

Answers to reviewers

Dear Reviewers,

Thank you for all the comments. We carefully considered each of them, and the answers are included in the tables below. We mentioned line numbers to facilitate the identification of the text in the revised manuscript. **The line numbers correspond to the numbering in the revised “Clean copy” version.** The manuscript was proofread by a certified translator.

Reviewer 1

Reviewer's comment	Authors' answer
General comment: This study qualitatively examines if there are generational differences in the attitudes, beliefs, and knowledge of climate change and its relationship to health differ between Millennials and Gen Z. The authors found some differences between generations on the five dimensions that they measured: views of individual and community health; climate change knowledge; perceived health impacts of climate change; attitudes towards climate change; and behaviors related to climate change. Principally, the authors found that, across	Thank you for your comments and synthesis of the study's aim and relevance. We relied on your thoughts to better motivate the usefulness of the study.

generations, participants struggled to make connections between the climate impacts they perceive/experience and the related health impacts of those impacts. Previous research has shown that demonstrating the connection between climate change and health can be a useful way to engage people with the broader issue of climate change (e.g., Myers et al., 2012). Therefore, it is important to understand how people make these connections to their daily lives. Further, as the researchers note, generational differences in these understandings and perceptions matter—as younger generations like Millennials and Gen Z are likely to more impacted than older generations and the ones working to address the issue moving forward. Distinguishing between Millennial and Gen Z views of climate change and health can provide us with insights into where efforts are needed to educate and engage these groups with climate and health. The topic of this manuscript therefore addresses an important topic and contributes to shared knowledge by helping to open up the conversation about

While the paper addresses an important research question, there are several major places where the paper would benefit from improvement:

1. The flow of the literature review as it stands now is hard to follow. Principally, climate change is not thoroughly mentioned until later even though it is the primary topic of interest in the paper. I suggest reframing how you present the information in the literature review to discuss climate change first—tell us what the problem is and how it connects to human health—then transition into why perceptions of these impacts, beliefs, and attitudes may look different generationally and why differences between Millennials and Gen Z specifically are important to parse out and ending with how you intend to answer your EQ like you do currently. Climate change is the context within which you are examining generational differences, so discussing it first can help show your readers this.

Thank you for your recommendation. The Theoretical framework starts now with the part dedicated to “Climate change-human health nexus” (line 85)

Additionally, to highlight what the problem is, we added the following explanation:

“The current and expected economic, social, environmental, and political challenges posed by climate change are evidenced by a rich scientific literature, transforming climate change into what Butler (14) called the “most existential problem of the 21st century”. Climatic conditions influence the ecosystem’s function and quality, the quality and quantity of food production, and therefore, the critical relations between climate, society, and the food system must be acknowledged (15,16). Climate change impacts on health are influenced by economic and social conditions and other components of the natural and human systems (17).” (lines 86-93)

Next, to make the transition between the part dedicated to the nexus between climate change and health and the selection of the generations, we added: “Considered an “agent of metamorphosis” (38), climate change requires changes in human behavior and value systems (39) since human behavior

	<p>contributes substantially to climate change. Therefore, responding to climate challenges requires understanding people’s perceptions of and attitudes toward climate change risks that are at the core of social resilience that positively influence adaptive behavior (40). People with different experiences and history perceive climate change differently (41). Consequently, it was important to reveal how different age cohorts relate to climate change-health nexus.” (lines 124-130)</p>
<p>2. The discussion of differences between Millennials and Gen Z is an important distinction to make, but pointing this discussion more towards why or how they may lead to differences in climate and health knowledge/attitudes/behaviors/etc. would be much more useful in the context of the paper instead of simply listing the differences. For example, what is the relevance of note about Gen Z being under management of Millennials at work? None of the interview data points to the relevance of this statement for this study, yet it is mentioned in several places in the paper, including the abstract and lit review. The same issue arises in the discussion of climate and health in the literature review; it is more of just a list of impacts when it should likely include more about why making the climate-health connection matters for public education and engagement and how generational differences may relate</p>	<p>The differences and similarities between the two generations were framed into a more practical perspective, underlying how they can influence perceptions, attitudes and behaviors. The following explanations were added:</p> <p>“From a practical perspective, education and information campaigns that bring to the fore the interplay between climate change, environment, and human health should consider mainly Gen Z because it is a generation not fully formed (67), which allows easier modeling of perceptions and behaviors.” (lines 405-408)</p>

to these differences.

“Other research identified that younger generations perceived the seriousness of climate change more than older respondents, who were more skeptical and less concerned about climate change (90,91).” (lines 458-461)

“An effective way to make people aware of the climate change impact on their health is to reframe climate change understanding more as a health issue than an environmental one. When climate change is described as a human health issue, a larger audience finds the information useful (97), which can change perceptions and attitudes. Similarly, Myers et al. (74) found that framing climate change as a public health risk elicited emotional reactions that could support climate change mitigation and adaptation.” (lines 483-489)

“An explanation could be that respondents do not understand how they can contribute to fight climate change or the importance of individual actions within the collective effort, ..., Consequently, it is essential to inform and educate the young generations about the relevance of their climate-friendly activities.” (lines 570-577)

“The investigation of Gen Z behavior that can contribute to fight

	<p>climate change is relevant because, in the next 30 years this will be the generation that will decide upon the critical actions to be taken to solve the climate change issue (41).” (lines 579-581)</p>
<p>3. Please include information about what country participants are from, as perceptions of climate and health likely differ between countries or the drivers of the perceptions may differ (e.g., Island nations may have more palpable experiences with climate change than landlocked countries, leading their perception of the climate impacts and their relationship to climate and health may differ). This may have important implications for how you use the sources you draw on in your discussion section, as many of the studies you cite are U.S.-centric.</p>	<p>Thank you. We added the following explanations in the methodology section:</p> <p>“We interviewed 41 Romanians (20 from Millennials and 21 from Ge Z).” (line 225)</p> <p>WE introduced the subsection “Aspects of climate change in Romania” (line 249)</p> <p>Several aspects related to the phenomenon of climate change in Romania are presented in the following:</p> <p>“Climate analyses show for Romania a progressive increase in the average air temperature throughout the 21st century, in all seasons, but more pronounced in the summer and winter seasons. The warmest year recorded was 2015. For 2012-2017, the annual thermal deviations were higher than 1.5°C compared to the multi-year average in 1961-1990 (80). Almost 13.5 million hectares represent land used for agriculture (57% of the total area of Romania) (81). The agricultural areas in Romania are affected by frequent drought (around 7 million ha), temporary excess of water (about 4 million ha), water erosion and landslides (about 6.4</p>

	<p>million ha), and compaction (approximately 2.8 million ha). Drought is the main limiting factor because it affects the largest agricultural area, which will increase people's vulnerability (82).” (lines 250-259)</p>
<p>4. How was the climate anxiety measure administered? Verbally or written? Also, did you evaluate differences in scores on the total scale and on the subscales proposed by Clayton (i.e., functional impairment, etc.)? The scale was designed to be combined as a full overall measure of climate anxiety, so leaving it as differences on just the individual items undermines the usefulness of employing a validated scale.</p>	<p>The questions from Clayton and Karazsia (2020) scale were asked during the face-to-face interview.</p> <p>We did not evaluate differences between scores of the subscales proposed by Clayton and Karazsia (2020); we measured only the overall score and individual scores of items.</p> <p>Indeed, the validated scale for climate change anxiety developed by Clayton and Karazsia (2020) was designed to be used as a combined measure of the four factors (subscales) that make up it (cognitive and emotional impairment; behavioral engagement; represents personal experience of climate change; and functional impairment). Validated scales are usually used to obtain the correct measure of a certain construct (for, example, climate change anxiety) within a quantitative study. While a quantitative study is primarily concerned with objectivity, generalization, reproducibility, in a qualitative study, these are of secondary importance (Paillé, 2007). We used qualitative research, and its aim is to illustrate the significance of</p>

	<p>perceptions and knowledge that support a behavior or the results that are measured by the quantitative research. Therefore, our study did not aim to obtain a measure of climate change anxiety that was representative at group (generation) level, but rather to understand the reality of climate change from participants' perspective. For this reason, we were flexible in using the items of the climate anxiety scale.</p> <p>(Paillé, P., 2007. La recherche qualitative: une méthodologie de la proximité, in Henri Dorvil, Coord., Problèmes sociaux, vol. 3, Presses de l'Université du Québec, Québec)</p>
<p>5. In the discussion, some of the explanations of the findings are not clear, and more so just restate the findings of other papers without taking the extra steps to draw clear connections between prior work and the findings in the current manuscript. Including</p>	<p>The Discussion section was enriched (please, see the answers to Comment 2). The connections between the findings of the present research and those reported in the literature were further explored. We, thus, referred, to the works of:</p> <p>Dimock, M. (2019). Defining generations: Where Millennials end and Generation Z begins. <i>Pew Research Center</i>, 17(1), 1–7.</p> <p>Maibach, E. W., Nisbet, M., Baldwin, P., Akerlof, K., & Diao, G. (2010). Reframing climate change as a public health issue: An exploratory study of public reactions. <i>BMC Public Health</i>, 10(1), 1–11.</p> <p>McCright, A. M., & Dunlap, R. E. (2011). The politicization of</p>

	<p>climate change and polarization in the American public's views of global warming, 2001–2010. <i>The Sociological Quarterly</i>, 52(2), 155–194.</p> <p>Myers, T. A., Nisbet, M. C., Maibach, E. W., & Leiserowitz, A. A. (2012). A public health frame arouses hopeful emotions about climate change. <i>Climatic Change</i>, 113(3), 1105–1112.</p> <p>Poortinga, W., Whitmarsh, L., Steg, L., Böhm, G., & Fisher, S. (2019). Climate change perceptions and their individual-level determinants: A cross-European analysis. <i>Global Environmental Change</i>, 55, 25–35.</p> <p>Skeirytė, A., Krikštolaitis, R., & Liobikienė, G. (2022). The differences of climate change perception, responsibility and climate-friendly behavior among generations and the main determinants of youth's climate-friendly actions in the EU. <i>Journal of Environmental Management</i>, 323, 116277.</p>
<p>6. Overall, the reader is not left with a clear sense of the implications of the findings from the discussion section. What do the similarities and differences between generations tell us? How can we use those understandings to engage others? Do these generations need</p>	<p>We added several explanations in the Discussion section to offer a better understanding of the implications of the findings and highlight more the similarities and differences between the two generations:</p>

support in the climate and health space, like with addressing their anxiety about climate change? What are the implications of the differences? Do you believe they are constructive differences showing progress between generations, destructive differences that will inhibit our collective ability to address climate change, or a combination of both? Answering these types of questions will give the reader a much better understanding of why this study matters.

“From a practical perspective, education and information campaigns that bring to the fore the interplay between climate change, environment, and human health should consider mainly Gen Z because it is a generation not fully formed (67), which allows easier modeling of perceptions and behaviors.” (lines 404-407)

“A difference between generations is illustrated by the fact that only the Millennials mentioned that social factors influenced personal health. Participants defined the social factors as interactions that are useful and enjoyable. This view implies a deeper connection of Millennials with their peers compared to Gen Z, who are more self-centered about their health. The “social connections” mindset of the Millennials is visible in their definition of a healthy community, too. They indicated that a healthy community should be environmentally-friendly, regulation-complying, and respectful, all requiring cooperation between people. When defining a healthy community, Gen Z also perceived the social side of it, considering that a healthy community is communicative and respectful. The existence of these beliefs suggests that a program aiming to improve

community health and focusing on these generations should highlight the social component of a healthy community as a motivating factor. However, messages should have a distinct focus for each generation, depending on the specific aspects relevant to each of them. Thus, for example, if a program aims to stimulate healthy behavior within a community, such as the adoption of a healthier diet, engaging Gen Z in an activity that requires communication (e.g., exchanging views, writing reviews) can work better than highlighting the environmental benefits associated with the consumption of the healthy foods. The latter approach may be better received by Millennials, who could be more prone to adopt a healthy diet if, for example, the foods' lower water and carbon footprint are promoted." (lines 407-426)

"Both generations undergo what Stephen Gardiner (1) called "intergenerational buck-passing" meaning that each generation does little to fight climate change and passes the problem to the next generation, amplifying the climate crisis over time (106)." (lines 571-574)

"The fact that both generations recognize certain characteristics of

climate change within the “Knowledge around climate change” dimension proves that a knowledge foundation exists in both cases. This can be used to create and enhance environmentally friendly behaviors, such as using green energy.” (lines 439-442)

“Following this difference, we can suggest that intervention measures must be finetuned to each generation's most frequently recognized aspects. A message to Millennials should associate climate change with the change in the average annual temperature, while for Gen Z, it should highlight extreme weather conditions” (lines 444-448)

“This is consistent with other research that showed that younger generations are more concerned than older generations about climate change. The young generations will experience more of the worst impacts because they will live longer in the future (13). Climate change was indicated by American Psychological Association (100) *apud* (13) as the most significant source of stress for Gen Z than for older generations.” (lines 498-503)

“For the dimension “Attitudes towards climate change”, a similar

pattern of views is visible for both generations. Most participants stated they are concerned about climate change, but only half of them about the impact on their health. Participants' answers showed that the concern for climate change surpasses the concern for climate change impacts on health (Figure 5).” (lines 516-520)

“The relatively low concern for climate change impact on health is in line with their previous responses about the recent perceived changes in health status (Figure 3, Themes III.C and III.D).” (lines 532-534)

“While both generations mentioned a wide variety of behaviors, there are differences in their frequency within each generation (Figure 6). Recycling and reusing may be successfully proposed for both generations, but it was mentioned twice more often by Gen Z participants. In addition, Millennials may be more receptive to actions focused on lowering consumption. At the same time, the younger Gen Z may be more prone to give up (conventional) cars and selectively collect waste in efforts to fight climate change (as these were the most frequently mentioned behaviors by Millennials and Gen Z people, respectively).

	<p>Regarding stimuli and barriers to fight climate change, similar views in both generations highlight a common thinking pattern. This can be used in marketing actions to strengthen the feeling of belonging to the same community of both generations, increasing their solidarity, cooperation, and engagement in climate-friendly behaviors. Gen Z indicated a higher variety of stimuli and barriers, implying that they can be better informed or more willing to communicate what they know about climate change”</p> <p>(lines 550-563)</p>
<p>7. Consider combining the discussion and conclusion sections can be combined. They are a bit repetitive, and the paragraphs in the conclusion could be used to guide the structure of the discussion.</p>	<p>We merged the two sections, to avoid repetitions.</p>
<p>8. Other minor comments/suggestions: Double check the Millennial and Gen Z year ranges. The ones you present are overlapping and some sources indicate Millennials as 1980-1996 and Gen-Z as 1997-2012 (e.g., Dimock, 2019). Some of the figures/graphs are hard to read. Also be mindful of how the colors may look in black and white, should some readers print the article, or to those with colorblindness (blue-green may be hard to distinguish for some).</p>	<p>Thank you. We acknowledge that there is no agreed upon formula for how long that span should be: “Because of the inconsistency in the time span for each generation often reported in the literature (67–69)...” (190-191)</p> <p>We removed the green background, and we used only two colors to give the figures a simplified look and make them suitable for black and white print.</p>
<p>9. Define ambiguous terms like “motivational buttons”</p>	<p>The “motivational buttons” are the reasons that can make</p>

	<p>people to act in a desired way (e.g., economic interests, self-actualization need). However, according, to reviewer 2, the sentence was rephrased into: “The study of climate change through a generational lens is meaningful when one considers the distinct attitudes, behaviors, values, and motivations of each generation.” (lines 27-28)</p>
<p>10. In summary, the findings of this paper are interesting, but the setup for them in the literature and the discussion of them need to be strengthened to highlight their relevance and make clear to readers how the findings advance our understandings of and ability to engage people in the climate and health conversation.</p> <p>I thank the researchers for the time spent on this study.</p>	<p>Thank you for the time and the constructive comments that helped us to better illustrate the climate change-health nexus for the selected generations.</p> <p>In the Discussion section, we added explanations to capture how Millennials and Gen Z perceive each of the five investigated dimensions. We highlighted similarities and differences and suggested several practical implications. Kindly refer to the authors’ answers for comment 6.</p>
<p>11. Dimock, M. (2019). Defining generations: Where Millennials end and Generation Z begins. Pew Research Center. Retrieved October 21, 2022, from https://eur01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fwww.pewresearch.org%2Ffact-tank%2F2019%2F01%2F17%2Fwhere-millennials-end-and-generation-z-</p>	<p>Thank you for these further readings. They were included in the paper.</p>

begins%2F&data=05%7C01%7Ccrina.petrescu%40ubbcluj.ro%7Cb8af38e3f1514fe95a0008dae18e6d85%7C5a4863ed40c84fd58298fbfdb7f13095%7C0%7C0%7C638070299096175622%7CUnknown%7CTWFpbGZsb3d8eyJWlIjoIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6IjEhaWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=fzmRw9U6Kq8weu5MtW5wnsYe9bQvroYcfujfQQs15x0%3D&reserved=0

Myers, T. A., Nisbet, M. C., Maibach, E. W., & Leiserowitz, A. A. (2012). A public health frame arouses hopeful emotions about climate change. *Climatic Change*, 113(3), 1105–1112. <https://eur01.safelinks.protection.outlook.com/?url=https%3A%2F%2Fdoi.org%2F10.1007%2Fs10584-012-0513-6&data=05%7C01%7Ccrina.petrescu%40ubbcluj.ro%7Cb8af38e3f1514fe95a0008dae18e6d85%7C5a4863ed40c84fd58298fbfdb7f13095%7C0%7C0%7C638070299096175622%7CUnknown%7CTWFpbGZsb3d8eyJWlIjoIjoiMC4wLjAwMDAiLCJQIjoiV2luMzIiLCJBTiI6IjEhaWwiLCJXVCI6Mn0%3D%7C3000%7C%7C%7C&sdata=5sQYla40DOzrfSyr5xrDlkWzVBcyaVkduBcFhFW8bvI%3D&reserved=0>

Reviewer 2

Reviewer's comment	Authors' answer
<p>1. This paper presents results from a qualitative study on the perspectives of individuals representing the Millennial generation (Millennials) and Generation Z (Gen Z) on the causal link between climate change and health concerns. My main concern with this paper is that the research objective and exploratory question focuses on intergenerational similarities and differences in the climate change-health nexus citing potential conflict and communication problems in the workplace. The introduction elaborates upon this concept, and the tables (figures) provided compare the responses from the demographic cohorts on each of the “dimensions” studied. Yet the result summaries do not provide a similar comparison, which is the purpose of the study. It's not until the last paragraph in the Conclusions and recommendations section that the differences between the generations are mentioned</p>	<p>Thank you for your comments and constructive suggestions. We addressed all comments one by one. We re-written the results section to make similarities and differences across the two generations clearer and more understandable for each dimension. Kindly refer to the authors' answers for comment 34. A clearer connection between the literature review and methods section was established. Kindly refer to the authors' answers for comment 25.</p>

<p>again. The qualitative responses need to be presented in a comparative format to continue with the direction that is established at the beginning of the paper. In addition, the explanations need to be more carefully worded and edited to defend the statements being made. Last from a substantive standpoint, a clearer connection between the literature review and methods section needs to be established.</p>	
<p>2. Related to the writing, the use of adverbs such as, “thus, therefore, hence” and other leading expressions are meant to show that what is said follows logically from what was said before. Use of these words is only appropriate when they support the meaning of a prior statement or enhance an argument or point. However, there are multiple areas in the paper where these words are used improperly. Also, use of more succinct sentence structure may support overall comprehension and ease of reading. In cases where direct information is cited from the literature, use of quotation marks is necessary.</p>	<p>Thank you for your comment. Most of “thus, therefore, hence” were removed. More succinct sentences were used to support the ease of reading. The paper was revised for English style and grammar by a certified translator.</p>
<p>3. Abstract. Pg. 2, line 1. The opening</p>	<p>Thank you. We rephrased the sentence according to your suggestion: “The study of</p>

<p>statement, “Each generation has distinct attitudes, behaviors, values, and motivational buttons; and thus, the study of climate change through a generational lens becomes meaningful” makes a big assumption. Perhaps, rephrase as follows, “The study of climate change through a generational lens is meaningful when one considers the distinct attitudes, behaviors, values, and motivations of each generation.”</p>	<p>climate change through a generational lens is meaningful when one considers the distinct attitudes, behaviors, values, and motivations of each generation.” (lines 27-28)</p>
<p>4. Abstract. Pg. 2, line 2. Rephrase, “Although Millennials and Z people,” as your audience may not know what “Z people are.” Consider, “Individuals born between 1980 and 1999, referred to as the Millennial Generation (Millennials) and individuals born up to five years before or after 2000, referred to as Generation Z (Gen Z) may differ widely in their views, values, attitudes, and behaviors. This may lead to conflicts between these two cohorts.</p>	<p>We considered your suggestion, and we made the changes: “Individuals born between 1980 and 1999, referred to as the Millennial Generation (Millennials) and individuals born up to five years before or after 2000, referred to as Generation Z (Gen Z) may differ widely in their views, values, attitudes, and behaviors. This may lead to conflicts between these two cohorts.” (lines 29-32)</p>
<p>5. Abstract. Pg. 2, line 3. Rephrase the ending of the sentence “... who will encounter challenges... and replace with “may view the topic of climate change-health concern nexus very differently than</p>	<p>We rephrased the sentence according to your suggestion: “...who may view the topic of climate change-health concern nexus very differently than their Gen Z subordinates.” (lines 33-34)</p>

<p>their Gen Z subordinates. This may create challenges when considering climate change priorities and work ethic.”</p>	
<p>6. Abstract. Pg. 2, line 4. Rephrase, “Looking at people from the perspective of their generation could...” with “Considering the perspectives of each generation may..”</p>	<p>We considered your suggestion: “Considering the perspectives of each generation may offer insights on how to engage them ...” (line 35)</p>
<p>7. Abstract. Objective. Reference Millennials and Gen Z consistently throughout the paper.</p>	<p>We made the modifications throughout the text, including in Figure 4.</p>
<p>8. Abstract. Method. Italicize references to procedural tools throughout the paper; i.e., Quirkos, COREQ.</p>	<p>We italicized the procedural tools.</p>
<p>9. Abstract. Results. Rephrase, “...between the scrutinized generations” as the generations were not scrutinized. Consider, “...participants representative of each of the generations examined.” Address this in the Discussion section as well.</p>	<p>Thank you. We rephrased it, lines 46 and 397.</p>
<p>10. Abstract. Conclusion. Rephrase, “... as playing a role...” to “...as active participants in the goal to fight climate change.”</p>	<p>We considered your suggestion, lines 53-54.</p>

<p>11. Abstract. Conclusion. The last statement is weak as the paper did not stress the need to inform and educate people about the health risk associated with climate change or refer to educational and public health systems. Elaborate this point further in the paper.</p>	<p>We include the following explanation: “Thematic analysis revealed that the commonalities of views outweigh the differences between the two generations. A relevant remark is that participants can be described much more as “observers” than “players” since they do not tend to see themselves (through their behavior and their contribution) as active participants in the goal to fight climate change. Consequently, both generations undergo what Stephen Gardiner (1) called the “intergenerational buck-passing.” (lines 50-55)</p> <p>The concept of “intergenerational buck-passing” was explained in the paper (“Both generations undergo what Stephen Gardiner (1) called the “intergenerational buck-passing” meaning that each generation does little to fight climate change and passes the problem to the next generation, amplifying the climate crisis over time (106).” (lines 571-574)</p>
<p>12. Background. Pg. 4, line 56. It is unclear what is meant by “motivational buttons.” Rephrase with “motivations.”</p>	<p>Thank you. We did it.</p>
<p>13. Background. Pg. 4, line 58-60. The subject of “...how to act in a more environmentally friendly way” is unclear. Consider, “... engage them to act in an environmentally responsible way.”</p>	<p>We considered your suggestion, lines 35-36.</p>
<p>14. Background. Pg. 4, line 64. Change tense of “showed” to “has shown.” The reference to “these</p>	<p>Thank you. We modified it, lines 66-67.</p>

<p>values” is unclear. Consider, “Research shows that the values of a generation are influenced by their prior social life experiences during the historical period in which they were born and raised.”</p>	
<p>15. Background. Pg.4, line 66. What is the “intergroup dimension?” What is “an intergenerational reading?”</p>	<p>a) “What is the “intergroup dimension?”</p> <p>The concepts of “intergroup” and “ingroup” often appear when examining issues of social identity based on individual differences (social identity theory). Intergroup behavior may refer to differences and similarities between groups regarding how people perceive, think, feel about and act towards climate change (in our case) and relate to people in other groups. One question may arise: “How one can categorize people as belonging to a specific group behavior?”. One answer refers to common specific goals that people or groups want to achieve (e.g., adaptation to climate change) – goals that can be achieved only by intergroup cooperation interaction (superordinate goals). Intergroup behavior can span international, interethnic, etc.</p> <p>Although climate change is a global problem that affects all species and all people, the ability to recover from the impact of climate change is not distributed equally across species, geographic location, economic sector and time (Swim and Bloodhart ; Field et al., 2014). Further, within social groups, those most vulnerable to climate change are defined by various features including, e.g., age, race, economic status, gender, mental or physical disabilities, indigenous and minority status (Clayton et al., 2017; Nagel, 2012). Thus, the application of intergroup relations research to climate change and its</p>

associated injustices is of high interest.

We added the following explanation in the manuscript: “Intergroup behavior may refer to differences and similarities between groups (e.g., generations, vulnerable groups like ethnic, women, and religious groups) regarding how people perceive, think, feel about and act towards (in our case) climate change and relate to people in other groups (6).” (lines 70-73)

b) “What is “an intergenerational reading?”

In social science, it is common to use the word “reading” as synonym to “understanding”, “interpreting”. Merriam-Webster dictionary (<https://www.merriam-webster.com/dictionary/read>): “(2) UNDERSTAND, COMPREHEND, ... a) to interpret the meaning or significance of”.

For the present study, “reading” refers to how two generations, Millennials and Gen Z, understand the relationship between climate change and health. We used the word “intergenerational” because is about people belonging to two different generations (while “intrageneration” refers to people belonging to the same generation”). The terms “intergeneration” and “intrageneration” are generally used in sociological and economic discussions.

Here are several examples of studies that used the word “reading” with the meaning of “understanding”: Holloway, L., & Kneafsey, M. (2000). Reading the space of the farmers' market: a preliminary investigation from the UK. *Sociologia ruralis*, 40(3),

	<p>285-299; Dourgnon, P., & Naiditch, M. (2010). The preferred doctor scheme: a political reading of a French experiment of gate-keeping. <i>Health Policy</i>, 94(2), 129-134; De Angelis, M. (1995). Beyond the technological and the social paradigms: A political reading of abstract labour as the substance of value. <i>Capital & Class</i>, 19(3), 107-134.</p>
<p>16. Research objective. Pg.4, line 71. Remove “still,” as the time frame is not specified. Change the tense of “focusing” to “focused.” Are the “similarities and differences in climate change issues” or in “perspective” on climate change issues?</p>	<p>We made the suggested changes. It is about “perspectives”. The text was modified as follows: “While scientific literature has mainly looked at generational differences in a variety of work and vocational contexts [e.g., 6–8], there is little research focused on generations’ perspectives of similarities and differences in climate change issues (5,10–13).” (lines 75-77)</p>
<p>17. Research objective. Pg.4, line 73. What is an “intergenerational reading?”</p>	<p>In social science, it is common to use the word “reading” as synonym to “understanding”, “interpreting”. Marriam-Webster dictionary (https://www.merriam-webster.com/dictionary/read): “(2) UNDERSTAND, COMPREHEND, ... a) to interpret the meaning or significance of”.</p> <p>For the present study, “reading” refers how two generations, Millennials and Gen Z, understand the relationship between climate change and health. We used the word “intergenerational” because it refers to people belonging to two different generations (while “intrageneration” refers to people belonging to the same generation”). The terms “intergeneration” and “intrageneration” are generally used in sociological and economic discussions.</p> <p>Here are several examples of studies that used the word “reading” with the meaning of</p>

	<p>“understanding”: Holloway, L., & Kneafsey, M. (2000). Reading the space of the farmers' market: a preliminary investigation from the UK. <i>Sociologia ruralis</i>, 40(3), 285-299; Dourgnon, P., & Naiditch, M. (2010). The preferred doctor scheme: a political reading of a French experiment of gate-keeping. <i>Health Policy</i>, 94(2), 129-134; De Angelis, M. (1995). Beyond the technological and the social paradigms: A political reading of abstract labour as the substance of value. <i>Capital & Class</i>, 19(3), 107-134.</p>
<p>18. Research objective. Pg. 5, line 78. Define “climate change-health nexus”</p>	<p>It refers to the connections that exist between climate change and health. There are direct and indirect ways climate change affects health. The United Nations Framework Convention on Climate Change Synthesis Paper report concluded that climate change affects health through three pathways: directly through weather variables (such as heat and storms); indirectly through natural systems such as disease vectors; and through pathways heavily mediated by human systems such as under nutrition. That is why, an intersectoral thinking and action is needed. We underlined these aspects by adding the following explanation: “Climatic conditions influence the ecosystem’s function and quality, the quality and quantity of food production, and therefore, the critical relations between climate, society, and the food system must be acknowledged (15,16). Climate change impacts on health are influenced by economic and social conditions and other components of the natural and human systems (17).” (lines 88-93)</p>
<p>19. Theoretical framework. Pg.5, line 82.</p>	<p>We replaced “they” with “individuals in this group”, line 151.</p>

Rephrase, “they” with “individuals in this group.”	
20. Theoretical framework, Pg. 5, line 98. Replace, “voiced for firm public action” with “have been promoting”	Thank you. We modified it, line 166 .
21. Theoretical framework, Pg. 6, line 2. Following “pandemic” add “further illuminated the value of technology across all age groups.” Continue with “We learned that being digitally connected.. could.”	We rephrased the sentence: “ ... the Covid-19 pandemic further illuminated the value of technology across all age groups. We learned that being digitally connected could offer solutions to everyday people’s needs and habits (61).” (lines 169-171)
22. Theoretical framework, Pg. 6, line 114. When will Gen Z surpass Millennials? Provide a year. Move the voting-age sentence in this section since it adds content to the surpass concern.	We added “by 2030”: “Gen Z will surpass the Millennials (by 2030), with more than one-third of the population identifying as Gen Z (65).” (line 181-182) ; The part related to “voting-age” comes after the above modified sentence.
23. Theoretical framework, Pg. 6, line 10. Spell out EU or use an acronym appropriately by stating the full phrase the first time followed by the acronym.	Thank you. We included the acronym when European Union appears for the first time.
24. Climate change-human health nexus, Pg. 8, line 166. Replace “that are valued” with “who are valued.”	We corrected it, lines 140-141 .
25. Overall from Literature Review to	We restated the main objective of the study and added some explanations to illustrate

<p>Methodology. Need to re-state the research purpose and/or research questions at the end of the literature review, and then need to make sure you make the case for this study. Some additional phrases or sentences would help to explain how this study is specifically advancing the literature.</p>	<p>how this research contributes to climate change literature:</p> <p>“To sum up, the concept of “generation” has been central in analyzing and communicating human-induced climate change (73). As long as climate change is mainly depicted as an intergenerational conflict, effective responses to climate change are closely related to the knowledge of differences and similarities between generations. While most of the research emphasizes differences between younger and older generations, the present study advances the climate change literature by focusing on two young generations, Millennials and Gen Z, because teenagers and young adults are the ones whose lives will be more affected by climate change (74). The connection between climate change and health can be a valuable way to engage people with the broader issue of climate change (75). Therefore, it is important to understand how people make these connections to their daily lives. Generational differences in these understandings and perceptions matter—as younger generations like Millennials and Gen Z will probably be more impacted than older generations. Distinguishing between the views of Millennials and Gen Z on climate change and health can provide us with information on where efforts are needed to educate and engage these groups with climate and health. The study offers an intergenerational understanding of similarities and differences in the climate change-health nexus that can reflect potential conflicts and critical points where intervention is needed.” (lines 194-210)</p>
<p>26. Methodology, Pg. 9, line 177. “From the perspective of those experiencing it” Aren’t we all</p>	<p>Yes, we are all experiencing climate change. We rephrased: “The authors opted for a qualitative research design to understand the nature of climate change-health nexus from</p>

experiencing climate change? Please explain?	the perspective of two generations.” (lines 213-216)
27. Methodology. Pg. 9, line 184. Why is “section iii)” included here?	We changed into: “For climate change anxiety scale, a 5-point Likert scale was used (1 = never, ..., 5 = very often)” (lines 345-346)
28. Methodology. Pg. 9, line 191. Use “meaning” instead of “i.e.” in the sentence	We replaced “i.e” with “meaning”
29. Methodology, Pg. 10, line 2. Change “Participants were explained” to “Participants were instructed on.”	We modified it, lines 235-236.
30. Methodology. Pg. 10. Was this study IRB-approved? Make sure to state it as such.	We uploaded the Research ethical approval no. 10521/19.08.2022 from our university in the submission system.
31. Results, Pg. 10, line 213. Replace “Other 7 persons....” with something like “Seven individuals were unable to participate due to time constraints.”	We rephrased the sentence as follows: “Other seven individuals were unable to participate due to time constraints (four from Millennials and three from Gen Z).” (lines 262-263)
32. Results. Pg. 11, line 226. Why are spirituality/religion compared to the environmental aspects in the next sentence? This seems like an odd comparison.	We removed the mentioned aspects and added the following: “In the present study, exercise, food and diet, and mental health were the most frequently mentioned drivers of personal health. Around 60% of Millennials and between 35% and 60% of Gen Z participants considered that these aspects made an individual healthy (Figure 1).” (lines 273-276)
33. Results, Pg. 12, Figures. The figures are somewhat difficult to read, particularly with all the abbreviations. Consider simplifying these figures in	We removed the green background, and we used only two colors to give the figures a simplified look and make them suitable for black and white print.

<p>some way.</p>	
<p>34. Results overall. The results section needs to be re-written in such a way that similarities and differences across the two generations are more clear & better understood across the key areas for the study.</p>	<p>We re-written the results section to make similarities and differences across the two generations clearer and more understandable for each dimension:</p> <p>“In the present study, exercise, food and diet, and mental health were the most frequently mentioned drivers of personal health. Around 60% of Millennials and between 35% and 60% of Gen Z participants considered that these aspects made an individual healthy (Figure 1).” (lines 273-276)</p> <p>“A difference between the selected generations regards the role of social aspects in the maintenance and restoration of personal health, which were mentioned only by the Millennials (25% of them), while Gen Z completely ignored them.” (lines 279-280)</p> <p>“Other views about what makes a community healthy that were present to a different degree in each generation were health services (mentioned by none of Millennials and 29% of Gen Z) and communicative community (indicated by 25% of Millennials and 0.5% of Gen Z). The answers where the number of participants was similar in each generation were, for example, about being a sporty community (10% of Millennials and 14% of Gen Z) and regulation-complying community (15% of Millennials and 10% of Gen Z).” (lines 292-298)</p> <p>“Most views expressed within this dimension can be found in both generations, but with a</p>

different frequency.” (lines 299-300)

“Comparatively, only 33% (n=7) of Gen Z shared this view.” (line 305)

“One representant of each generation associated climate change with different types of pollution (Figure 2).” (lines 312-313)

“However, the spread of this perception in each generation is different. Thus, 75% (n=15) of Millennials and 100% (n=21) of Z people voiced that they observed differences in last summer temperature compared to five years ago (Figure 3).” (lines 320-322)

“Both generations shared similar perceptions regarding their health status in the last summer compared to five years ago, with most participants from each generation signaling no change (90% of Millennials and 81% of Gen Z). A small difference appeared in their view about health status in the last winter compared to five years ago, with 85% (n=17) of Millennials indicating no changes and all Gen Z participants mentioning no changes.” (lines 327-332)

“The views of both generations were similar within this dimension for both themes (Figure 5). Comparing the themes, a larger number of Millennials and Gen Z stated that they were more concerned about climate change than those worried about climate

	<p>change’s impact on their health (Figure 5).” (lines 347-350)</p> <p>“This is a common opinion of both Millennials and Gen Z participants: <i>“I recycle and use reusable products to reduce waste” (21Z)</i>. However, differences in how common this view is within generations should be highlighted: around half of Millennials compared to Gen Z (45% of Millennials vs. 81% of Gen Z). Another difference is observed for giving up (conventional) cars (5% of Millennials vs. 43% of Gen Z) and consuming less (40% of Millennials vs. 0.5% of Gen Z).” (lines 363-368)</p> <p>“However, both generations acknowledged peoples’ behavior and attitude as barriers to acting against climate change. They often mentioned the “indifference of other people” as a barrier: <i>“The barriers are primarily the laziness and indifference of individuals” (3Z)</i>. A difference between generations regarding perceived barriers is that Gen Z mentioned a wider variety of obstacles than Millennials.” (lines 381-386)</p>
<p>35. Discussion. Pg. 18, lines 318-320. Explain what you mean by people confusing climate with climate change with an example.</p>	<p>To better understand the differences, we included “climate variability” instead of “climate”, and we added the following example in the manuscript: “for example, one unusually cold year followed by an unusually warm year are not signs of climate change.” (lines 435-436)</p> <p>Further explanations: Climate variability refers to variations in the climate that last</p>

longer than individual weather events. Climate change only refers to those variations that persist for a longer period of time (tens, hundreds, and thousands of years).

Similarly, Weber (84) warns that climate change is not easily detected by personal experience. Climate is a statistical phenomenon, a term that describes average weather conditions or their typical range for a region. Although a region's climate is always changing, the changes do not usually occur on a time scale that is immediately obvious to us. We can observe how weather changes from day to day, but subtle climate changes are not as readily detectable. Climate change in the meteorological sense refers to systematic (yet usually gradual) changes in average conditions, i.e., to reliable trends embedded in the random fluctuations of conditions that can be expected for both stable and changing climates. It is a truth that Earth's climate is always changing, but to discuss about climate changes, the changes should take place on the scale of tens, hundreds, and thousands of years. The climate of a region/city is its weather averaged over many years. This is usually different for different seasons.

For example, a colder winter is a relatively small atmospheric perturbation within a much larger, long-term trend of warming.

For the Russian heatwave in 2010, despite its severity, scientists did not find a role for climate change (other examples are available at: <https://www.carbonbrief.org/mapped-how-climate-change-affects-extreme-weather-around-the-world/>).

Due to localized impacts and visible impacts, extreme weather events were used as a communication tool because extreme weather could act as a wake-up call to climate

	<p>change that makes risks more visible and concrete, stimulating support for climate change actions (Ettinger, J., Walton, P., Painter, J., Osaka, S., & Otto, F. E. (2021). “What’s Up with the Weather?” Public Engagement with Extreme Event Attribution in the United Kingdom. <i>Weather, Climate, and Society</i>, 13(2), 341-352.).</p>
<p>36. Discussion, Pg. 19, line 340. Change “believe” to “believed” and add a comma after “impacts”. Consider breaking up this long run-on sentence.</p>	<p>The sentences read now as follows: “Akerlof et al. (93) believed that there was little research on public perception of the human health impacts and risks associated with climate change. The need to become more aware of the connections between climate change and health is justified by the scientific evidence (94) that has shown that the impact of climate change has immediate and long-term indirect effects on public health.” (lines 472-476)</p>
<p>37. Discussion, Pg. 19, line 343-345. Change “warmer climate could affect mainly those suffering” to “warmer climate may mostly affect those suffering..” and change “colder climate could increase in coughs/” to “colder climate may cause an increase in the prevalence of coughs..”.</p>	<p>Thank you. We made the two changes, lines 477, 478</p>
<p>38. Discussion, Pg. 20, first paragraph. Unclear meaning “pro-active (proactive) behaviors”.</p>	<p>“Proactive behaviors” refer to engage in self-initiated efforts to reduce the harmful effects of climate change. We added several solutions offered by the participants</p>

<p>“Therefore what...” This paragraph needs to be clarified.</p>	<p>“(e.g., forest protection, less use of plastic products, recycling and reusing behaviors).”</p> <p>We rephrased the sentences: “Based on findings reported in climate change anxiety literature, climate change anxiety does not necessarily predict greater uptake of self-initiated efforts to reduce the harmful effects of climate change (77,102) because anxiety may draw out avoidant thinking and behaviors (102). Despite participants’ low climate change anxiety, they offered rich and documented solutions of how they fight climate change (e.g., forest protection, less use of plastic products, recycling and reusing behaviors, which are illustrated in the fifth dimension “v) Behaviors related to climate change”).” (lines 509-515)</p>
<p>39. Discussion. Pg. 20, line 364. What rich and documented solutions to fight climate change were offered?</p>	<p>We added: “(e.g., forest protection, less use of plastic products, recycling and reusing behaviors, which are illustrated in dimension v) Behaviors related to climate change) ”.</p>
<p>40. Discussion, Pg. 20, line 365. “From the views...” What views?</p>	<p>We replaced “views” with “participants’ answers”</p>
<p>41. Discussion, Pg. 20, line 378. Change “participants with a declared good health status” to “participants self-reported good health status..”.</p>	<p>We changed it, line 528.</p>
<p>42. Discussion, Pg. 21, line 397. Change “adopted qualitative research” to “conducted qualitative research.”</p>	<p>We modified it, line 586.</p>
<p>43. Discussion, Pg. 21, line 406. What is meant</p>	<p>Maladaptation refers to actions intended to reduce the impacts of climate change that</p>

<p>by “maladaptation?”</p>	<p>actually create more risk and vulnerability (here are some papers that discuss cases of climate change maladaptation: Magnan, A. K., Schipper, E. L. F., Burkett, M., Bharwani, S., Burton, I., Eriksen, S., ... & Ziervogel, G. (2016). Addressing the risk of maladaptation to climate change. <i>Wiley Interdisciplinary Reviews: Climate Change</i>, 7(5), 646-665; Schipper, E. L. F. (2022). Catching maladaptation before it happens. <i>Nature Climate Change</i>, 12(7), 617-618; Juhola, S., Glaas, E., Linnér, B. O., & Neset, T. S. (2016). Redefining maladaptation. <i>Environmental Science & Policy</i>, 55, 135-140.)</p>
<p>44. Discussion overall. The Discussion is a strength of the manuscript. However, the authors need to make sure the Results section leads to and corresponds with the Discussion section.</p>	<p>We added several explanations in the Discussion section to offer a better understanding of the implications of the findings and highlight more the similarities and differences between the two generations:</p> <p>“From a practical perspective, education and information campaigns that bring to the fore the interplay between climate change, environment, and human health should consider mainly Gen Z because it is a generation not fully formed (67), which allows easier modeling of perceptions and behaviors.” (lines 404-407)</p> <p>“A difference between generations is illustrated by the fact that only the Millennials mentioned that social factors influenced personal health. Participants defined the social factors as interactions that are useful and enjoyable. This view implies a deeper connection of Millennials with their peers compared to Gen Z, who are more self-centered about their health. The “social connections” mindset of the Millennials is visible in their</p>

definition of a healthy community, too. They indicated that a healthy community should be environmentally-friendly, regulation-complying, and respectful, all requiring cooperation between people. When defining a healthy community, Gen Z also perceived the social side of it, considering that a healthy community is communicative and respectful. The existence of these beliefs suggests that a program aiming to improve community health and focusing on these generations should highlight the social component of a healthy community as a motivating factor. However, messages should have a distinct focus for each generation, depending on the specific aspects relevant to each of them. Thus, for example, if a program aims to stimulate healthy behavior within a community, such as the adoption of a healthier diet, engaging Gen Z in an activity that requires communication (e.g., exchanging views, writing reviews) can work better than highlighting the environmental benefits associated with the consumption of the healthy foods. The latter approach may be better received by Millennials, who could be more prone to adopt a healthy diet if, for example, the foods' lower water and carbon footprint are promoted.” (lines 407-426)

“Both generations undergo what Stephen Gardiner (1) called “intergenerational buck-passing” meaning that each generation does little to fight climate change and passes the problem to the next generation, amplifying the climate crisis over time (106).” (lines 571-574)

“The fact that both generations recognize certain characteristics of climate change within the “Knowledge around climate change” dimension proves that a knowledge foundation exists in both cases. This can be used to create and enhance environmentally friendly behaviors, such as using green energy.” (lines 439-442)

“Following this difference, we can suggest that intervention measures must be finetuned to each generation's most frequently recognized aspects. A message to Millennials should associate climate change with the change in the average annual temperature, while for Gen Z, it should highlight extreme weather conditions” (lines 444-448)

“This is consistent with other research that showed that younger generations are more concerned than older generations about climate change. The young generations will experience more of the worst impacts because they will live longer in the future (13). Climate change was indicated by American Psychological Association (100) *apud* (13) as the most significant source of stress for Gen Z than for older generations.” (lines 498-503)

“For the dimension “Attitudes towards climate change”, a similar pattern of views is visible for both generations. Most participants stated they are concerned about climate change, but only half of them about the impact on their health. Participants’ answers showed that the concern for climate change surpasses the concern for climate change

impacts on health (Figure 5).” (lines 516-520)

“The relatively low concern for climate change impact on health is in line with their previous responses about the recent perceived changes in health status (Figure 3, Themes III.C and III.D).” (lines 532-534)

“While both generations mentioned a wide variety of behaviors, there are differences in their frequency within each generation (Figure 6). Recycling and reusing may be successfully proposed for both generations, but it was mentioned twice more often by Gen Z participants. In addition, Millennials may be more receptive to actions focused on lowering consumption. At the same time, the younger Gen Z may be more prone to give up (conventional) cars and selectively collect waste in efforts to fight climate change (as these were the most frequently mentioned behaviors by Millennials and Gen Z people, respectively).

Regarding stimuli and barriers to fight climate change, similar views in both generations highlight a common thinking pattern. This can be used in marketing actions to strengthen the feeling of belonging to the same community of both generations, increasing their solidarity, cooperation, and engagement in climate-friendly behaviors. Gen Z indicated a higher variety of stimuli and barriers, implying that they can be better informed or more willing to communicate what they know about climate change”

(lines 550-563)