

## Brief Communication

## Breaking the silence: unveiling the intersection of climate change and youth mental health in Indonesia

Fransiska Kaligis<sup>1</sup>, Grace Wangge<sup>2</sup>, Gabriela Fernando<sup>2</sup>, Ida Bagus Nyoman Adi Palguna<sup>3</sup>, Billy Pramatirta<sup>4</sup>, Natasha Vania Theresia Purba<sup>4</sup>



pISSN: 0853-1773 • eISSN: 2252-8083  
<https://doi.org/10.13181/mji.bc.247147>  
**Med J Indones.** 2023;32:249–53

**Received:** August 30, 2023

**Accepted:** January 05, 2024

**Published online:** February 01, 2024

### Authors' affiliations:

<sup>1</sup>Department of Psychiatry, Faculty of Medicine, Universitas Indonesia, Cipto Mangunkusumo Hospital, Jakarta, Indonesia, <sup>2</sup>Public Health, Monash University, Tangerang, Indonesia,

<sup>3</sup>Department of Health Science, University of the People, Pasadena, United States, <sup>4</sup>Faculty of Medicine, Universitas Indonesia, Jakarta, Indonesia

### Corresponding author:

Fransiska Kaligis  
 Department of Psychiatry, Faculty of Medicine, Universitas Indonesia, Cipto Mangunkusumo Hospital, Jalan Diponegoro No. 71, Central Jakarta 10430, DKI Jakarta, Indonesia  
 Tel/Fax: +62-21-3107741/  
 +62-21-39899128  
 E-mail: fransiska.kaligis@ui.ac.id

### ABSTRACT

In Southeast Asia, home to 362.2 million adolescents, the issue of adolescent mental health is aggravated by climate change. Indonesia, with its large youth population, faces a concerning prevalence of mental health challenges, including anxiety and depression. The intersection of climate change and youth mental health is manifested in the complex interaction of environmental hazards, societal changes, and psychological impact on adolescents and young people. Climate-related hazards exacerbate the existing and give rise to new mental health issues in youths, notably anxiety and post-traumatic stress disorder, and the emerging concepts such as eco-anxiety. Eco-anxiety, a novel concept, amplifies these concerns as youths grapple with climate change-related fears despite not yet being recognized as a formal mental disorder. To address this concern, immediate action should be taken, such as advocating for increased mental health support, youth involvement in climate initiatives, youth advisory committees, increased funding for mental health interventions, and the formulation of a youth-centered mental health policy. This call to action is crucial not only for Indonesia but also provides a framework for addressing similar global challenges, empowering adolescents to confront climate-induced mental health issues while nurturing their resilience.

**KEYWORDS** anxiety, climate change, health policy, mental health, youth

In Southeast Asia, around 362.2 million individuals aged 10–19 years (18.8% of the regional population) are adolescents. The pressing concern of mental health among adolescents, particularly related to suicide, is prominent across the region, including Indonesia.<sup>1</sup> The Indonesia – National Adolescent Mental Health Survey (I-NAHMS) revealed that approximately 15.5 million Indonesian adolescents grapple with various mental health issues, such as anxiety, depression, behavioral disorders, post-traumatic stress disorder (PTSD), and hyperactivity.<sup>2</sup>

Psychiatric problems have been associated with an elevated risk of suicide.<sup>3</sup> Notably, the World Health

Organization (WHO) identifies suicide as the second leading cause of death among adolescents, with 3.9% of Indonesian adolescents having attempted suicide.<sup>1</sup> Factors influencing adolescent mental health span physical, emotional, and social domains, with societal attention often skewed toward the latter.

Climate change and its related hazards lead to adverse environmental and socioeconomic outcomes that could give rise to mental health issues. These mental health issues include depression, anxiety, PTSD, and the emerging concept of eco-anxiety. Eco-anxiety is a relatively novel concept that encompasses the experiences of anxiety related

to environmental crises, especially in adolescents. This article sheds light on these issues to deepen the understanding of the complexities surrounding adolescent mental well-being and its relationship with climate change.<sup>4,5</sup>

### **Climate change and youth mental health**

The recent WHO policy brief underscores the multifaceted impact of climate-related hazards, risks, exposure routes, and vulnerabilities on mental health. Notably, hazards such as extreme heat and floods, coupled with global threats like deforestation and ocean pollution, lead to adverse environmental and socioeconomic outcomes. Anxiety and PTSD are the notable mental health issues arising from the climate crisis. For instance, following the 2013 Super Typhoon Haiyan in the Philippines, over 4 million people were displaced, and 6,000 died, with around 80.5% of survivors experiencing potential mental disorders like depression and PTSD within 4 months post-climate disaster. Climate change causes disasters, escalating forced migration and the existing vulnerabilities, giving rise to mental health concerns, especially depression, anxiety, PTSD, and emerging concepts like eco-anxiety.<sup>6</sup>

Eco-anxiety is a relatively new concept that has gained attention in recent years and is still a subject of growing research interest. Eco-anxiety is defined as a term that apprehends the experiences of anxiety related to environmental crises. It is also defined as the phenomenon of society becoming more aware of the existing and future concerns related to global warming.<sup>7</sup> In Australia, one study reported that young people (18–24 years) had a significantly higher rate of eco-anxiety compared to other age groups.<sup>8</sup> Youths experiencing eco-anxiety have viewed that people have failed to take care of the planet, the future is frightening, they will not have access to the same opportunities as their parents, and the governments are not responding adequately to the impending crisis, with additional feelings of betrayal and abandonment by adults and governments. Even though eco-anxiety is not considered a mental disorder, it can contribute to distress and negative emotions, which could act as persistent, long-term, and likely unavoidable stressors.<sup>7,9</sup> A global survey found that youths' emotions about climate change were dominated with negative emotions: three most frequently found emotions were afraid (67.3%), sad (66.7%), and anxious

(61.8%), while positive emotion such as optimistic occurred less frequently (30.9%).<sup>7</sup>

Indonesians have yet to address eco-anxiety and climate-induced mental health issues adequately. Notably, Indonesia, an agricultural middle-income nation, faces heightened susceptibility to climate-related effects.<sup>10</sup> Climate change can disturb financial stability via income loss, job scarcity, displacement, and forced migration. For instance, prolonged droughts due to climate change considerably disrupt agriculture-dependent areas, causing income loss, indebtedness, and vulnerability. These impacts increase mental disorders, such as anxiety, depression, and PTSD, among agricultural farmers, households, and communities.<sup>7</sup> Recognizing these concerns is crucial for devising effective interventions and support systems.

A case study in Tirta, Pekalongan, Indonesia—a region known for traditional textiles, fishing, and farming—subject to tidal flooding revealed that nearly 93% of children frequently exposed to such floods exhibited moderate anxiety, and approximately 29% displayed mild depression.<sup>8</sup> Given Indonesia's large-scale agriculture and farming industry, the effects of climate change would undoubtedly influence the mental health of vulnerable people, namely farmers, fishing communities, and laborers.<sup>10</sup>

Climate change disproportionately affects mental health and well-being of children and youth livelihood. This is particularly concerning given that they are still in various stages of development, including psychologically, physically, socially, and neurologically. Children and adolescents are potentially the most vulnerable people as they possess limited power to mitigate or avoid such stress, which may lead to mental health problems.<sup>7</sup> Anxiety is the most prevalent impact of climate change among youths, which also further affects their well-being. The climate issue impacts adolescents' well-being, from physical to socio-emotional effects. Worsening chronic illnesses, food insecurity, disruption in education institutions, escalating violence, family separation, and migration are some of the examples.<sup>11,12</sup>

I-NAHMS in 2022 revealed that 1 in 3 adolescents experienced a mental health problem in the past year, with 1 in 20 having a mental disorder. Only about 1,200 psychiatrists serve the nation, primarily on Java Island. Furthermore, the scarcity of trained health workers addressing youth mental health needs persists. Amid

the government's healthcare transformation and impending health bill, enhancing practitioner numbers should align with the capacity to identify and anticipate eco-anxiety issues. Establishing community-involved systems with mental health awareness in primary care services is crucial for holistic support, especially considering the evolving healthcare landscape.<sup>2</sup>

### **Recommendations to support Indonesian Youth's mental health**

In Indonesia, youths have started to realize the direct effects of climate change on their homeland. According to an extensive survey (stratified multistage random sampling involving all provinces with proportional distribution) performed by Indikator and summarized by Yayasan Indonesia CeraH, about 82% and 70% (out of 4,020 respondents) of youth respondents in Indonesia were concerned or very concerned about the impact of the environmental crisis and climate change, respectively. Nevertheless, only 35% of them felt concerned about the impact of climate change on their health.<sup>13</sup>

To address this concern, there are several recommendations, most of which are initiated by youths to take action to support the environmental movement. The survey by Yayasan Indonesia CeraH stated that 20% of the respondents were possible youth climate change activists. Moreover, around two-thirds of the respondents would participate in initiatives to reduce climate change after the pandemic. During the coronavirus disease 2019 (COVID-19) pandemic, there was a rising trend of social-media-based non-profit organizations in Indonesia. Some of such are Greenpeace Indonesia, CarbonEthics, and LindungiHutan.<sup>13-15</sup>

Youth for youth—engaging the voice of youths and partnering with youth-led initiatives—is crucial in promoting and advocating youth mental health across all levels of society, including schools, households, and local communities, particularly in rural and remote areas in Indonesia. Such initiatives may aid in helping better understand the root causes of youth mental health problems, including identifying barriers to mental health support services. Youth-led initiatives can collaborate to co-design and co-create climate-resilient action, including capacity building for youths to face the fast-changing climate impacts. The United Nations also values the youth's action by accommodating it through The Youth Advisory Group on Climate Change.<sup>16</sup>

The Resilience Project, for instance, is a youth-led organization based in the United Kingdom committed to increasing young people's psychological resilience in the face of climate change. It provides young people with training on mental health and climate change.<sup>17</sup> Similarly, Youthopia, a community of young leaders based in Bali, Indonesia, also offers training to empower young people to address environmental issues through a Changemaking Training program.<sup>18</sup> These initiatives can strengthen the evidence available on youth mental health, capturing all demographic factors including age groups, sex, gender, and location, to inform evidence-based youth mental health services. Appropriate communication and messaging on youth mental health are necessary by leveraging the reach of journalists and multimedia, including social media, to promote and advocate youth mental health across all societies with the intent not to put the burden on youth and destigmatize youth mental health problems.

Research suggests that adolescents participating in climate change action are also associated with better resilience and well-being practices. These actions allow youths to practice interpersonal skills and radiate their emotions for better purposes.<sup>11</sup> Hence, empowering and encouraging action and campaigns from youths are recommended. This is demonstrated in Rwanda, where members of youth-led organizations receive training in nutrition advocacy and related issues, such as environmental preservation, gender discrimination, education, and economy, to address hunger in their communities.<sup>19</sup>

Increasing funding for youth mental health is also crucial to prevent the adverse impacts of climate change on young people's mental health. In Indonesia, youth mental health support is inadequate due to the lack of government funding. In 2019, the Indonesian government spent only 2% of its total health expenditure on mental health, and less than 5% of this expenditure was spent on mental health prevention programs.<sup>20</sup> This is insufficient, especially when mental health problems have increased among young people, particularly due to the COVID-19 pandemic and inflation. Therefore, the government must increase the expenditure on youth mental health, especially promotion and prevention strategies, to ensure that youths receive sufficient mental health support.

Youth mental health policy is also essential to support people's mental health. Currently, there is no youth mental health policy in Indonesia.<sup>20</sup> This indicates

that despite the growing concern around youth suicide and mental health effects, youth mental health is not yet a priority for the government. A youth mental health policy is required to guide and inform new and existing youth mental health initiatives in the country and to ensure that their outcomes align with young people's needs. Therefore, to ensure that the policy considers their needs, the government should engage young people and include their voices in policymaking, particularly those disproportionately impacted by mental health and climate crisis.

Establishing a youth advisory group is one way to involve young people in policymaking. For example, the government of New South Wales, Australia, formed a Mental Health Youth Advisory Group to inform the work of its youth mental health services earlier in 2023.<sup>21</sup> The Indonesian government could follow suit and establish a youth mental health advisory group as the first step in creating a youth mental health policy. Through the advisory group, the government can obtain information on Indonesian youth's mental health needs, thus informing policy. This will ensure that the outcomes of youth mental health initiatives in the country fulfill young people's mental health needs.

In conclusion, the emergent recognition of climate change's impact on adolescent's mental well-being in Indonesia underscores the need for robust and concrete actions. A collaborative effort involving government and individuals is imperative to address this concern comprehensively. The established link between climate change and adverse mental outcomes, including eco-anxiety, PTSD, and depression, highlights the urgency of proactive measures, particularly for the youths and vulnerable segments. Recommendations for effective intervention encompass empowering adolescents in climate initiatives, instituting youth advisory committees, and augmenting funding for tailored mental health interventions. This multifaceted approach holds promise in safeguarding the mental health of Indonesian adolescents amid evolving climate challenges.

#### Conflict of Interest

Grace Wangge is the editorial board member but was not involved in the review or decision-making process of the article.

#### Acknowledgment

None.

#### Funding Sources

None.

## REFERENCES

1. World Health Organization, Regional Office for South-East Asia. Mental health status of adolescents in South-East Asia: evidence for action. New Delhi: World Health Organization, Regional Office for South-East Asia Regional Office for South-East Asia; 2017.
2. Center for Reproductive Health, University of Queensland, & Johns Bloomberg Hopkins School of Public Health. Indonesia – National Adolescent Mental Health Survey (I-NAHMS): research report. Yogyakarta: Center for Reproductive Health Universitas Gadjah Mada; 2022.
3. Brådvik L. Suicide risk and mental disorders. *Int J Environ Res Public Health*. 2018;15(9):2028.
4. World Health Organization. Mental health of adolescents [Internet]. Geneva: World Health Organization; 2021 [cited 2023 Jul 6]. Available from: <https://www.who.int/news-room/factsheets/detail/adolescent-mental-health>.
5. World Health Organization. Why mental health is a priority for action on climate change [Internet]. Geneva: World Health Organization; 2022 [cited 2023 Jul 6]. Available from: <https://www.who.int/news/item/03-06-2022-why-mental-health-is-a-priority-for-action-on-climate-change>.
6. Covalan C, Gray B, Villalobos E, Sena A, Hanna F, Campbell-Lendrum D, et al. Mental health and climate change: policy brief. Geneva: World Health Organization; 2022.
7. Hickman C, Marks E, Pihkala P, Clayton S, Lewandowski RE, Mayall EE, et al. Climate anxiety in children and young people and their beliefs about government responses to climate change: a global survey. *Lancet Planet Health*. 2021;5(12):e863–73.
8. Gunasiri H, Patrick R, Snell T, Garad R, Enticott J, Meadows G, et al. Young people's mental health in a changing climate. *Lancet Planet Health*. 2022;6(5):1.
9. Andina YR. ["Eco-anxiety" phenomenon on young generation] [Internet]. Jakarta: Ministry of Health, Directorate General of Health Services; 2023 [cited 2023 Jul 7]. Available from: [https://yankes.kemkes.go.id/view\\_artikel/2060/fenomena-eco-anxiety-pada-generasi-muda](https://yankes.kemkes.go.id/view_artikel/2060/fenomena-eco-anxiety-pada-generasi-muda). Indonesian.
10. International NGO Forum on Indonesian Development. [Climate change forces the vulnerable to become more vulnerable] [Internet]. Jakarta: International NGO Forum on Indonesian Development; 2022 [cited 2023 Jul 7]. Available from: <https://www.infid.org/news/read/perubahan-iklim-memaksa-yang-rentan-semakin-rentan>. Indonesian.
11. McGushin A, Gasparri G, Graef V, Ngendahayo C, Timilsina S, Bustreo F, et al. Adolescent wellbeing and climate crisis: adolescents are responding, what about health professionals? *BMJ*. 2022;379:e071690.
12. Brown MJ, White BP, Nicholas PK. Mental health impacts of climate change: considerations for nurse practitioners. *J Nurse Pract*. 2022;18(4):359–63.
13. Yayasan Indonesia CeraH. [Perception of young voters (Gen Z and millennial) to the climate change problem in Indonesia] [Internet]. Yayasan Indonesia CeraH; 2021 [cited 2023 Jun 23]. Available from: <https://www.cerah.or.id/api-storage/publication/yAxslz3FtghtNKd5n7q1pyAoWjoJ5VEwgLBIFh6T.pdf>. Indonesian.
14. Project Planet Indonesia. Green organization [Internet]. Jakarta: Project Planet Indonesia; 2023 [cited 2023 Jul 11]. Available from: <https://www.projectplanetid.com/indonesia-green-organizations>.
15. Papadopoulos M, Renaldi E. These young Indonesians feel 'eco-anxiety' over climate change. Here's what they are doing to change that [Internet]. ABC News; 2021 [cited 2023 Jun 10]. Available from: <https://www.abc.net.au/news/2021-10-17/young-people-experienced-eco-anxiety-while-trying-to-save-future/100539788>.
16. United Nations. Youth in action [Internet]. New York: United

- Nations; 2023 [cited 2023 Jul 11]. Available from: <https://www.un.org/en/climatechange/youth-in-action>.
17. The Resilience Project. Our story [Internet]. United Kingdom: The Resilience Project; 2023 [cited 2023 Jun 23]. Available from: <https://www.theresilienceproject.org.uk/our-story-1>.
  18. Youthtopia. Connecting and empowering young leaders [Internet]. Indonesia: Youthtopia; [cited 2023 Aug 23]. Available from: <https://www.youthtopia.world/circle-of-youth>.
  19. Sibomana F. Let's include the voice of young people and support their initiatives in nutrition advocacy. Rwanda: UNICEF - Voices of Youth; 2020 [cited 2023 Jul 12]. Available from: <https://www.voicesofyouth.org/blog/lets-include-voice-young-people-and-support-their-initiatives-nutrition-advocacy>.
  20. World Health Organization, Regional Office for South-East Asia. Addressing mental health in Indonesia [Internet]. World Health Organization, Regional Office for South-East Asia; 2022 [cited 2023 Jun 23]. Available from: <https://www.who.int/publications/i/item/9789290210184>.
  21. NSW Government. NSW Health Mental Health Youth Advisory Group [Internet]. NSW Government; 2023 [cited 2023 Jun 24]. Available from: <https://www.health.nsw.gov.au/mentalhealth/services/children/Pages/youth-advisory-group.aspx>.