

# The effect of climate change anxiety on social work students in Turkey

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## Abstract

This study aims to explore the impact of climate change anxiety on various aspects of social work and examine the relationship between anxiety and socio-demographic variables. The study's participants comprised students enrolled in social work education programs in Turkey. The results suggest that students who are highly anxious about climate change express anxiety regarding various problem areas within social work. The study suggests that anxieties about climate change can potentially lead to anxiety within social work domains, thus exerting a negative impact on social work policy and practices.

## Keywords

Climate change anxiety, ecological social work, migration, poverty, social inequalities, vulnerable groups

## Introduction

Mass extinction, alterations in nitrogen and phosphorus cycles, habitat destruction, land degradation, ocean acidification, and various other biophysical and biochemical changes are resulting in environmental transformations that present significant threats to ecosystems, culture, health, and the economy (Gugushvili and Otto, 2023; Klemmer and McNamara, 2020; Singer, 2021). Climate change, as a significant driver of environmental change, exacerbates the current situation (leading to more intense hurricanes, forest fires, floods, rising sea levels, and droughts), resulting in major humanitarian disasters and social unrest (Kemp and Palinkas, 2015; Papadopoulou and Teloni, 2023). For instance, the alarming reality that approximately 1000 children perish daily from hunger and disease as a direct result of climate change highlights the devastating impact of this predicament (Salamon, 2016). Furthermore, in addition to the fatal consequences of climate change,

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it has the potential to evoke fear and anxiety in individuals, leading to heightened stress levels (Stewart, 2021). This situation varies across demographic variables and countries depending on social, cognitive, and cultural factors (Poortinga et al., 2019; Van Der Linden, 2017).

Climate change has become a crucial issue for governments and is gaining recognition in the field of social work (Cattaneo et al., 2019; Eroğlu, 2020). As known, social work encompasses a range of practices that empower individuals in many areas crucial to society, such as poverty, migration, ecological justice and sustainability, services for vulnerable groups, gender, and social inequalities (Selcik and Güzel, 2016). The role of social workers in addressing climate change encompasses both providing direct assistance to individuals impacted by its effects and spearheading societal and policy-level transformations (Netting et al., 2013). From this standpoint, the imperative role of social workers in mitigating the repercussions of global climate change and their active engagement in the process are indispensable (Dominelli, 2013). This situation provides us with a reference regarding the critical role of the social work profession in reducing the impacts of climate change. Furthermore, some research suggests that the ecological paradigm, which prioritizes the environment and people over a human-centered approach, is becoming increasingly relevant in the field of social work (Boetto et al., 2020; Wang and Altanbulag, 2022). The ecological paradigm extends beyond a human-centered approach, placing nature and the entirety of living beings at its core (Kara, 2018). As a result of this perspective, concepts such as ecological justice and sustainability are seen to be gaining more recognition and significance within the realm of social work (Boetto et al., 2020; Dominelli, 2013; Wang and Altanbulag, 2022). The trend from social justice to ecological justice can indeed be observed both in social work curricula and in the international literature (Daddow, 2022; Sugirtha and Littleflower, 2015). When this situation is evaluated in the context of social work education provided in Turkey over the course of 4 years, it is evident that courses addressing domains such as migration, poverty, and social assistance exist; however, each university follows a distinct social work curriculum, and efforts to establish a common curriculum differ from international practices (SWNCEP Working Group, 2020). This situation allows us to assert that social work curricula in Turkey are distant from the ecological paradigm.

Studies from various world regions suggest that climate change can have a significant impact on certain risk groups, such as children, women, and the elderly (Harvison et al., 2011; Seasons, 2021). On the contrary, certain studies demonstrate the importance and effectiveness of social protection programs in mitigating the effects of climate change (Bowen et al., 2020; O'Brien et al., 2018), and they can generally be divided into three categories: regular cash transfers or in-kind benefits for vulnerable populations (Özmen and Dönmez, 2021; Prifti et al., 2019), social insurance to protect people from potential harm (Hansen et al., 2019; Sett et al., 2021), and labor market interventions to provide a safety net for the employed (Bowen et al., 2020; O'Brien et al., 2018).

The relationship between gender and social inequalities with climate change has been extensively studied, and the findings indicate that women are disproportionately affected by the negative consequences of climate change (Babugura, 2016; Escalante and Maisonnave, 2023). This is largely due to the economic impacts of climate change, which exacerbate existing inequalities (Ribot, 2010). Some studies point out that, in developing countries, women are less involved in the labor market and contribute more to household chores than men, further exacerbating gender inequalities (Eastin, 2018; Escalante and Maisonnave, 2023). The social work approach to this issue focuses on empowering women through education and other means (Carr and Thompson, 2014; Friedman et al., 2019).

Poverty and climate change are also closely linked (Tol, 2018; Tonn et al., 2021), with climate change having a more severe impact on poor countries (Edvardsson Björnberg and Hansson, 2013; Quisumbing et al., 2018). As climate change worsens, comprehending the root causes of poverty

and how poverty is perceived has become crucial in mitigating its effects and reducing its incidence (Tien, 2022). To this end, research has been conducted on students' attitudes toward poverty and poor individuals (Castillo and Becerra, 2012; Clark, 2007). Furthermore, there is evidence in the literature that climate change deepens poverty in the context of social work (Dominelli, 2012; Wu and Greig, 2022).

The loss of habitats due to climate change is a significant contributing factor in migration decisions and has become a key driving force behind migration movements (Hardy et al., 2017; McLeman, 2013). Climate change and its impacts are currently one of the most pressing issues on the global agenda (Cattaneo et al., 2019) and a growing anxiety for policymakers and researchers in the field of migration (Carling and Collins, 2018; Schewel, 2019). Climate adaptation, as opposed to unrestricted energy policies, is increasingly recognized as a crucial area of focus, requiring international cooperation to find a solution (Smirnov et al., 2023).

There is a growing body of literature in the field of social work on the relationship between climate change, the environment, and social work in different contexts, including students, professionals, service users, and the public. This literature highlights topics such as students' perceptions of environmental issues and environmental justice (Chonody and Sultzman, 2022), attitudes (Wachholz et al., 2014), awareness (Jamelske et al., 2013), public opinion on climate change and climate scientists (Funk and Kennedy, 2016), attitudes of social work students toward the environment (Faver and Muñoz, 2013; Miller and Hayward, 2014), the relationship between social work and environment from the perspective of social workers (McKinnon, 2013), and their environmental beliefs (Shaw, 2011), but no research has been found that specifically addresses the relationship between social work students' anxieties about climate change and selected themes: (1) ecological justice and sustainability, (2) provision of social support and welfare services for vulnerable groups, (3) gender and social inequalities, (4) poverty, and (5) migration. The lack of research on the relationship between social work students' anxieties about climate change and selected themes highlights a gap in the literature. The absence of studies in this area makes it difficult to understand the anxieties and perspectives of social work students regarding these selected themes in the context of climate change. Anxiety is a phenomenon that guides individuals' attitudes and behaviors toward potential future risks and motivates them to take action (Ekholm, 2020). Therefore, evaluating climate change anxieties in conjunction with selected themes can contribute to the effectiveness of intervention-oriented services by revealing the interplay between these areas.

Turkey's social policy approaches, which have been developed in conjunction with globalization, are gradually evolving and moving toward the axis of leading institutions such as the International Monetary Fund (IMF), the World Bank, and the European Union (Tasgin-Sahin and Ozel, 2011). In this period of progressive development in the field of social work, this study, conducted just before the devastating earthquake that occurred in Turkey on February 6, 2023, aims to investigate the relationship between social work students' anxieties about climate change in Turkey and these critical selected themes. Understanding how social work students perceive and respond to climate change anxieties within specific themes will help inform interventions and services related to climate change. Ultimately, this research aims to shed light on the intersection of social work, climate change, and the anxieties of future social work professionals.

## **Materials and method**

### *Participants*

The population of this research was composed of students from undergraduate social work programs in both public and private universities in Turkey. According to the Program Atlas of the

Turkish Higher Education Council (YÖK Atlas), a total of 16,016 students were enrolled in social work undergraduate programs as of the 2022–2023 academic year, comprising 3021 male and 12,995 female students (YÖK Atlas, 2022). As a result of these statistics, based on the calculation using the Raosoft Sample Size Calculator, a sample size of 71 male and 305 female students would provide sufficient representation of the population being studied (Raosoft, 2004). The sample of this research was collected on a voluntary basis, with a total of 449 social work students, 81 male and 368 female, who agreed to participate in the study through a simple random sampling method.

## *Measures*

The data collection tool (questionnaire) utilized in this research comprises two primary sections, excluding the section that encompasses the socio-demographic characteristics of the students. The first section comprises questions pertaining to significant problem areas within the field of social work. The second section incorporates the Climate Change Anxiety Scale (CCAS), which was developed by Stewart (2021) and adapted into Turkish by Gezer and İlhan (2021). The details of the parts of the data collection tool are as follows,

### *Questions regarding problem areas within the field of social work*

The questions in this section of the questionnaire were formulated by the researchers based on a literature review and included in the survey. In addition, the opinions of two expert academicians in the field were taken into account during the inclusion of these questions in the questionnaire. The aim of this section is to assess the influence of climate change anxiety on specific problem areas related to social work from the perspective of students. This section comprises 10 questions, which are categorized into 5 themes: (1) Ecological justice and sustainability, (2) Provision of social support and welfare services for vulnerable groups, (3) Gender and social inequalities, (4) Poverty, and (5) Migration (Themes 1–5).

### *CCAS*

The CCAS is utilized as a 5-point Likert-type scale, ranging from ‘Never’ (1) to ‘Always’ (5). It consists of 10 questions and is employed to assess the level of anxiety regarding climate change. The scoring system indicates that higher scores correspond to higher levels of anxiety. The scale’s reliability has been examined through various coefficients. Stewart (2021) reported a Cronbach’s alpha reliability coefficient of 0.95 and a McDonald’s omega coefficient of 0.95, while Gezer and İlhan (2021), who conducted the Turkish adaptation, found a Cronbach’s alpha reliability coefficient of 0.91. In this study, the Cronbach’s alpha coefficient yielded a reliability of 0.93 for the CCAS.

### *Data collection procedures*

The researchers obtained ethical approval from the MAUN Scientific Research and Publication Ethics Committee on October 13, 2022, for the implementation of this research, which had no conflicts of interest. Subsequently, the researchers transferred the questionnaire to the Google Forms platform. During the creation of the Google Form, the initial page of the form was designed to provide pertinent information concerning the purpose, scope, confidentiality, and voluntary nature of the research. In addition, the contact details of the researchers were prominently displayed at the beginning of the form, facilitating direct communication between participants and

researchers for any inquiries or concerns. Throughout the study, conducted by researchers not directly involved in the participants' education, meticulous attention was given to research ethics, with a steadfast commitment to prioritizing ethical considerations from the commencement to the completion of the research.

### Data analysis

The data collected through Google Forms underwent initial technical adjustments using the Excel program. Following these adjustments, the relevant data were transferred to SPSS for further analysis. Descriptive statistics, such as frequency, percentage, standard deviation, and mean, were computed as part of the analysis process. In addition, the homogeneity of the data was checked, and necessary tests were conducted to ensure the validity of the findings.

The normality of the CCAS scale scores was assessed using the Kolmogorov-Smirnov and Shapiro-Wilk tests. In the analysis, skewness and kurtosis values were examined since the relevant value was at the  $p < 0.05$  level (Skewness,  $-0.387$ ; Kurtosis,  $-1.022$ ). Values between  $+1.5$  and  $-1.5$  are generally considered sufficient for normal distribution, so parametric tests were used in the analysis (Tabachnick and Fidell, 2013). An independent-sample T-test was utilized to compare the scores obtained from the CCAS scale with the perspectives on gender, engagement in climate/environment-related activities, and the inclusion of climate/environment-related courses in the curriculum. In addition, one-way ANOVA analysis was conducted to explore the effects of other socio-demographic variables. To examine the relationship between the selected variables and the CCAS, parametric tests were preferred using a similar methodology (one-way ANOVA).

### Results

In summary (Table 1), the results of the study showed that the majority of the participants were anxious about climate change ( $\bar{X} = 3.28$ ;  $\sigma = 1.050$ ) as indicated by their scores on the CCAS scale. The results also showed that women were more anxious about climate change compared with men ( $p < 0.05$ ), while participation in an activity or study related to climate or environment was not found to have a significant impact on their anxiety levels ( $p > 0.05$ ). No statistically significant differences were found between the students' socio-demographic characteristics (age group and income level) and their anxiety levels ( $p > 0.05$ ). However, despite the small effect size, a significant difference was found between students' opinions on the adequacy of implementations in Turkey in combating climate change and the inclusion of a climate or environment-related course in the curriculum and their anxiety levels ( $p < 0.05$ ). Students who expressed a negative opinion about the adequacy of interventions in Turkey in combating climate change and its effects and who found the inclusion of a climate or environment-related course in the curriculum to be beneficial had a higher level of anxiety compared with those who expressed a positive opinion or who found it partially beneficial or not.

In Table 2, an ANOVA analysis was conducted to investigate the relationship between the scores obtained from the CCAS and the selected variables. The results showed that the homogeneity of variances was ensured for all the effects of climate change in the field of social work, as determined by the Levene test result ( $p > 0.05$ ). The ANOVA analysis revealed a significant difference between the groups in the whole of the CCAS scale, despite the small effect size, except for those who think that eco-activist initiatives are beneficial. A post hoc test was applied separately for each effect to determine the difference.

The Games-Howell statistical test results showed that in all groups where there was a significant difference: the anxiety level of the students who expressed a positive opinion was significantly

**Table 1.** The test results of the students' scores on the CCAS scale and according to some socio-demographic characteristics.

CCAS Score-Anxiety level	f	%	$\bar{X}$	$\sigma$				
01–10 score – Not anxious at all	4	0.9	3.28	1.050				
11–20 score – Not anxious	82	18.3						
21–30 score – Neither anxious nor not	82	18.3						
31–40 score – Anxious	157	35.0						
41–50 score – Very anxious	124	27.6						
Variables					T-test			
					t	P		
1. Gender								
Female	368	82.0	3.39	1.007	4.868	0.001		
Male	81	18.0	2.78	1.104				
2. Participation in an activity or study related to climate or environment								
Yes, I'm involved	66	14.7	3.46	1.023	1.504	0.133		
No, I'm not involved	383	85.3	3.25	1.054				
					ANOVA test			
					F	p	Games-Howell post hoc	$\eta^2$
3. Age								
18–19	122	27.2	3.23	0.991	0.284	0.753	–	–
20–21	198	44.1	3.28	1.092				
22+	129	28.7	3.33	1.046				
4. Monthly individual income*								
0–500 TL	75	16.7	3.16	1.079	1.403	0.247	–	–
500–999 TL	123	27.4	3.21	1.063				
1000+ TL	251	55.9	3.35	1.034				
5. Opinion on the usefulness of existence of a climate or environment-related course in the curriculum								
Yes, it is useful	255	56.8	3.43	1.010	6.415	0.002	I > 2	0.028
Partially useful	157	35.0	3.13	1.050				I > 3
No, it is not useful	37	8.2	2.92	1.178				
6. Opinion on the adequacy of interventions in Turkey in combating global climate change and its effects								
Adequate	30	6.7	2.72	1.232	5.375	0.005	I < 3	0.024
Partially adequate	190	42.3	3.25	1.021				
Inadequate	229	51.0	3.38	1.031				

CCAS: Climate Change Anxiety Scale; ANOVA: analysis of variance.

\*1 Dollar is approximately 19 Turkish Lira (TL); 1 euro is approximately 21 TL.

higher than the students who expressed partially positive and negative or partially positive opinions ( $p < 0.05$ ). This suggests that students who have a higher level of anxiety across all four of the five identified themes demonstrate a greater anxiety regarding the impacts of climate change compared with those who expressed partially positive and negative or partially positive opinions (Themes 2–5).

**Table 2.** The relationship between students' scores on the CCAS scale and selected variables.

Themes	Variables	f	%	$\bar{X}$	$\sigma$	ANOVA test		Games-Howell post hoc	$\eta^2$
						F	P		
Theme 1 Ecological justice and sustainability	1. Opinion on the idea that eco-activist initiatives are beneficial in terms of providing ecological sustainability in combating global climate change and its effects								
	Yes, it is useful	214	47.7	3.34	1.072	1.632	0.197	–	–
	It is partially useful	203	45.2	3.26	1.012				
	No, it is not useful	32	7.1	3.99	1.122				
	2. Opinion on the idea that eco-activist initiatives are beneficial in terms of achieving ecological justice in combating global climate change and its effects								
	Yes, it is useful	189	42.1	3.39	1.048	2.415	0.091	–	–
Theme 2 Provision of social support and welfare services for vulnerable groups	It is partially useful	229	51.0	3.23	1.040				
	No, it is not useful	31	6.9	2.99	1.103				
	3. Opinion on the idea that global climate change will adversely affect the process of meeting the needs of risk groups such as children, women, and the elderly, such as housing, health, and education								
	Yes, I agree	344	76.6	3.38	1.039	8.360	0.001	1 > 2 1 > 3	0.036
	I partially agree	88	19.6	3.01	1.020				
	No, I do not agree	17	3.8	2.59	0.993				
Theme 3 Gender and social inequalities	4. Opinion on the idea that global climate change will adversely affect the support programs offered to risk groups such as children, women, and the elderly								
	Yes, I agree	226	50.3	3.41	1.053	8.360	0.001	1 > 2	0.017
	I partially agree	145	32.3	3.16	1.014				
	No, I do not agree	78	17.4	3.12	1.074				
	5. Opinion on the idea that global climate change will adversely affect the welfare of risk groups such as children, women, and the elderly								
	Yes, I agree	325	72.4	3.40	1.046	7.923	0.001	1 > 2	0.034
Theme 4 Poverty	I partially agree	101	22.5	3.00	1.970				
	No, I do not agree	23	5.1	2.83	1.148				
	6. Opinion that the social assistance needs of risk groups such as children, women, and the elderly will increase significantly as a result of the economic losses to be experienced as a result of global climate change								
	Yes, I agree	349	77.7	3.36	1.033	4.980	0.007	1 > 2	0.036
	I partially agree	85	18.9	2.99	1.058				
	No, I do not agree	15	3.3	3.01	1.144				
Theme 5 Migration	7. Opinion on the idea that global climate change will trigger gender inequality								
	Yes, I agree	137	30.5	3.50	1.078	4.337	0.014	1 > 2 1 > 3	0.019
	I partially agree	183	40.8	3.20	1.053				
	No, I do not agree	129	28.7	3.17	0.989				
	8. Opinion on the idea that ecological problems to be experienced as a result of global climate change may deepen social inequalities								
	Yes, I agree	316	70.4	3.40	1.034	8.053	0.001	1 > 2 1 > 3	0.035
Theme 6 Climate Change Anxiety Scale; ANOVA: analysis of variance.	I partially agree	110	24.5	3.03	1.050				
	No, I do not agree	23	5.1	2.79	0.961				
	9. Opinion on the idea that global climate change will deepen poverty for risk groups such as children, women, and the elderly								
	Yes, I agree	346	77.1	3.35	1.037	3.598	0.028	1 > 2	0.016
	I partially agree	96	21.4	3.04	1.059				
	No, I do not agree	7	1.6	2.97	1.258				
Theme 7 Migration	10. Opinion on the idea that global climate change will trigger climate migration								
	Yes, I agree	346	77.1	3.40	1.021	10.373	0.001	1 > 2	0.044
	I partially agree	99	22.0	2.88	1.031				
	No, I do not agree	4	0.9	2.68	1.715				

CCAS: Climate Change Anxiety Scale; ANOVA: analysis of variance.

## Discussion

### *Major findings*

The results of this study have revealed that students exhibit a high level of anxiety regarding climate change. Similarly, these findings are congruous with prior research in the field (Miller and Hayward, 2014). Upon examining the gender distribution of this study, it was discovered that women were more anxious about climate change than men. There are other studies in the literature that support this finding (Johnson et al., 2004; Lopez et al., 2007). However, some studies have indicated that there may be more environmental activism among men or that there may be differences in the types of activism engaged by men and women with respect to climate change anxiety (Johnson et al., 2004; Olli et al., 2001). Hence, it can be concluded that the literature contains various opinions regarding gender-based attitudes toward the environment.

There is no difference between the students' age and income level and their level of anxiety about climate change, according to the results of this study. This suggests that these variables do not have an impact on climate-related anxiety, based on this limited sample. However, other studies have found that young people are more likely to be anxious about the environment and that age affects environmental behaviors (Johnson et al., 2004; Olli et al., 2001; Wall, 1995). In terms of income level, there is conflicting evidence. For example, McCright (2010) asserts that there exists a negative correlation between income and the degree of environmental anxiety. Conversely, Lopez et al. (2007) found a positive correlation between income level and environmental anxiety, suggesting that there is a relationship between economic well-being and environmental anxiety. This highlights the different perspectives on the relationship between environmental issues and income level/economic well-being and highlights the need for further research with a broader range of variables.

This study also found that there was no statistically significant difference in the level of anxiety about climate change between students who participated in climate-related activities or studies and those who did not. Although previous studies have found that most students engage in environmentally friendly behaviors, such as recycling, reducing consumption, and reducing their carbon footprint, similar to the results of this study, there are very few students who are involved in environmental activism or activities organized by environmental groups (Miller and Hayward, 2014). These results indicate the need for improvement in promoting environmental activism among students.

Recently, there has been a shift toward an ecological paradigm in social work, moving away from a human-centered approach (Miller et al., 2012). This shift highlights the significance of integrating environmental education into the curriculum of the social work profession, which constantly evolves (Dominelli, 2012; Hayward et al., 2012; Lucas-Darby, 2011). From this perspective, it becomes essential to update educational curricula with an ecological-based approach that places nature at its core, extending beyond a social justice-centered approach. In alignment with this notion, the findings of this study also underscore that a majority of students express a strong desire for the inclusion of a climate or environment-related course within the curriculum.

It was found that the students who had a positive opinion about the effectiveness of measures taken in Turkey to combat global climate change and its effects had lower levels of anxiety than those who had a negative opinion. This is understandable, as students who felt that adequate action was being taken would naturally have a more positive outlook. However, it was also revealed that the majority of the students believed that measures taken in Turkey to address climate change were inadequate. The 2023 Global Climate Change Performance Index, compiled by Germanwatch, ranked Turkey 47th out of 59 countries with the highest emissions, with a 'low' overall

performance rating (Germanwatch, 2022). In addition, several studies have shown that efforts to combat climate change in Turkey are insufficient (Karagöl, 2022; Şahin et al., 2019). These findings are in line with the opinions of the students in this study. As a result, it is crucial to reevaluate strategies for addressing climate change in Turkey and implement effective policies to combat this crisis.

### *The anxiety of climate change relationship with selected themes*

*Ecological justice and sustainability.* This study found that individuals who believe that climate change is also a problem of justice are more likely to be highly anxious about the issue. This highlights the sensitivity of social work students, who recognize the importance of ecological justice in their profession. However, the belief held by students that eco-activist initiatives will not make a significant contribution to ecological sustainability highlights a knowledge gap in their understanding of the environmental dimension of social work, which has recently come to the fore with an ecological paradigm (Boetto et al., 2020; Wang and Altanbulag, 2022). Indeed, there is a growing body of literature that suggests that the public and students need more education and information about climate change (Gülsoy and Korkmaz, 2020; Ochieng and Koske, 2013). Furthermore, literature provides evidence that students express a desire for increased inclusion of environmental social work topics within the curriculum, recognizing the potential benefits it holds for their educational experience (Miller and Hayward, 2014; Orr, 2004). As future social workers, students need to have the knowledge, skills, and values necessary to address environmental issues, and it is crucial to include comprehensive courses on ecological social work in the social work curriculum.

*Provision of social support and welfare services for vulnerable groups.* This study found that individuals who have a high level of anxiety about climate change believe that the basic needs of vulnerable populations, including children, women, and the elderly, will be negatively impacted by the effects of climate change. This perception is supported by a growing body of literature, which suggests that climate change has a disproportionate impact on vulnerable populations (Harvison et al., 2011; Seasons, 2021). In light of this, it is crucial to implement social protection programs to mitigate the effects of climate change on these populations. The effectiveness of social protection interventions for vulnerable groups has been frequently mentioned in the literature (Bowen et al., 2020; O'Brien et al., 2018). By providing services such as social assistance, social insurance, and labor market guidance to individuals as social protection tools, it may be possible to help reduce the deprivations of climate change such as education, health, and shelter and improve the level of welfare (Bowen et al., 2020; O'Brien et al., 2018).

*Gender and social inequalities.* In this study, the results showed that students with a high level of anxiety about climate change believe that social inequalities and gender inequalities will worsen due to climate change. There is literature to support this idea, as studies have shown that social and gender inequalities are likely to increase as a result of climate change (Babugura, 2016; Escalante and Maisonnave, 2023). It is particularly noted that women are more vulnerable to these inequalities and that they will be disproportionately affected by the impacts of climate change (Babugura, 2016; Escalante and Maisonnave, 2023). Hence, it is crucial to implement policies that aim to reduce women's vulnerability to the impacts of climate change and to develop strategies that promote gender equality in the context of climate change. This can be achieved through studies that give priority to gender equality, focus on promoting gender-based social equality in the face of

climate change, and develop adaptation programs that take these factors into account (Eastin, 2018; Wong, 2016).

**Poverty.** With this research, it has been determined that students with a high level of anxiety about climate change believe that poverty among risk groups may deepen as a result of climate change. This finding is consistent with literature that suggests that poverty may worsen due to climate change (Tol, 2018; Tonn et al., 2021). It is a known fact that poor countries will experience the impacts of climate change more severely than wealthier nations (Edvardsson Björnberg and Hansson, 2013; Quisumbing et al., 2018). When addressing poverty, it is important to keep in mind that it is a complex and dynamic issue that is shaped by a variety of social, economic, political, and environmental factors (Naudé et al., 2009; Victor et al., 2013). Thus, it is crucial to develop social work and social policy strategies aimed at mitigating poverty.

**Migration.** The study found that students with high levels of anxiety about climate change believed that migration would increase due to environmental factors. Similar to these findings, the relationship between climate change and migration is complex and influenced by many factors, and it is widely recognized that climate change can both exacerbate existing migration patterns and create new ones (Hardy et al., 2017; McLeman, 2013). These studies have shown how migration is on the rise due to climate change. There are also studies on the usefulness of integration policies in the international arena due to the increase in migration (Rigaud et al., 2018; Smirnov et al., 2023). It is important to note that a social work-oriented adaptation strategy requires a multifaceted and complex approach. A migration policy based on global governance can make a positive impact by considering the process from a variety of perspectives (e.g., development, human rights, environment, security, and public health) (Betts, 2011, 2013).

In a general assessment, the findings of this study reveal those students studying in the social work department in Turkey express anxieties about climate change and its effects. While there are studies that present views on climate change for various target groups, such as the public and social work professionals, in different countries (Funk and Kennedy, 2016; McKinnon, 2013), the results of this study should be evaluated within the context of social work students in Turkey. At this point, it is worth considering that the perception of climate change in Turkey may have played a role in obtaining these results. The generalizability of the obtained results to the international context can be established through studies conducted on diverse sample groups in different countries.

## Limitations of the study

It is important to address the limitations of the findings obtained in this study. The study addresses a restricted set of themes and variables within the domain of social work, which were determined by the researchers following a literature review and expert opinions (Themes 1–5). However, social work offers a much wider range of services and issues, so the findings of the study may be limited in their reflection of the level of anxiety about climate change in the field of social work.

## Conclusion

The study results contribute to the existing academic literature by establishing the relationship between the levels of anxiety among social work students in Turkey regarding five problem areas related to social work and their anxieties about climate change. When examined in the context of social work, the results indicate that anxieties about climate change can lead to anxiety within social work domains, thereby exerting a negative impact on social work policy and practices.

Therefore, when developing interventions and services related to climate change, the relationship with social work practice areas should be taken into account, and curriculum programs should include climate and environmental-related content in this direction. Furthermore, it is crucial to increase students' awareness of climate change and its effects and equip them with professional skills and knowledge in this field as they become social workers. In doing so, it may help reduce the potential risks posed by climatic disasters to individuals and the environment. In addition, highlighting the ecological aspect of social work as part of the celebration of World Social Work Day 2022 may be beneficial in bringing attention to this important issue on a global level.

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## Supplemental material

Supplemental material for this article is available online.

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