic analysis. The study adhered to the COREQ checklist for reporting qualitative research.

**Results:** Analysis revealed three main themes: the effects of climate change on healthcare professionals' mental health, patients' perceptions of climate change's impact on mental health, and the reflections of the global climate crisis on patient care. Seven sub-themes were also identified: direct, indirect, social, psychological, and physical effects. Findings indicated that both healthcare professionals and their patients experience negative mental health outcomes related to climate change.

**Conclusion:** The study highlights that the global climate crisis adversely affects the mental health of healthcare providers and patients. These findings underscore the need for health policies and interventions that address the psychological consequences of climate change within healthcare settings.

## 1 | Introduction

Climate change is a growing problem with extreme meteorological events, heat, and drought resulting in increased risks of forest fires, hurricanes, floods, and desert dust storms (Allen 2020). Global climate change is a significant health problem that affects many diseases due to increased exposure to environmental factors, as extreme weather events become more frequent and

severe. Unexpected increases in the variety and incidence of metabolic and infectious diseases associated with climate change are encountered, and the health sector can be negatively affected (Rohr et al. 2011; Keswani et al. 2022; Gülirmak-Güler and Albayrak-Günday 2024; Özkan 2025).

Health professionals must increase awareness and take action to minimize current and future health impacts. The environmental

dimension expressed in the meta-paradigm of the nursing profession, which has a large percentage among health professionals, expresses the responsibilities of nurses toward the environment. Therefore, health professionals have moral duties and responsibilities as professionals on issues such as enabling decision-makers to formulate and defend policies, reducing carbon footprint, protecting the planet's health, raising public awareness about climate change, and creating a more sustainable environment. In this context, health professionals' responsibility to improve the planet's health comes to the fore (Özbek and Çimen 2023; Ediz and Uzun 2024).

Health professionals should ensure that everyone, especially vulnerable groups, benefits equally and fairly from information, resources, and services in health problems arising from climate change. The leadership potential of health professionals should be developed, and they should be allowed to acquire the necessary skills through training. Health professionals should also develop preparedness and action plans for disasters and natural events. In addition, adaptation and carbon footprint reduction behaviors are as important as education for the health of our planet. Healthcare professionals should collaborate with unions, associations, and decision makers to mitigate the negative impacts of climate change, ensure adaptation, and establish effective policies (Salas et al. 2023; Hallett et al. 2023; Am et al. 2023; Kotcher et al. 2021; Kameg 2020; Hathaway and Maibach 2018).

The multifaceted impacts of climate change are expected to increase in the coming years, including in the health sector. In order to understand, manage, and mitigate the consequences of this global threat, it is predicted that the training of healthcare professionals on climate change and health issues will positively affect both the health of patients and the health services provided (Philipsborn et al. 2021). Sanderson and Galway (2021) found that health professionals emphasized that the global climate crisis threatens the planet. Ediz and Uzun (2024) stated in their study that nurses were concerned about the global climate crisis and experienced psychological effects related to this urgent environmental problem. They also reported that nurses were highly aware of their responsibility to protect the planet and experienced a strong sense of concern about the state of the world (Ediz and Uzun 2024).

In the studies, while the thoughts and experiences of healthcare professionals on the reflections of the global climate crisis on public health are included, no study deals with the thoughts and experiences of healthcare professionals on the reflections of the global climate crisis on patients' mental health. This study will likely contribute to the literature by filling the gap in the field. In this context, this phenomenologically designed study aims to determine the thoughts and experiences of healthcare professionals about the reflections of the global climate crisis on patients' mental health with a phenomenological approach.

## 2 | Method

Throughout this study, the authors followed the Consolidated Criteria for Reporting Qualitative Research (COREQ) and reported accordingly (Tong et al. 2007) (see also Supplemental Digital Appendix 1).

### 2.1 | Study Design

This study was conducted between June 2024 and August 2024 using a qualitative research design. In-depth, semi-structured individual interviews were carried out with 15 healthcare professionals working in various regions of Türkiye.

### 2.2 | Research Team and Reflexivity

Both members of the research team are active researchers and faculty members in nursing schools. Both hold doctoral degrees in psychiatric nursing and have received training in qualitative research methods. The third researcher works as a paramedic in the emergency department of the provincial health directorate. The paramedic researcher was primarily responsible for data collection, while the two psychiatric nursing academics played an active role in data analysis, interpretation, and manuscript preparation.

The diversity of professional backgrounds provided complementary perspectives but also required careful reflexivity. The psychiatric nursing academics brought expertise in mental healthcare and qualitative research, which could influence how emerging themes were interpreted. The paramedic researcher's frontline emergency experience, on the other hand, facilitated rapport with participants and a practical understanding of climate-related health challenges. To address the potential impact of these positionalities, the team engaged in regular reflexive discussions, kept analytic memos, and critically examined how their professional identities and assumptions might have shaped both data collection and interpretation.

### 2.3 | Sample Group

Snowball sampling was employed in determining the study group. Snowball sampling involves forming the sample through the recommendations of initial participants who suggest other potential participants meeting the research criteria (Altunay et al. 2014; Başkaya and Demir 2023). Semi-structured, in-depth interviews were conducted with 15 healthcare professionals working in various regions of Türkiye. The interviews continued until data repetition occurred, and the process was concluded when data saturation was reached after interviewing 15 participants.

#### Inclusion criteria

- Working as a health professional
- Being open to communication,
- Voluntary participation in the research

#### Exclusion criteria

- Having a language, speech, or hearing impairment that prevents communication

## 2.4 | Data Collection Tools

In the study, “Introductory Information Form” consisting of questions about the demographic characteristics of health professionals and “Semi-structured Interview Form” including interview questions to determine the experiences of health professionals were used.

The interviews were conducted in a private setting with only the participant and the researcher present, seated at an angle to facilitate comfortable interaction. Semi-structured interview guides were employed, with the researcher practicing active listening throughout. Prior to the interviews, both written and verbal informed consent were obtained from the participants. Interviews were audio-recorded in accordance with the participants’ consent.

### 2.4.1 | Introductory Information Form

The researcher prepared the introductory information form in line with the literature (Özbek and Çimen 2023; Ediz and Uzun 2024), and the form consists of seven questions covering age, gender, marital status, place of residence, profession, duration of employment in the profession, and unit worked in.

### 2.4.2 | Semi-Structured Interview Form

The form was prepared in line with the purpose of the research by utilizing the relevant literature (Özbek and Çimen 2023; Ediz and Uzun 2024). Semi-structured interview form; it consists of supportive side questions to examine the main topics that will be used when necessary (when the participant remains silent, goes off topic, etc.) about the thoughts of healthcare professionals on the reflections of the global climate crisis on patients’ mental health. The process of developing the interview form included the following steps:

- Literature Review: Existing research on the effects of climate change on mental health and health services was reviewed, and the main topics in this form were determined in light of this literature.
- Identification of Main Topics: The form was structured to comprehensively reveal participants’ thoughts, experiences, and predictions through six basic questions. The questions were designed to be open-ended to cover both positive and negative effects.
- Supporting Follow-Up Questions: Follow-up questions have been identified for the interviewer to use in cases where the participant deviates from the topic, remains silent, or requires additional clarification. This approach ensures that data is collected in a thorough and unbiased manner.
- Expert Opinion and Pilot Application: The form has been reviewed by academics and clinical experts with experience in the subject area and tested in pilot interviews for comprehensibility and scope. Necessary corrections have been made to the form.

Through these processes, the semi-structured interview form has been developed as a valid and reliable qualitative data collection tool suitable for the research.

The questions in the form are presented below;

- What do you think about climate change?
- Can you talk about the effects of climate change on your mental health (positive or negative)? What are your experiences in this regard?
- Can you talk about the effects of climate change on patients’ mental health (positive or negative)? What are your experiences in this regard?
- How do you think climate change will affect patients’ mental health in the future?
- What do you think about the reflections of the global climate crisis on healthcare services? What should be done in this regard?
- How do you think the global climate crisis will affect patient care services in the future?

## 2.5 | Validity and Reliability of the Study

Lincoln and Guba’s (1985) four basic criteria were addressed to try to keep the credibility level of the research high. In order to see whether the research meets the criteria of credibility, the results obtained from the analysis of the interviews will be shared with two of the participants with a high level of education, and participant approval was obtained. In order to achieve the transferability criterion, that is, to ensure that the findings can be used in other contexts, detailed information about the characteristics of the participants and the place where the research was conducted was provided. In this respect, other researchers will likely reach similar results with similar participants in similar environments. In order to reach the dependability criterion, detailed information about the research process was provided. In line with the confirmability criteria, quotations from the participants’ statements were given in the study results before the analysis (Lincoln and Guba 1985). In order to increase internal reliability, the codes were given independently by three researchers. In order to increase internal validity, opinions were obtained from four experts in the field for the research questions in the semi-structured interview form and from one expert for the results (Lincoln and Guba 1985).

## 2.6 | Data Analysis

This study used Colaizzi’s (1978) seven-step phenomenological data analysis method (Table 1). This method was applied to ensure reliability, validity, transferability, and consistency. Participants (e.g., P1, P2, P3) were assigned codes.

In this context, the interview transcripts were independently reviewed by three researchers through repeated readings; important statements and units of meaning were identified and discussed to reach consensus. Inter-researcher agreement was

**TABLE 1** | Colaizzi's (1978) seven-step procedure for data analysis steps data analysis procedure.

Step number	Phenomenological methods
(1)	All interviews were recorded and transcribed as soon as possible. Each transcript was read three times, and important points were noted. Participants (e.g., P1, P2, and P3) were assigned codes in each transcript.
(2)	Important statements regarding the experiences of healthcare professionals were selected from each transcript.
(3)	The meanings of these important statements were extracted and verified by an expert with two qualitative research experiences.
(4)	The meanings extracted were organized into sub-themes and themes.
(5)	The themes and sub-themes were integrated to describe the participants' experiences comprehensively.
(6)	The participants' basic mindset regarding the impact of the global climate crisis on mental health was explained.
(7)	The researcher's descriptive findings were shared with the participants, and verification was requested.

achieved through continuous discussions and joint decisions during the coding and theme generation. Although a quantitative measure such as the kappa coefficient ( $\kappa$ ) was not used, reliability and validity were supported through participant validation, expert opinion, and the presentation of direct quotations (Yıldırım and Şimşek 2021; Morrow et al. 2015). Thus, Colaizzi's systematic approach was preserved in the data analysis, and inter-researcher consistency and reliability were ensured.

## 2.7 | Ethical Consideration

Ethical approval for this study was obtained from the Gümüşhane University Scientific Research and Publication Ethics Committee with the decision dated April 22, 2024, numbered 2024/4 and registered under Ref: E-95674917-108.99-248160. Written informed consent was obtained from all participants on a voluntary basis. Records and transcripts were stored on an encrypted device. The study was conducted in accordance with the Declaration of Helsinki and the ethical standards of the National Research Committee.

## 3 | Results

The average age of the individuals included in the study was  $27.86 \pm 4.83$ . In addition, eleven of the participants were female

and thirteen were single. Demographic characteristics of the participants are presented in Table 2.

As a result of the data analysis obtained from the semi-structured interviews, themes, sub-themes, and codes were identified (Table 3).

### 3.1 | Theme 1. Impacts of Climate Change on the Mental Health of Health Professionals

#### 3.1.1 | Sub-Theme 1. Direct Impacts

As a result of interviews with individuals, health professionals stated that climate change directly impacts them mentally.

- *“The abnormal temperatures caused by climate change have made people increasingly listless and depressed. As the increasing heat makes it harder to go out, there is a parallel increase in asociality. People who cannot meet their need to socialize sufficiently become withdrawn and have difficulty controlling the depression process. Uncontrollable depression, on the other hand, has started to decrease tolerance levels and increase anger levels in people.” (P1).*
- *“With the increasing temperature due to climate change, we are experiencing stress, heat cramps, and heat stroke. Unfortunately, the impact on human health is increasing with the increase in the intensity and frequency of extreme hot weather events. It is a fact that infants, children, people with chronic diseases, and people over the age of 65 are most affected by this situation. Respiratory allergies and asthma are becoming more common and severe due to increased exposure to pollen, mold, and air pollution. As temperature increases and carbon dioxide concentrations increase, they affect the timing and distribution of allergens such as pollen and cause flowers to open earlier.” (P6).*

#### 3.1.2 | Sub-Theme 2. Indirect Impacts

As a result of the interviews, health professionals expressed anxiety due to disasters, fear due to the change of seasons, worry about a food crisis in the world, and feeling hopeless because they thought they would not be able to leave a clean world to their children.

- *“I do not think climate change affects my mental health directly, but it does so indirectly. Disruptions in seasonal patterns and environmental imbalances seem to impact my overall well-being, making my mood more fluctuating and prone to depression.” (P12).*
- *“Climate change brings stress in many ways—losing jobs, leaving our homes after disasters, anxiety, anger, even violence. It affects our mental health, increases depression, and worries us about the future and our children. Crops are ruined by heat and unpredictable seasons, which hit farmers both financially and emotionally.” (P15).*

TABLE 2 | Demographic characteristics of the participants.

Participant number	Age	Gender	Marital status	Place of residence	Profession	Duration of employment in the profession	Unit worked in
P1	21	Male	Single	Samsun	Nurse	3 years	Emergency service
P2	23	Female	Single	Samsun	Nurse	3 years	Intensive care unit
P3	24	Female	Single	Samsun	Nurse	2 years	Intensive care unit
P4	31	Male	Single	İstanbul	Paaramedic	4 years	Emergency call center
P5	24	Female	Single	Samsun	Nurse	3 years	Emergency service
P6	29	Female	Single	Samsun	Paaramedic	2 years	Emergency call center
P7	27	Female	Single	İstanbul	Paaramedic	2 years	Emergency call center
P8	37	Male	Single	Samsun	Nurse	4 years	Intensive care unit
P9	28	Female	Married	Samsun	Paramedic	2 years	Emergency call center
P10	22	Female	Single	Samsun	Nurse	1 year	Intensive care unit
P11	26	Female	Single	Tokat	Psychologist	2 years	Psychiatry outpatient clinic
P12	27	Male	Single	Samsun	Paaramedic	7 years	Emergency call center
P13	35	Female	Single	Ordu	Nurse	5 years	Intensive care unit
P14	34	Female	Married	Samsun	Paaramedic	2 years	Emergency call center
P15	30	Female	Single	Ordu	Paaramedic	5 years	Emergency service

### 3.2 | Theme 2. Thoughts on the Effects of Climate Change on Patients' Mental Health

#### 3.2.1 | Sub-Theme 1. Direct Impacts

As a result of the interviews, health professionals expressed that the direct effects of climate change on the mental health of patients include being extremely irritable due to intense temperatures, fear due to disasters, posttraumatic stress disorder due to disasters, future anxiety, and panic attacks due to the increase and resistance of viruses.

- “The heat from climate change makes people more tired and depressed. It’s harder to go out, so people stay inside, feel lonely, and struggle with controlling their moods. When depression gets worse, people become more irritable and quick to anger.” (P2).

- “The abnormal increase in temperatures, which is one of the adverse effects of climate change, hurts the survival of the elderly. The elderly may not want to be outside the home environment due to chronic diseases and physical disabilities. When extreme temperatures are added, older adults are forced to live only in the home environment. Being in the same environment all the time, being able to continue their lives with the same daily routine, negatively affects the mental health of the individual and throws the person into the lap of problems such as depression and anxiety.” (P14).

#### 3.2.2 | Sub-Theme 2. Indirect Effects

In the interviews, health professionals stated that the global climate crisis has indirect effects on patients' mental health.

**TABLE 3** | Health professionals' thoughts and experiences on the reflections of the global climate crisis on patients' mental health.

Themes	Sub-themes	Codes
<b>1. The effects of climate change on the mental health of health professionals</b>	A. Direct impacts	A.1. Anxiety A.2. Irritability A.3. Restlessness A.4. Fear A.5. Depressive mood A.6. Hopelessness A.7. Decline in motivation A.8. Pessimism
	B. Indirect effects	B.1. Anxiety due to disasters B.2. Fear due to the change of seasons B.3. Worrying about a world food crisis B.4. Feeling hopeless because they think they cannot leave a clean world for their children
<b>2. Thoughts on the effects of climate change on patients' mental health</b>	A. Direct impacts	A.1. Patients are extremely irritable due to the intense temperatures A.2. Fear due to disasters A.3. Posttraumatic stress disorder due to disasters A.4. Concern about the future due to the increase in resistance of viruses A.5. Panic attack
	B. Indirect effects	B.1. Aggressive behavior due to extreme heat B.2. Anxiety disorder due to the effects of the global climate crisis B.3. Sleep disorders B.4. Anxiety due to allergic problems B.5. Increased symptoms in chronic mental illnesses B.6. Experiencing mental health problems due to problems related to social life B.7. Concern for people exposed to disasters
<b>3. Reflections of the global climate crisis on patient care</b>	A. Physical	A.1. Inadequacy of the health system due to increasing diseases A.2. Insufficient health personnel due to the increase in disasters A.3. Increasing complex patient population A.4. Increased need for mental health specialists
	B. Social	B.1. A sense of concern for the world in individuals B.2. Burnout in health professionals due to people's insensitivity
	C. Spiritual	C.1. Aggressive behavior of patients and health professionals C.2. Health personnel experiencing burnout C.3. Future anxiety in patients C.4. Fear in patients

- “Stress situations that will occur due to climate change, inability to produce food, inability to reach them, loss of jobs, having to leave their homes as a result of natural disasters caused by climate change, anger in people, inability to control myself, anxiety, many negative situations caused by that stress, maybe even violence. As the climate changes, mental disorders will increase, and hospital admissions and drug use will increase. Hopelessness about the future causes parents to worry about their children, which is reflected in their children. The crops we harvest yearly are burned due to the heat and seasonal abnormalities. We cannot harvest them, which negatively affects the psychological, economic, and mental health of the farmers who produce them.” (P13).
- “Climate change can affect mental health by exposing people to trauma. Examples include posttraumatic stress disorder following natural disasters. Extreme heat events, which will become more common as global temperatures rise, can manifest themselves in a general increase in aggressive behavior, higher crime rates, and increased suicide rates. There will likely be an increase in the overall burden of mental disorders worldwide, as extreme weather and natural disasters can lead to displacement, loss, and social disruption for individuals, families, and communities. In addition, individuals, families, and communities already vulnerable to stress-related disorders and mental illness will be at even higher risk following extreme weather.” (P3).
- “The unusual heat caused by climate change makes people feel increasingly tired and depressed. It becomes harder to go outside, so many of us stay home and socialize less, which makes loneliness worse. When depression gets stronger, it is harder to manage emotions, and people become more irritable and quick to anger.” (P4).
- “I think climate change affects our mental health because it brings trauma. After disasters, people can become very stressed. The extreme heat makes people more aggressive, crime goes up, and sadly, suicide can increase. When storms or disasters destroy homes and communities, it hits everyone hard—families, kids, and those already struggling with mental health. People who are vulnerable suffer even more.” (P7).

### 3.3.3 | Sub-Theme 3. Spiritual

In the interviews, healthcare professionals stated that the global climate crisis will also have psychological repercussions on patient care.

- “While providing physical care to patients, they should also be evaluated regarding mental health. This can lead to prolonged care periods and increased workload (P14)”.
- “I think that the global climate crisis will mostly affect elderly patients and their mental health. This may also lead to the need for more elderly care homes.” (P8).

## 3.3 | Theme 3. Reflections of the Global Climate Crisis on Patient Care

### 3.3.1 | Sub-Theme 1. Physical

In the interviews, healthcare professionals stated that the physical repercussions of the global climate crisis on patient care include the inadequacy of the health system due to increasing diseases, inadequate health personnel due to increasing disasters, an increase in the complex patient population, and an increase in the need for mental health specialists.

- “It will affect health services negatively. Workload, hospital overcrowding, increasing patient needs, inadequacy of health professionals, and an increase in the work done will cause stress, hopelessness, anxiety, and many people will not receive adequate care.” (P15).
- “When we examine the consequences of the global climate crisis even now, we cannot say that the situation is perfect. The scarcity of water resources, the biological and psychological effects of climate change on the body, and the increase in the amount of carbon dioxide in the breathing air directly affect human health, making patient care services more difficult and increasing costs. Therefore, preventive studies need to be accelerated and increased. Since the balance between care receiver and caregiver in patient care services will be disrupted, the service may not be entirely provided.” (P12).

### 3.3.2 | Sub-Theme 2. Social

In the interviews, health professionals stated that the global climate crisis will also have social repercussions on patient care.

## 4 | Discussion

It will be discussed in line with the themes and sub-themes included in the research. Healthcare professionals’ thoughts about the reflections of the global climate crisis on patients’ mental health and their experiences on this issue were addressed in three themes.

### 4.1 | The Effects of Climate Change on the Mental Health of Health Professionals

In the study, it was determined that climate change negatively affects the mental health of healthcare professionals. Healthcare professionals experience distress and grief about environmental degradation, particularly when treating patients affected by climate-related events. Professionals face difficult decisions during climate disasters when resources are limited, leading to moral distress when unable to provide optimal care. Climate-related health emergencies can lead to surges in patient numbers, longer shifts, and additional responsibilities, exacerbating stress and burnout. In line with all these results, these mental health impacts affect not only individual providers but can also compromise the resilience of healthcare systems as a whole. Physical effects such as drought, temperature changes, an increase in water levels, and storms caused by global climate change primarily disrupt the normal functioning of people’s lives. Another link in this series of events, which we can liken to the domino effect, is the adverse effects on mental health, such as despair, stress, anxiety, loneliness, sensory loss, depression, and posttraumatic stress disorder (Akbulut and Kaya 2021; Emirza et al. 2025). Ediz

and Uzun (2024) stated that nurses were mentally affected and concerned about the global climate crisis. Kotcher et al. (2021) stated that they are aware that climate change has occurred to a large extent and that humans cause it. In addition, health professionals saw climate change as an important and increasing cause of health damage in their countries. They felt responsible for educating the public and policymakers about this problem (Kotcher et al. 2021).

In their systematic review, Dupraz and Burnand (2021) stated that the role of health professionals, individually or collectively, through professional organizations, can include informing and alerting patients, individuals, communities, and decision makers about the relationship of climate and environmental change to health and the need to limit and mitigate these risks to protect health (Dupraz and Burnand 2021). Maxwell and Blashki categorized the health consequences of climate change as immediate and direct risks, indirect risks, deferred and diffuse risks, and risks associated with conflict and refugee flows. From their perspective, immediate and direct risks include heat stress and heat stroke, hurricanes, floods, rising sea levels, and degraded air quality. Indirect risks are those that affect the health of our planet, such as infectious diseases. Maxwell and Blashki identify mental health issues such as anxiety, depression, posttraumatic stress disorders, and other problems. Internal conflict and social instability associated with climate migration are noted as increasingly widespread and complex challenges related to climate change and health (Maxwell and Blashki 2016). In line with all these results, the global climate crisis affects individuals in all aspects.

From a public health nursing perspective, these findings provide important clues. Public health nursing aims to identify the adverse effects of climate change on health early, identify at-risk groups, and develop preventive measures using a community-based approach. Specifically, public health nurses can conduct systematic community assessments to identify climate-vulnerable populations, advocate for climate-resilient policies, and design population-level interventions such as heat-wave response plans, community cooling centers, and education campaigns to reduce exposure to extreme weather events. Since the climate crisis is a phenomenon that threatens public health not only physically but also mentally, public health nursing practices play a critical role in preventing climate-related mental trauma and developing coping strategies in individuals and communities. These roles extend to integrating mental health components into disaster preparedness, coordinating with local governments for early-warning systems, and facilitating community dialogues to build collective resilience. In this context, public health nurses can conduct mental health screenings to detect early signs of climate anxiety, depression, and posttraumatic stress; plan educational programs to improve mental health literacy; and strengthen mental health support components in disaster preparedness programs. Thus, the mental resilience of both individuals and communities can be increased during the adaptation process to climate change.

From the perspective of psychiatric nursing, climate change is seen to threaten the mental well-being of healthcare professionals directly. Psychiatric nurses can implement targeted interventions for eco-anxiety and climate grief—such as cognitive-behavioral therapy, mindfulness-based stress reduction, group therapy,

and crisis-intervention protocols following climate disasters—to reduce distress and strengthen coping skills. Psychiatric nurses play an important professional role in managing climate-related mental health issues such as posttraumatic stress disorder, anxiety, and depression. In this context, it is possible to reduce the mental burden on healthcare professionals through nursing interventions such as individual counseling, group therapy techniques, and crisis intervention. In addition, it is of great importance to integrate evidence-based interventions into nursing practice for the recognition and management of mental health issues related to the climate crisis. Psychiatric nursing can contribute to protecting both healthcare professionals and the community from mental health risks associated with the climate crisis by developing unique models and care approaches in this field. Furthermore, collaboration between public health and psychiatric nursing is essential. Joint initiatives—such as community mental-health outreach after extreme weather events, shared training on climate-related trauma care, and integrated referral networks—can ensure comprehensive support that spans both population-level prevention and individualized therapeutic care.

#### 4.2 | Reflections on the Effects of Climate Change on Patients' Mental Health

Among the direct effects of climate change on patients' mental health, it has been determined that patients are extremely irritable due to intense temperatures, fear due to disasters, posttraumatic stress disorder due to disasters, future anxiety, and panic attacks due to the increase in resistance of viruses. Based on the studies examining the relationship between climate change and mental health in the literature, the effects of climate change on mental health include a wide range of health problems, such as depression, posttraumatic stress disorder, sexual dysfunctions, loss of consciousness, and suicide. It is stated that the relationship between climate change and mental problems is one of the most neglected health problems in Türkiye, and it is recommended to conduct more studies on the subject (Kiraz and Özmen 2021; Emirza et al. 2024). Support services should be planned by considering the effects of climate change on the mental health of healthcare professionals.

Boland and Temte (2019) found that 64% of physicians believe climate change affects their patients' health. Sarfaty et al. (2014) found that 86% of physicians stated that the global climate crisis directly affects patients. In a study by Iira et al. (2020), Finnish nurses stated that they observed the effects of the global climate crisis on their patients. The study's results are significant as they are similar to the world literature.

Among the indirect effects of climate change on patients' mental health, aggressive attitudes due to extreme heat, anxiety disorder due to the effects of the global climate crisis, sleep disorders, anxiety due to allergic problems, increase in symptoms in chronic mental diseases, experiencing mental health problems due to problems related to social life, and anxiety for people exposed to disasters were found. Butterfield et al. (2021) reported that nurses are uniquely positioned in climate change prevention and intervention.

In conclusion, our study reveals the negative effects of climate change on healthcare professionals' mental health. These effects must be addressed in public health nursing and psychiatric nursing practices. From a public health nursing perspective, it is possible to prevent and manage mental health effects caused by the climate crisis at the societal level. In contrast, from a psychiatric nursing perspective, effective interventions can be implemented at the individual and clinical levels. Importantly, coordinated efforts—such as joint community workshops, shared data systems to track climate-related mental health trends, and co-developed policy recommendations—illustrate how these two specialties can collaborate to provide seamless care and advocacy. In this regard, the study contributes to both nursing fields and emphasizes the need for an interdisciplinary approach to addressing the health implications of climate change.

### 4.3 | Reflections of the Global Climate Crisis on Patient Care

The study findings show that healthcare professionals emphasize the global climate crisis's physical, social, and psychological implications on patient care. Malnutrition from disrupted food systems, supply chain disruptions affecting medication and medical equipment availability, increased healthcare costs, and resource scarcity. Spiritual impacts found that eco-anxiety and climate grief, existential distress about environmental degradation, and community trauma following climate disasters are affecting mental health (Lawrance et al. 2022). As noted in the study by Lira and colleagues (2020), climate change has led to noticeable differences in patient populations. Heatwaves, milder winters, increased vector-borne diseases, and migration movements are among the leading changes. This finding shows that healthcare professionals are responsible for clinical care and managing the consequences of environmental changes at the societal level. However, the fact that Finnish nurses reported not feeling prepared to address these issues highlights the need for education and support for healthcare professionals (Lira et al., 2020).

When examining the psychosocial dimension, as noted by Budziszewska and Jonsson (2022), a type of anxiety defined as "eco-anxiety" is becoming increasingly prevalent among patients. This situation highlights that the climate crisis is not limited to physical health but also has significant effects on mental health. As emphasized by Haines and Ebi (2019), exposure to extreme events related to the climate crisis increases the risk of depression and anxiety, particularly leaving individuals with pre-existing mental health issues more vulnerable. From a psychiatric nursing perspective, nurses can use specific competencies such as eco-anxiety assessment, climate grief management, crisis intervention, psychoeducation, and resilience-building strategies to support patients facing climate-related mental health challenges. These interventions help individuals cope with stress, anxiety, and trauma arising from climate disasters, enhancing their mental resilience.

On the other hand, as noted in the study by Kreslake and colleagues (2018), health professionals, as frontline groups directly witnessing the human cost of climate change, are in an important position to advocate for adaptation and mitigation

policies. From a public health nursing perspective, nurses can employ competencies including cultural competency, community mobilization, risk communication, and policy advocacy to implement population-level interventions. Such interventions include community education on climate-related health risks, organizing preparedness programs, supporting vulnerable populations, and advocating for climate-resilient policies. Moreover, collaboration between public health and psychiatric nursing can create integrated care pathways that link community prevention with specialized mental health services, ensuring comprehensive support for patients affected by climate-related disasters. This integration provides a clear framework for incorporating nursing roles into climate-related mental healthcare.

The findings reveal that the global climate crisis negatively affects specific groups and individuals. In this regard, the study supports Nightingale's environmental theory, reminding us of the decisive impact of environmental factors on health (Hegge 2013; Medeiros et al. 2015). In conclusion, strengthening both public health nursing and psychiatric nursing in managing the multidimensional effects of the climate crisis on health is critical for protecting the wellbeing of individuals and society. In conclusion, the findings of this study highlight the need to strengthen the multidisciplinary roles of nursing in managing the health impacts of the climate crisis at both the individual and societal levels. In this context, both public health nursing and psychiatric nursing practices are considered to be key actors in mitigating the mental and physical health impacts of the climate crisis.

## 5 | Conclusion

As a result of the study, it was determined that health professionals were concerned and mentally affected by the global climate crisis. This study revealed that healthcare professionals are aware of their responsibility to protect the planet and are concerned about the world. The findings of this study reveal that the climate crisis affects individuals' physical, mental, and social health in multiple ways, thereby contributing significantly to both public health nursing and psychiatric nursing practices. The data obtained from the perspective of public health nursing emphasizes the need to raise social awareness, reduce environmental risks, and develop resilience programs. In this regard, public health nursing education emphasizes specific competencies such as cultural competency, community mobilization, risk communication, and policy advocacy. Through these competencies, public health nurses can actively increase individuals' adaptation to environmental changes via community-based education, school programs, and disaster preparedness efforts. In addition, nurses' preventive services should be at the forefront in the control of infectious diseases, migrant health, and the management of new health risks associated with the climate crisis.

In terms of psychiatric nursing, the climate crisis's impact on mental health increases the risk of eco-anxiety, depression, and posttraumatic stress disorder. To address this, psychiatric nursing curricula should integrate training on eco-anxiety assessment, climate grief management, crisis intervention, psychoeducation, and resilience-building strategies to reduce the mental health burden of climate change. This situation requires psychiatric nurses to take a more active role in counseling, psychoeducation,

crisis intervention, and community-based support services. The development of mental resilience programs, group therapies, and the expansion of psychosocial support services will contribute to alleviating the mental burden associated with climate change.

In conclusion, the findings of this study show that public health nursing and psychiatric nursing play critical professional roles in the adaptation and coping processes related to the climate crisis. In this context, nursing education must be updated to include the health impacts of climate change, environmental and mental health-focused programs must be developed in collaboration with policymakers, and environmental awareness must be increased in clinical practice.

## 5.1 | Limitations

This study has several limitations. It was conducted with 15 healthcare professionals working in various regions of Türkiye, and the limited sample size restricts the generalizability of the findings to all healthcare professionals. The use of snowball sampling may have resulted in a sample consisting of individuals with specific characteristics, potentially excluding other perspectives. Data were collected through semi-structured in-depth interviews, which, while allowing participants to express themselves, may have been influenced by the interview setting, researcher effect, or social desirability bias. Additionally, the study was conducted between June and August 2024, and this short timeframe may have limited the comprehensive capture of participants' experiences. Finally, since the study was carried out in Türkiye, the findings may have limited applicability to other cultural or healthcare system contexts.

Future research should expand through quantitative and longitudinal designs to provide more generalizable evidence. Additionally, studies can focus on the development and evaluation of intervention programs aimed at mitigating the mental health impacts of climate change on both healthcare professionals and patients.

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### Author Contributions

**Elif Güzide Emirza:** conceptualization, methodology, collecting data, data analysis, writing original draft, review & editing. **Sevda Uzun:** conceptualization, methodology, analysis, writing original draft, review & editing. **Medine Şenses:** conceptualization, methodology, collecting data, review & editing. All authors meet the criteria for authorship, have approved the final article, and all those entitled to authorship are listed as authors.

### Conflicts of Interest

The authors declare no conflict of interest. The study did not receive any financial support or relationships that may pose a potential conflict of interest.

### Data Availability Statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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## Supporting Information

Additional supporting information can be found online in the Supporting Information section.

**Supplemental Digital Appendix 1:** Combined criteria for reporting qualitative research (COREQ).