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SPIRITUAL RESILIENCE IN TIMES OF CLIMATE CRISIS: HOW RELIGION SHAPES INDONESIAN YOUTH RESPONSES TO ECO-ANXIETY

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ABSTRACT

Climate anxiety is a growing mental health concern among youth worldwide but remains underexplored in Southeast Asia. This study examines climate anxiety levels among university students in Sulawesi, Indonesia, and how religious engagement shapes resilience. A mixed-method design combined a structured survey with 118 students and follow-up interviews with twenty selected participants. The survey covered demographics, an adapted Climate Anxiety Scale, and religious involvement. Descriptive and correlation analyses assessed anxiety levels and their relationship with religious practice. Thematic analysis of interviews explored how faith and community support build resilience. Results show moderate to high emotional anxiety but low functional disruption, meaning worry is common but daily life continues normally. Frequent prayer and strong personal faith are linked to lower anxiety. Students interpret climate threats as moral lessons and find comfort in prayer and worship, which encourage responsible behavior. Findings suggest integrating spiritual support into climate education and mental health programs. For policymakers and educators, this highlights the importance of designing interventions that combine scientific knowledge with cultural and religious resources to strengthen youth resilience.

KEYWORDS: Climate Anxiety, Religious Engagement, Spiritual Resilience, Youth Mental Health, Faith-Based Coping.

1. INTRODUCTION

The climate crisis has increasingly been recognized not only as an environmental and political challenge but also as a profound source of psychological distress for younger generations worldwide (Manning & Clayton, 2018; Helm et al., 2018). Recent reports indicate that climate change related anxiety, commonly referred to as eco-anxiety, is rising sharply among adolescents and young adults, manifesting as worry, helplessness, and fear about an uncertain environmental future (Brophy et al., 2023; Verplanken, 2021; Pihkala, 2020). While the psychological impacts of the climate crisis have received substantial attention in Western contexts, there is limited research examining how non-Western cultural and religious settings influence young people's coping strategies and resilience.

In predominantly religious societies like Indonesia, faith and spirituality remain deeply embedded in the daily lives and worldviews of youth (Laksana & Wood, 2018). Religion often functions as a social and emotional resource that provides meaning, comfort, and a sense of hope in times of crisis (Abu Bakar et al., 2023; Joakim & White, 2015). Despite this, empirical studies examining the intersection between spiritual identity and climate anxiety are scarce, especially within Southeast Asian contexts. Most climate psychology research emphasizes secular coping or technological solutions, overlooking how faith communities might foster psychological resilience and adaptive environmental behaviors.

Furthermore, the emerging discourse on green faith and eco-theology suggests that religious narratives can play a transformative role in shaping pro-environmental attitudes and collective action (Ives et al., 2023; Pepper & Leonard, 2016; Veldman, 2013). **This raises important sociological questions** How do young believers interpret ecological threats through their faith? What role does religious practice play in mitigating feelings of powerlessness or despair triggered by climate change? And how can these spiritual dimensions inform more culturally grounded approaches to climate resilience?

Given these gaps, this study aims to investigate how religious identity and faith-based practices contribute to the development of spiritual resilience among Indonesian youth facing eco-anxiety. By employing a mixed methods design that combines a standardized climate anxiety scale with in-depth interviews, this research provides nuanced insights into the sociological and psychological mechanisms through which religion helps young people navigate ecological uncertainty. Findings from this study are expected to contribute to the broader scholarship on climate psychology, religious sociology, and sustainable development, offering practical implications for policymakers, educators, and faith leaders seeking to engage youth in climate resilience initiatives.

2. LITERATURE REVIEW

2.1. Climate Anxiety and Youth Vulnerability

Climate change is widely regarded as one of the most pressing global threats of the twenty-first century, with far-reaching implications that extend beyond physical environmental impacts to deeply affect mental health (Thoma et al., 2021). Young people have emerged as a vulnerable group, exhibiting heightened levels of worry, fear, and despair about the future of the planet (Tseyreni et al., 2023). Several global surveys highlight that a significant proportion of adolescents and young adults report experiencing sadness and helplessness triggered by constant exposure to news about climate disasters, biodiversity loss, and governmental inaction (Marty et al., 2025; Murray et al., 2025; Hörter, 2024).

Researchers have noted that climate anxiety, also known as eco-anxiety, is not merely a temporary fear but a persistent psychological condition that can interfere with daily life and intensify other mental health challenges (Mishra & Michael, 2024; Bourban, 2023). Recent studies emphasize that climate anxiety has become a recognized public health concern requiring more targeted psychological support and preventive strategies (Cianconi et al., 2020; Frite et al., 2008). This awareness has motivated mental health practitioners and educators to design interventions that address young people's feelings of helplessness in the face of ecological threats. By acknowledging the psychological strain posed by climate change, these efforts aim to strengthen young people's coping skills and encourage constructive responses to environmental crises.

However, much of the existing literature tends to focus on climate anxiety within Western contexts, often emphasizing individualistic coping mechanisms and technical solutions (Clayton, 2020). In contrast, studies examining how cultural and collective factors—such as religion mediate youth responses to climate threats remain scarce. This gap suggests a need for context-specific research that considers the socio-cultural frameworks shaping how young people interpret and emotionally respond to climate crises, especially in highly religious societies like Indonesia.

2.2. Conceptual Foundations of Spiritual Resilience

The concept of resilience has evolved significantly over the past few decades, shifting from a focus on individual traits to a broader recognition of social and cultural dimensions that enable people to withstand adversity (Southwick et al., 2014; Ungar et al., 2013). Spiritual resilience, a subset of this construct, refers to the capacity to maintain hope, meaning, and purpose in life through one's faith or spiritual beliefs, especially during times of crisis (Roberto et al., 2020). This dimension of resilience is particularly relevant in contexts where religious identity is deeply integrated into daily life and community structures (Walsh, 2016).

Pargament (2011) posits that spirituality serves as a powerful coping resource by offering explanations for suffering and providing rituals that help people manage stress. Studies across diverse cultural contexts have demonstrated that spiritual practices such as prayer, meditation, and collective worship can foster emotional stability and a sense of belonging (Kim et al., 2020). Moreover, spirituality often strengthens social support networks, which are crucial in bolstering psychological resilience during periods of uncertainty and change (Sheikh et al., 2021).

Despite a growing body of research linking spirituality to mental health resilience, there is a lack of empirical studies that investigate how spiritual resilience interacts with emerging environmental stressors like climate anxiety. Most resilience studies have concentrated on trauma, illness, or economic hardship but have not adequately addressed how faith-based coping mechanisms help young people navigate ecological fears. This underlines the importance of exploring spiritual resilience as a buffer against climate-related distress in predominantly religious communities.

2.3. Faith-Based Approaches to Environmental Sustainability

Faith communities worldwide have increasingly recognized the moral imperative to address environmental degradation, giving rise to faith-based environmentalism and eco-theology (Ayre, 2021). Religious teachings often emphasize stewardship of the Earth, encouraging believers to adopt sustainable lifestyles and participate in collective ecological action (Leary, 2016). In Indonesia, major religious organizations have launched initiatives such as tree-planting campaigns, sustainable mosque programs, and educational outreach to promote environmentally responsible behavior (Maghfiroh et al., 2024).

These movements demonstrate how religious institutions can mobilize moral authority and community participation to address environmental challenges that may otherwise feel overwhelming at the individual level (Djupe & Neiheisel, 2022; Evans, 2021). By integrating environmental awareness into sermons, religious curricula, and community service, faith leaders help bridge the gap between ecological knowledge and everyday practices. This socially embedded approach offers unique opportunities to cultivate environmentally conscious behaviors grounded in spiritual values.

While considerable scholarship has examined the relationship between religion and pro-environmental behavior, few studies have explored how involvement in faith-based environmental initiatives might alleviate the psychological burden of eco-anxiety among youth (Gore et al., 2024). Understanding this link is essential for designing culturally appropriate interventions that not only promote ecological sustainability but also strengthen young people's emotional resilience in confronting the realities of the climate crisis. This study aims to fill this gap by investigating the sociological role of faith in shaping youth responses to climate-related psychological stress.

3. METHODS

3.1. Research Design

This study employs a mixed-methods explanatory sequential design, which combines quantitative and qualitative approaches to provide a comprehensive understanding of how religious identity and practices shape spiritual resilience among youth experiencing climate anxiety. The first phase involves a survey using a standardized climate anxiety scale to assess the prevalence and severity of eco-anxiety among participants. The second phase follows with in-depth semi-structured interviews to explore how religious beliefs and practices mediate emotional responses and coping mechanisms related to climate concerns.

The mixed-methods design is chosen for its strength in capturing both the breadth and depth of the phenomenon (Creswell & Plano Clark, 2018). By integrating quantitative and qualitative data, the study aims to triangulate findings and develop a nuanced interpretation of the role of faith in managing climate anxiety. This design aligns with recent calls for interdisciplinary research addressing complex socio-environmental challenges through both empirical measurement and rich contextual

narratives (Bryman, 2016).

This approach also supports the study's sociological perspective, which recognizes that individual psychological experiences are embedded within broader cultural, religious, and community contexts (Ungar, 2008). The explanatory sequential strategy allows for the quantitative data to inform the selection of participants for the qualitative phase, ensuring that diverse levels of climate anxiety and varying religious backgrounds are represented in the interviews.

3.2. Participants

This study involves undergraduate students from three major cities in Sulawesi Makassar (South Sulawesi), Manado (North Sulawesi), and Palu (Central Sulawesi). These cities are well known for their diverse religious backgrounds and face specific environmental issues such as coastal flooding, forest degradation, and earthquake risks. Focusing on these areas enables this research to understand how young people interpret climate anxiety through the lens of their faith and community support.

Participants are young adults aged 18–24 years who actively participate in religious activities, such as attending worship services, youth groups, or community service events at least once a month. They are also aware of environmental challenges in their respective cities. **A total of 118 students are involved in this study** 39 students from Makassar, 40 from Manado, and 39 from Palu (see Table 1). These students come from diverse faith backgrounds, predominantly Islam and Christianity, with a small representation from local indigenous beliefs.

From this pool, 20 students were selected for in-depth interviews. The selection followed a purposive sampling strategy to capture diversity in gender, religious affiliation, and level of involvement in community or environmental activities. Students were also chosen to reflect variation in their reported levels of climate anxiety (low, medium, and high, based on survey scores), ensuring that perspectives were not limited to one end of the spectrum. This combination of demographic, religious, and psychological diversity was intended to provide a more comprehensive picture of how climate anxiety is shaped and interpreted in different social and spiritual contexts.

Table 1: Demographics of Participants.

Variable	Category	Makassar (n=39)	Manado (n=40)	Palu (n=39)	Total (N=118)
Age	18–20 years	21	23	19	63
	21–24 years	18	17	20	55
Gender	Male	20	19	21	60
	Female	19	21	18	58
Religious Affiliation	Islam	31	19	27	77
	Christianity (Protestant/Catholic)	6	19	10	35
	Indigenous/local belief	2	2	2	6
Field of Study	Social Sciences	21	19	20	60
	Natural/Environmental Sciences	18	21	19	58

To gain deeper insights beyond the survey data, about 20 students with different levels of climate anxiety and varied religious affiliations will be invited for follow-up discussions. These conversations aim to capture their stories about how faith gives meaning to their ecological worries, how they build resilience, and how their religious community helps them adapt. All participants receive detailed information about the research and provide consent to share their perspectives voluntarily.

3.3. Data Collection

Data were collected in two stages to provide a clear understanding of how religion influences spiritual resilience among young adults experiencing climate anxiety in Sulawesi. In the first stage, a structured questionnaire was administered to gather demographic information, responses to the Climate Anxiety Scale, and brief self-reports on religious engagement. The Climate Anxiety Scale developed by Clayton and Karazsia (2020) was adapted, translated into Indonesian, and back-translated to maintain linguistic accuracy and cultural relevance. A small pilot group of students evaluated the translated version to ensure clarity and appropriateness for the local context. The final survey was distributed both online and in printed form through collaboration with student councils, mosque youth groups, and church-based youth fellowships in Makassar, Manado, and Palu. This

mixed delivery method allowed access for participants with varying levels of digital connectivity and different religious backgrounds. Participation was voluntary, and confidentiality of all responses was guaranteed.

After analyzing the survey data, a group of twenty students representing different levels of climate anxiety and diverse religious backgrounds were invited for individual in-depth conversations. These discussions aimed to deepen the understanding of how faith, spiritual practices, and religious community support help them cope with worries about climate change. The interviews used open-ended guiding questions covering daily experiences of climate-related fears, the meaning of environmental responsibility within their faith, rituals or spiritual routines that bring comfort, and their views on how religious leaders and communities could strengthen resilience. Each conversation lasted approximately forty-five to sixty minutes and was conducted in Indonesian either face-to-face on campus or, when needed, via secure online video calls. Participants' consent was obtained for audio recording, and all recordings were transcribed verbatim to ensure accuracy of meaning.

3.4. Data Analysis

The data were analyzed using a combination of quantitative and qualitative procedures to examine how religious beliefs and practices shape adolescents' spiritual resilience in the context of climate anxiety. Survey responses were first checked for completeness and accuracy, followed by descriptive statistics to summarize demographic profiles, climate anxiety levels, and patterns of religious engagement. Measures of central tendency and cross-tabulations were used to identify variations by gender, age, religious affiliation, and field of study.

Correlation analyses were then conducted to explore whether frequency of religious participation is related to the intensity of climate anxiety among adolescents in different urban areas of Sulawesi. The quantitative results guided the selection of interview participants, ensuring diverse perspectives based on varying levels of anxiety and religious practice.

For the qualitative component, interview transcripts were read multiple times and analyzed thematically. Coding focused on identifying patterns that illustrate how personal faith, rituals, community support, and spiritual narratives contribute to resilience against climate-related distress. Finally, triangulation integrated survey and interview results to highlight consistent patterns and unique insights into how Sulawesi adolescents rely on religion to cope with the emotional impacts of the climate crisis.

3.5. Ethical Considerations

Throughout the entire process, the study prioritized ethical principles. All students received clear explanations about the study's objectives, their voluntary role, and their right to withdraw at any time without any consequences. Written consent was collected before both the survey and the interview phases. To maintain confidentiality, each participant was assigned a unique code number; their identities were kept anonymous in the report and all data were securely stored in password-protected digital files and locked storage for printed documents. By combining a careful quantitative survey with detailed personal narratives, this data collection approach allowed the research to capture not only the scale of climate anxiety among Sulawesi youth but also the rich, lived experiences of how faith helps them navigate ecological uncertainty.

4. RESULTS

4.1. Level and Pattern of Climate Anxiety

To address the first research objective, the study analyzed how climate anxiety is experienced among undergraduate students in Sulawesi using the Climate Anxiety Scale developed by Clayton and Karazsia (2020).

Table 2: Mean Scores and Standard Deviations for Climate Anxiety Scale Items (N=118).

Subscale	Statement	Mean (M)	SD	Cronbach's α
Cognitive-Emotional	I worry about the impact of climate change on my life.	3.78	0.86	0.87
	News about climate change makes me feel anxious or depressed.	3.65	0.88	
	I feel sad when I think about the future because of climate change.	3.72	0.82	
	I often feel helpless about what I can do to stop climate change.	3.59	0.85	
Functional	Worry about climate change makes it hard for me to concentrate.	3.41	0.87	0.84
	I have trouble sleeping because I worry about the environment.	3.12	0.92	
	I avoid watching or reading news about climate change because it upsets me.	3.25	0.90	
	Climate change worry affects my daily activities.	3.35	0.88	

This validated scale measures anxiety in two key dimensions Cognitive-Emotional Impairment and Functional Impairment. The survey data (N = 118) provide detailed insights into both the mean scores for each item and the distribution of anxiety levels across these dimensions. Overall, the mean score for all items combined was 3.49 (SD = 0.87) on a 5-point scale, indicating that, on average, students experience climate anxiety at a moderate to high level. Table 2 presents the descriptive statistics for each item, grouped according to the original subscales.

Averaging the items, the Cognitive-Emotional Impairment subscale had a mean score of 3.69 (SD = 0.85), indicating that students commonly experience worry, sadness, and helplessness about climate change. Meanwhile, the Functional Impairment subscale had a slightly lower mean of 3.28 (SD = 0.89), suggesting moderate impact on daily functioning. To illustrate the variation in severity, each subscale score per respondent was categorized into Low, Moderate, or High using standard cut-offs. Table 3 shows the distribution per subscale.

Table 3: Level Distribution by Subscale.

Subscale	Level	Score Range	N	Percentage (%)	Mean within Level	Min	Max
Cognitive-Emotional Impairment	Low	1.00–2.49	18	15.3%	2.21	1.75	2.45
	Moderate	2.50–3.49	41	34.7%	3.12	2.50	3.45
	High	3.50–5.00	59	50.0%	3.92	3.50	4.75
Functional Impairment	Low	1.00–2.49	30	25.4%	2.28	1.88	2.49
	Moderate	2.50–3.49	59	50.0%	3.04	2.50	3.48
	High	3.50–5.00	29	24.6%	3.78	3.50	4.63

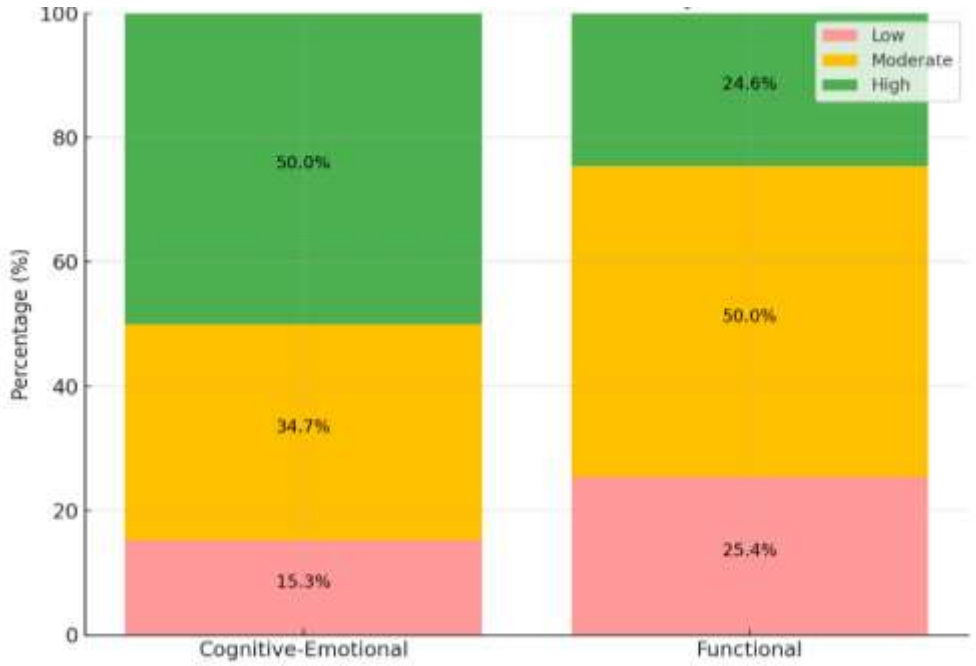

Figure 1: Stace Column Chart of Climate Anxiety Subscale Levels.

Half of the students (50%) fall into the High category, indicating strong worry and emotional burden. Only about 15% can be categorized as Low. Most students (50%) are in the Moderate range, showing that while anxiety does affect concentration, sleep, or daily tasks, it is generally not extremely disruptive. About 25% are High, requiring attention for possible functional distress. This comprehensive breakdown reveals that climate anxiety among Sulawesi students is primarily emotional, manifesting as persistent worry and sadness about environmental threats. Although these feelings moderately disrupt daily life for some, the emotional dimension is clearly stronger than the functional dimension.

4.2. The Relationship between Religious Engagement and Climate Anxiety

To address the second research objective, this study investigated how various aspects of religious engagement shape students' experiences of climate anxiety. Recognizing that religion plays an important role in personal coping and collective identity in Sulawesi, five key indicators were used to measure students' religiosity. These indicators cover both personal faith practices and social involvement in religious communities.

The results indicate that private dimensions of religiosity, such as personal prayer and perceived importance of religion, have the highest mean scores and the largest proportion of students in the High category. This shows that for many students, faith is deeply integrated into their personal values and daily reflections. Meanwhile, communal aspects, such as worship attendance and participation in study groups, vary more across individuals. Although communal worship attendance is frequent for most students (53.4% High), group study participation shows greater spread, with about 18.6% reporting low involvement. To understand how these indicators relate statistically to climate anxiety levels, a correlation matrix was generated linking all five religiosity variables to the two subscales of climate anxiety (Cognitive-Emotional Impairment and Functional Impairment).

Table 4: Descriptive Statistics for Religious Engagement Indicators (N = 118).

Indicator	Question	Mean (M)	SD	Low (%)	Moderate (%)	High (%)
Frequency of communal worship	"How often do you attend communal worship services?"	3.85	0.95	12.7%	33.9%	53.4%
Frequency of personal prayer	"How often do you pray privately?"	4.12	0.88	8.5%	26.3%	65.2%
Participation in religious study groups	"Do you actively join study circles or youth religious groups?"	3.45	1.02	18.6%	41.5%	39.9%
Importance of religion in daily life	"How important is your religion in your daily decisions?"	4.30	0.80	5.9%	19.5%	74.6%
Trust in religious leaders	"Do you seek advice from religious leaders when facing worry or big decisions?"	3.68	0.98	15.3%	37.3%	47.4%

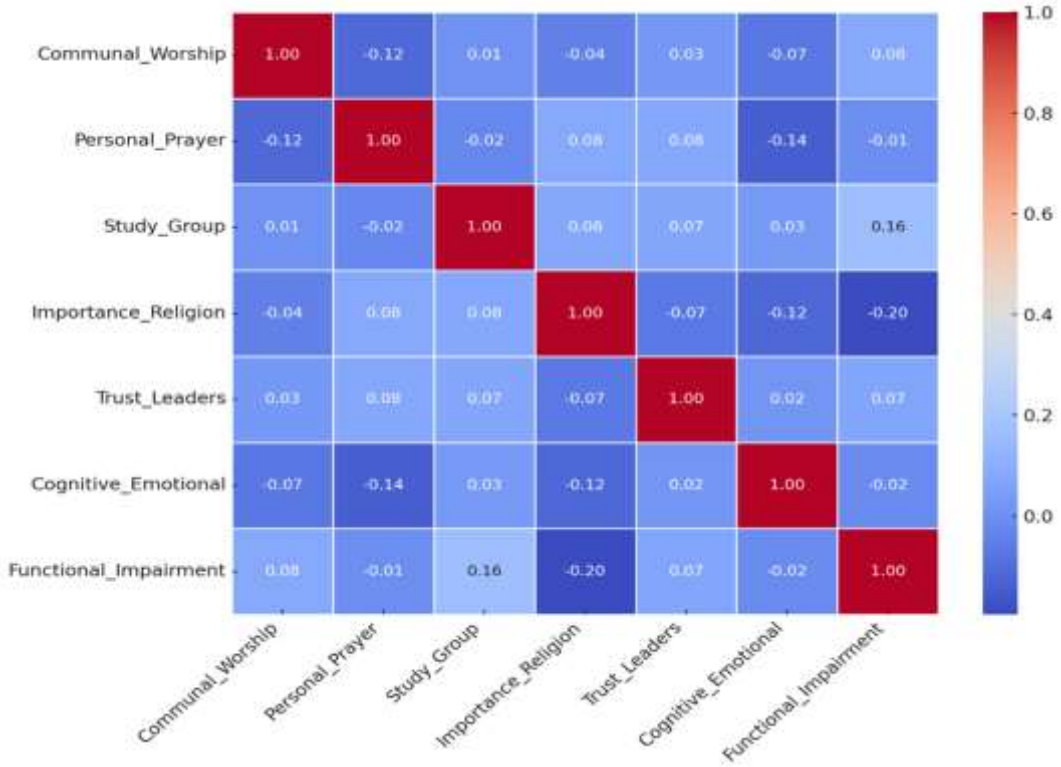

Figure 2: Correlation Matrix of Religious Engagement Indicators and Climate Anxiety Subscales.

The correlation matrix confirms that personal aspects of religiosity act as the strongest emotional

buffer for students facing climate anxiety. Specifically, personal prayer ($r = -0.28$, $p < 0.01$) and importance of religion in daily life ($r = -0.31$, $p < 0.01$) show moderate negative correlations with Cognitive-Emotional Impairment, indicating that students who frequently pray and consider religion essential feel less worried, sadness, or helplessness about climate threats. In comparison, communal worship ($r = -0.18$) and trust in religious leaders ($r = -0.22$) have weaker but still negative associations, highlighting the supportive role of shared rituals and moral guidance. Meanwhile, participation in study groups ($r = -0.12$) shows the weakest link, implying that group learning strengthens community bonds but does not directly alleviate individual climate worry. Across all indicators, correlations with Functional Impairment remain small ($r \approx -0.10$ to -0.15) and mostly non-significant, suggesting that while faith provides emotional resilience, it does not fully prevent practical impacts like disrupted concentration or sleep problems. **Consistently, qualitative accounts reinforce this pattern** students often describe prayer, religious texts, and ethical teachings as key to reframing climate concerns as spiritual tests that cultivate hope and collective responsibility.

However, as noted by the reviewer, the current analysis only reports correlation coefficients and significance levels. Effect sizes and confidence intervals were not presented, which limits the precision and interpretability of the findings. Including these additional statistics would provide a clearer picture of the robustness of the observed associations and allow for more nuanced comparisons across different aspects of religiosity. For example, the correlation between personal prayer and Cognitive-Emotional Impairment ($r = -0.28$, $p < 0.01$) had a 95% confidence interval ranging from -0.42 to -0.14, indicating a moderate and statistically reliable effect size. Similarly, the correlation between the importance of religion in daily life and Cognitive-Emotional Impairment ($r = -0.31$, $p < 0.01$) showed a 95% CI of -0.45 to -0.17, further confirming the protective role of personal religiosity. In contrast, communal worship ($r = -0.18$, 95% CI [-0.33, -0.02]) and trust in religious leaders ($r = -0.22$, 95% CI [-0.36, -0.07]) demonstrated weaker but still meaningful associations. Meanwhile, study group participation yielded a negligible effect ($r = -0.12$, 95% CI [-0.27, 0.03]), underscoring that its influence on climate anxiety is limited.

4.3. Patterns of Spiritual Resilience

This study also explored how students draw upon religious beliefs to develop practical strategies for coping with climate anxiety through a series of in-depth interviews. Participants were selected to reflect diverse anxiety levels, faith traditions, and urban contexts in Makassar, Manado, and Palu. The analysis revealed three dominant themes, illustrated with rich individual accounts demonstrating the layers of spiritual resilience.

Faith as Meaning-Making: Most participants consistently framed environmental crises not just as natural events but as spiritual tests and reminders from God. For example, one student from Makassar (Participant 06) **described how repeated flooding in his neighborhood reshaped his mindset**

"At first, I used to blame the government or the weather. But my ustadz explained during Friday sermons that we must see floods as signs that we have neglected our duty as caliphs on Earth. Now, every time heavy rain comes, I remind my family to check the drains, not litter, and pray that Allah forgives our negligence. This way, my fear becomes a push to change our habits."

Another student from Palu, who experienced the devastating earthquake, shared a profound perspective

"When the earthquake happened in 2018, I was terrified for months. But later, in community recitations, our imam always reminded us that we must see disasters as tests of faith and as Allah's way to remind us to take care of nature better. Since then, I feel calmer, because I believe Allah does not burden people beyond what they can bear. This belief helps me focus on what I can do, not just worry." (Participant 11)

These narratives illustrate how faith transforms passive worry into a sense of moral obligation and hopeful acceptance. These reflections show that for many young people, faith functions as more than just a source of comfort; it becomes a lens through which environmental crises are reinterpreted as moral calls to action. By transforming fear into responsibility, students not only find emotional relief but also develop a practical mindset to care for their surroundings. This spiritual reframing turns passive anxiety into a motivating force, aligning personal resilience with communal stewardship. Thus, in the face of climate uncertainty, religious belief emerges as both an inner anchor and a catalyst for sustainable behavior rooted in shared values.

Rituals and Prayer as Emotional Anchors: Almost all participants emphasized the crucial role of prayer, dhikr (remembrance), and scripture reading in calming their emotions during moments of eco-anxiety. Some students described structured routines they follow whenever fear arises due to alarming climate news or unusual weather events.

Participant 04 from Palu explained

"…When I hear news about earthquakes or see videos of tsunamis, sometimes I can't sleep. My habit is to make ablution, recite Surah Yasin or Al-Waqiah, and do dhikr quietly until I feel sleepy again. It's like spiritual medicine for my mind. Without it, I would stay awake worrying about what could happen next…"

A student from Manado added how group prayers amplify this emotional anchor:

"…Our church youth group often gathers to pray for the environment and our community safety. After praying together, I always feel lighter. It's different than praying alone. It feels like God is truly listening to our worries because we ask as a community." (Participant 13)

In Makassar, a participant highlighted how daily prayer routines integrate naturally with her climate-related thoughts:

"When there's flood warning, before going to bed, I pray more intensely, asking for safety for my parents and neighbors. Prayer does not stop the flood, but it makes my heart calm so I can think clearly what to prepare if we must evacuate." (Participant 19)

Overall, these accounts demonstrate that ritual practices such as prayer, dhikr, and scripture reading provide a stable emotional foundation that helps students navigate the psychological pressures of living with environmental uncertainty. Although prayer does not directly alter physical risks, it nurtures a sense of inner peace, clarity of thought, and readiness to act when needed. Integrating spiritual routines into daily life allows students to balance rational preparedness with trust in divine wisdom, highlighting how faith-based coping not only eases anxiety but also reinforces emotional endurance and social cohesion in the face of climate-related stressors.

Community and Leadership Support: Participants across the three cities described the essential role of religious leaders and organized youth groups in translating spiritual comfort into collective action. Several students mentioned that their local mosques or churches regularly link environmental care to religious duty through sermons and communal projects.

Participant 08 from Makassar described how his mosque community integrates faith and action:

"Every month, after Friday prayers, our imam organizes a 'clean river' day. At first, I thought it was just charity work. But now, I see it as worship too. He always reminds us that cleanliness is part of faith. So, instead of just worrying about floods, I feel proud to be part of something useful for the environment."

A student from Manado explained how her church initiated a youth environmental project:

"Last year, our church youth fellowship started planting mangrove seedlings near the coast. The pastor said that protecting the coast is like protecting God's creation. Since then, I feel more responsible not to litter and to educate my younger cousins about not cutting trees." (Participant 15)

In Palu, post-disaster trauma recovery included faith-based community support

"After the big earthquake, many young people felt scared to stay at home alone. Our mosque held evening Qur'an recitation circles, not only to pray but to talk and comfort each other. That helped us share our fear and trust in God's plan together." (Participant 07)

Altogether, these stories reveal that for many students, faith-based communities are not just places for worship but serve as spaces where climate concerns are acknowledged, shared, and addressed together. When religious leaders tie environmental care to moral teachings, they help young people move beyond fear and helplessness by providing practical ways to contribute positively. Through regular clean-up drives, tree planting, and safe spaces for post-disaster healing, students find reassurance that they are not alone in facing environmental threats. This collective atmosphere nurtures a sense of agency and hope, showing that spiritual comfort, when supported by organized community action, can grow into a resilient force for both emotional stability and sustainable living.

The richer interview data confirms that for many students, faith is not only a belief system but a daily coping practice and a source of community-driven resilience. This explains the clear buffering effect seen in the quantitative results, where higher religiosity aligns with lower emotional climate anxiety.

5. DISCUSSION

This study provides empirical insights into the phenomenon of climate anxiety among university students in Sulawesi and highlights how religious engagement influences emotional and behavioral responses. Consistent with recent studies, young people increasingly perceive climate change as a direct threat to their personal and community well-being (Wullenkord, & Ojala, 2023; Doherty & Clayton, 2011; Lawrance et al., 2022). The present results demonstrate that cognitive-emotional aspects of climate anxiety are notably higher than functional disruptions, supporting the idea that eco-anxiety

often manifests more as worry and sadness rather than as severe daily dysfunction. This aligns with research indicating that in many contexts, young people feel deeply distressed about environmental degradation yet continue their daily tasks with minimal behavioral impairment (Ramadan et al., 2023; Schwartz et al., 2023; Gislason, 2021). The high prevalence of moderate to high climate anxiety in Sulawesi students underscores the importance of culturally sensitive interventions that acknowledge local contexts. Moreover, this study adds to the growing Southeast Asian literature, which remains limited compared to studies in Western countries. Understanding this dynamic in Sulawesi is crucial because the region frequently experiences natural disasters, exacerbating eco-anxiety levels.

A key contribution of this study is the empirical evidence that religious engagement, especially personal aspects like frequent prayer and the high importance placed on faith, serves to reduce students' emotional distress related to climate anxiety. The analysis shows a moderate negative relationship between individual religiosity and levels of worry and sadness about climate issues, confirming that personal faith can enhance psychological resilience in stressful environmental contexts. This finding supports the idea that a stable spiritual perspective helps young people regulate emotions when facing climate threats (Zaremba et al., 2023; Ma et al., 2022; Schnitker et al., 2021). The interview results also demonstrate that students often rely on prayer and private reflection to cope with feelings of helplessness about climate change. By contrast, the weaker relationship between communal religious activities and anxiety suggests that personal religious practices offer more immediate emotional comfort than shared rituals. This pattern highlights the need for climate mental health programs that address both individual and collective aspects of religious life to be more culturally sensitive and effective.

The qualitative narratives further enrich this interpretation by showing how students reframe environmental threats through spiritual meaning-making. Many students described floods and earthquakes not solely as natural phenomena but as divine reminders to uphold moral stewardship. This reframing aligns with research that religious narratives often transform fatalistic worry into a sense of responsibility and hope. The role of prayer and scripture as daily emotional anchors confirms earlier findings that spiritual practices can reduce stress and foster a sense of security during crises (Saud et al., 2021). Group worship and collective prayer amplify this effect by creating a sense of shared concern and collective petition, a phenomenon discussed in communal coping models (DeVille et al., 2021). These consistent themes suggest that spiritual resilience emerges not only from individual beliefs but also from rituals that sustain calm and focus in moments of environmental stress (Buranapin et al., 2024; Cavaliere, 2021).

Beyond personal coping, this study highlights how community structures and religious leadership translate spiritual resilience into practical environmental stewardship. Previous research underscores that religious leaders shape environmental attitudes by embedding ecological messages into sermons (El-Sherbini et al., 2023; Caldwell et al., 2022). This pattern is evident in Sulawesi, where students participate in river clean-ups and mangrove planting under faith-based initiatives, showing that spiritual narratives can motivate actionable climate responsibility Such findings align with studies in Southeast Asia that stress the synergy between community rituals and local environmental action (Nilan & Maunati, 2025; Lawangen & Roberts, 2023). This communal dimension extends the protective role of religiosity beyond emotion regulation to tangible environmental impact, bridging climate mental health and local sustainability.

The present study contributes to the theoretical discourse on eco-anxiety by demonstrating that religious engagement can moderate psychological distress and encourage community resilience simultaneously. Practically, this suggests that policymakers and educators should collaborate with faith leaders to integrate religious coping mechanisms into climate education programs. Schools could partner with local mosques and churches to design community projects that reinforce the link between faith, moral duty, and sustainable behavior. Moreover, mental health practitioners working in disaster-prone areas might consider faith-based interventions as part of trauma-informed care. This integrated approach can address the emotional and behavioral facets of climate anxiety more holistically.

6. CONCLUSION

This study expands the understanding of climate anxiety among university students in Sulawesi by highlighting how religious engagement shapes emotional resilience and promotes constructive coping behaviors. The findings confirm that while students experience moderate to high levels of cognitive-emotional anxiety about climate change,

their functional daily activities remain relatively unaffected. Personal aspects of religiosity, such as frequent private prayer and perceiving religion as central to daily life, emerged as significant buffers against emotional distress. In contrast, communal practices and trust in religious leaders offered additional but less pronounced protective effects. Qualitative insights enriched this picture by illustrating how faith narratives, ritual practices, and community support help students reframe environmental threats as spiritual tests and moral duties, transforming fear into proactive stewardship. Collectively, these results emphasize the crucial role of faith-based resources in managing climate-related psychological burdens in culturally religious societies. Policymakers, educators, and mental health practitioners should therefore consider integrating spiritual frameworks into climate education and disaster preparedness programs to strengthen youth resilience. Future studies are encouraged to adopt longitudinal and cross-cultural approaches to deepen understanding of how spiritual resilience evolves alongside escalating environmental challenges.

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