

THE IMPACT OF CLIMATE CHANGE ON MENTAL HEALTH

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SUMMARY

Background: Climate change is increasingly affecting not only physical health but also mental well-being. Psychological consequences such as eco-anxiety, depression, and post-traumatic stress disorder (PTSD) following climate-related disasters are being reported with growing frequency.

Subjects and methods: This study was conducted with mental health professionals who attended the Medforum Psychiatry Congress in 2024. A 22-question, closed-ended questionnaire was used to assess perceptions of the impact of climate change on mental health, the prevalence of eco-anxiety, and workplace preparedness for responding to climate-related disasters.

Results: A total of 208 individuals participated in the survey. Of those, 51.9% rated the impact of climate change on mental health as moderate, and 13.9% considered it to be very significant. Although eco-anxiety is increasingly recognized by professionals, most admitted that they rarely encounter patients who report this issue directly.

Conclusions: Climate change affects mental health in two ways: directly, through the experience of disasters, and indirectly, by inducing chronic anxiety. Educational initiatives and the implementation of procedures to support mental health during climate-related crises are essential.

Key words: climate change - eco-anxiety - mental health

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INTRODUCTION

Climate change is one of the greatest health challenges of the 21st century. Growing scientific evidence indicates that the consequences of global warming extend beyond direct threats to physical health - such as heat strokes or respiratory diseases - to include significant impacts on mental health as well (Sheppard 2022).

Climate-related disasters, such as floods, wildfires, and hurricanes, can trigger acute stress disorders. These disasters can have particularly severe effects on children, the elderly, and individuals with pre-existing mental health conditions (Novotney 2023).

Furthermore, a growing number of individuals are experiencing chronic anxiety about the planet's future - termed eco-anxiety - which can lead to impairments in daily functioning, a reduced quality of life, and even adjustment disorders (Hough & Counts 2023).

SUBJECTS AND METHODS

The study used a survey targeting psychiatrists, psychologists, and psychiatric nurses who attended the 2024 Medforum Psychiatry Congress. The 22-question survey was composed of closed-ended and multiple-choice questions. The questions explored the specialists' knowledge of the impact of climate change on mental health, their professional experiences with patients reporting eco-anxiety, and their workplaces'

preparedness for crises related to climate disasters. Quantitative data analysis was performed using Excel, while responses to open-ended questions underwent qualitative analysis to identify recurring themes.

RESULTS

Study Selection

The survey, conducted during the Medforum Psychiatry Congress 2024, included 208 mental health specialists. The majority of participants were women (n=133), followed by men (n=72), with 3 individuals identifying their gender as other. The most prevalent age group comprised respondents between 30 and 40 years old (n=60), while the smallest group consisted of individuals over 50 years of age (n=46). The largest group was psychiatrists (n = 137), followed by residents (n = 26), psychologists (n = 15), other medical professionals (n = 13), and individuals not directly involved in medical specialization (n = 27). The largest group of participants reported over 20 years of professional experience (n = 61), while the smallest group reported 10–15 years of experience (n = 27). Respondents primarily worked in mental health clinics (n=115), psychiatric hospitals (n=66), mental health centers (n=51), and psychiatric wards in general hospitals (n=37). Additionally, 23 participants were affiliated with research centers or universities, while 66 indicated other workplaces.

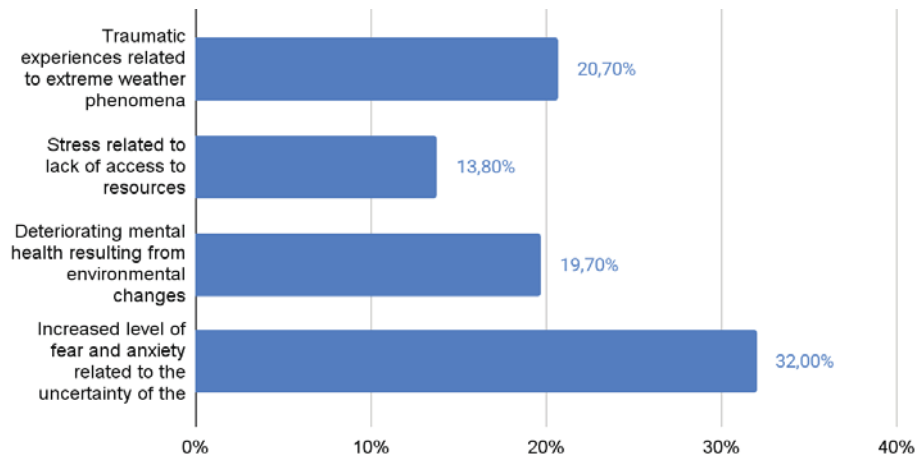


Figure 1. What are the main direct effects of climate change on mental health?

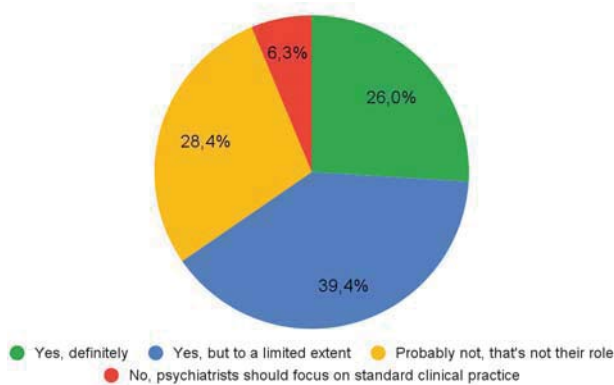


Figure 2. Should psychiatrists play an active role in educating the public about the mental health effects of climate change?

Perceived Impacts of Climate Change

Respondents most frequently identified increased anxiety and apprehension related to future uncertainty as the primary direct mental health consequences of climate change (n = 130). Other significant perceived effects included traumatic experiences associated with extreme weather events (n = 42) and a deterioration of mental well-being resulting from environmental shifts (n = 40) (Figure 1).

Psychiatry's Role in Public Education

More than half of the surveyed participants (n=136) believed that psychiatrists should actively engage in public education regarding the impacts of climate change. Of these, 54 strongly supported this role, while 82 supported it to a limited extent. Conversely, 59 respondents were somewhat opposed to this role, and 13 strongly rejected it (Figure 2).

Frequency of Contact with Patients Experiencing Eco-Anxiety

Nearly half of the respondents rarely encounter patients suffering from "eco-anxiety" (n=90). Sixty individuals reported encountering such patients occasionally, while only nine indicated very frequent contact.

Perceived Impact of Climate Change on Younger Generations

When asked about the influence of climate change on stress and anxiety levels among younger generations, the majority of respondents indicated a moderate (n = 108) or slight (n = 66) impact. In contrast, 29 individuals assessed the impact as very significant, and five perceived no impact at all.

Most Effective Forms of Psychological Support

Respondents identified cognitive-behavioral therapy (n=85) as the most effective form of psychological support for patients experiencing "climate anxiety." Other highly rated approaches included relaxation techniques such as meditation and mindfulness (n=68), group therapy (n=58), and consultations with a psychiatrist (n=19) (Figure 3).

Need for Training and Workplace Preparedness

A significant majority of respondents, 127 individuals, believe that psychiatric training programs should incorporate topics related to mental health within the context of climate change. Concurrently, 149 participants assessed their workplace's preparedness to address mental health needs during natural disasters as insufficient or completely unprepared.

The Significance of Geo-Psychiatry

Geo-psychiatry, an emerging field exploring the impact of climate on mental health, was perceived by respondents as potentially useful (n=108) or important and necessary (n=33). Conversely, 27 respondents considered it superfluous.

Suggested Actions for Increasing Public Awareness

Respondents most frequently identified educational campaigns (n=124), integrating the topic into school programs (n = 87), and training specialists (n = 47) as key actions to raise awareness about the impact of climate change on mental health.

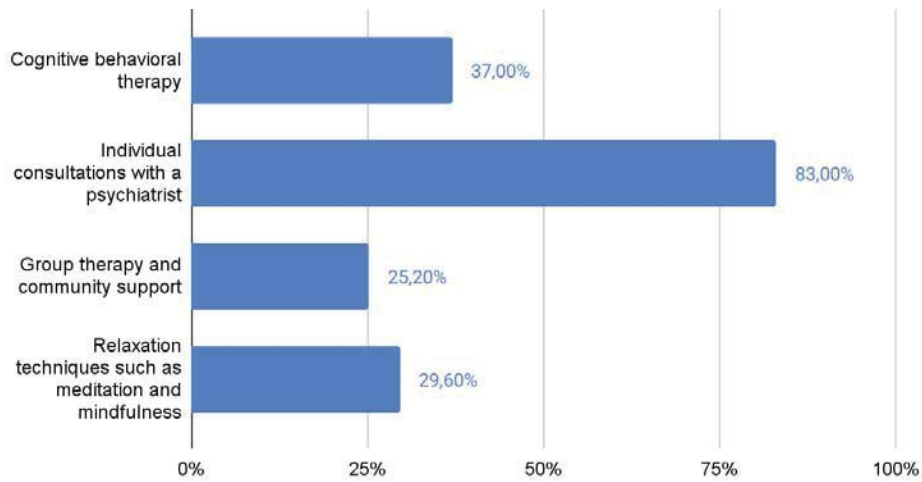


Figure 3. What type of psychological support do you consider most effective for patients suffering from “eco-anxiety”?

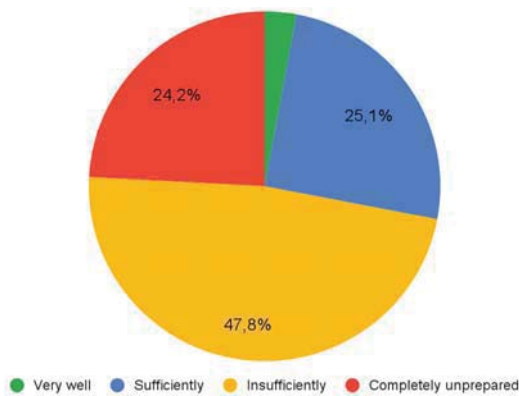


Figure 4. How do you assess your workplace's preparedness to handle sudden mental health needs resulting from natural disasters?

Risk of Climate-Related Mental Health Issues

The majority of respondents (n=183) believe that climate change increases the risk of mental health problems in the future. The most frequently cited threats to patients included social issues, such as climate migration and natural disasters (n=91), heatwaves (n=54), air pollution (n=48), and the spread of infectious diseases (n=40).

Workplace Preparedness for Crisis Situations

The largest group of respondents (n = 99) indicated that their workplaces were "insufficiently prepared" to address urgent mental health needs related to climate disasters. An additional 50 individuals pointed to significant deficiencies. Only 52 respondents assessed their workplaces as "sufficiently prepared," and just six as "very well prepared" (Figure 4).

Overall Assessment of the Impact of Climate Change on Mental Health

When asked about the influence of climate change on the future risk of mental health problems, the largest group of respondents (n = 108) believed that climate change increases this risk to some extent. Seventy-five

individuals thought the increase was significant. A considerably smaller number of respondents indicated either no influence (n = 16) or zero impact (n = 5).

Psychiatric Care for Individuals with Eco-Anxiety

The majority of respondents (n = 191) agreed that individuals experiencing eco-anxiety should receive psychiatric care. Only a small number (n = 15) considered it unnecessary.

Best Coping Strategies for Chronic Climate Stress

Respondents identified social support and support groups as the most effective methods for dealing with stress caused by climate change. Other highly effective strategies included individual therapy (n = 77), group therapy (n = 58), and self-help techniques, such as meditation (n = 54).

DISCUSSION

This study aimed to investigate the perceptions and experiences of mental health specialists regarding the impact of climate change on mental health. Our results indicate that while specialists recognize climate change as a significant factor affecting patient mental well-being, this topic is not yet widely integrated into routine clinical practice. This observation aligns with previous research highlighting the emerging nature of climate-related mental health concerns in clinical settings (Sheppard 2022).

Furthermore, our results show that eco-anxiety is increasingly acknowledged by specialists. Consistent with existing literature (Novotney 2023), eco-anxiety can manifest as an adaptive response, encouraging pro-environmental engagement, but it also carries the potential for maladaptive coping mechanisms, such as avoidance of climate-related discussions and a diminished quality of life.

A substantial proportion of the surveyed specialists emphasized the need for public education on the mental health impacts of climate change and the imperative for training medical personnel. Respondents specifically identified a lack of standardized procedures within healthcare facilities for preparing for and responding to sudden climate-related events (Gawrych 2022). This underscores a critical gap in current healthcare infrastructure, as also noted by other studies. These findings suggest that addressing the mental health implications of climate change requires not only increased awareness but also practical preparedness strategies within healthcare systems.

Looking ahead, it appears crucial to incorporate climate-related issues into psychiatric and psychological specialization programs. Developing educational materials specifically tailored for patients experiencing climate-related distress is also essential.

Limitations

One limitation of this study is its reliance on self-reported data from a convenience sample of professionals attending a specific congress, which may not be representative of all mental health specialists. Future research could benefit from a broader, more diverse sample and the use of standardized assessment tools for eco-anxiety and preparedness levels.

CONCLUSIONS

This study highlights the significant impact of climate change on mental health, encompassing both direct effects of disasters and indirect, chronic anxiety about the planet's future. The findings underscore the critical need for educational initiatives, specialized training for mental health professionals, and the implementation of procedures to prepare the mental healthcare system for the consequences of the climate crisis, which is also consistent with the observations of other researchers (Hough & Counts 2023).

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Contribution of individual authors:

Magdalena Nowak-Andraka – Development of survey questions, collection of survey data, data entry, preparation of manuscript version, literature review, data analysis.

Wiktor Bednarski - Survey question development, survey response collection, data entry, Conducting of statistical calculations, graph creation, interpretation of trends in data, reviewing and editing of manuscript.

Weronika Siemieniuk – data collection and processing, manuscript proofreading, bibliography compilation, drafting individual paragraphs of the article.

Małgorzata Feret – literature review, collection of survey data.

Krzysztof Krysta – scientific and organizational supervision of the project; substantive consultations in psychiatry and public health; verification of the correctness of data interpretation; final proofreading of the entire manuscript; approval of the final version for publication; coordination of the article submission process to the journal.

All authors approved the final manuscript.

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