**A Systematic Review of Aging and Climate Change**

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In this systematic review, we analyze the literature through Web of Science’s SCI-Expanded and SSCI containing the words “aging” or “aged” and “climate change” and receiving at least four citations per year since publication (n = 481 articles). After discarding irrelevant articles (ie, “aging infrastructure”), the 139 remaining articles overwhelmingly (86%) fall into two categories: temperature/mortality (n=97; 69%) and temperature/morbidity (n = 23; 17%). However, many other important climate topics related to aging remain underdeveloped. Notably, adaptation (n = 8; 6%), vulnerability (n = 5; 4%), emissions/mitigation (n = 4; 3%), drought and mortality (n = 1; 0.7%), food security (n = 1; 0.7%), and climate perceptions (n = 0) remain understudied. Furthermore, more than half of the studies were conducted in the United States (n = 30), China (n = 23), Globally (n = 16), and Australia (n = 9), suggesting a paucity of information in the Global South (n = 11) where climate impacts will be greatest. There were more studies specifically on Spain (n = 5) than specifically on the entire African continent (n = 4). Finally, 18 articles (13%) offered projections in some form, most to the middle of the century. Gerontologists and aging scientists should look beyond the relationship between heat and mortality to offer a more holistic view of aging and climate change. [Sentence about Geography]. Prospective analyses, as opposed to retrospective, could shed additional light on the link between aging and climate change.

**Introduction**

Para: General Introduction to Climate Change and Aging

Para: Focuses on Climate Change

Para: Focuses on Aging processes

Para: Gap bringing together (Climate Change and Aging)

Para: Research Questions with brief methods

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**Methods and Materials**

We use a systematic literature review to assess the literature on climate change and aging.

**Document Selection**

We used a keyword search on Clarviate’s Web of Science-expanded search engine using the Boolean operator “TS=(aging OR aged OR elderly) AND TS=(“climate change”).” We selected Web of Science due to its comprehensive scientific coverage of peer-reviewed literature. We conducted the search on September 7, 2022. This search retrieved an initial universe of 16,828 articles. We filtered these results to include articles of relatively high impact, defined subjectively as those articles with at least four citations per year (n = 3,852). To further isolate those articles pertaining to aging and climate change, we further restricted our search to those articles containing the words (aging or aged or elderly) in the abstract (n = 607).

We then reviewed these articles for relevance, discarding articles concerning “aging infrastructure” or “aging forests” to isolate articles on human aging and climate change.

**Document review**

Following our document selection and screening, XXX articles were retained for full review. We developed a questionnaire to survey these articles to document and characterize the primary topics of climate change. We developed this questionnaire to standardize the analysis, produce descriptive statistics, and examine trends. We coded all papers based on (1) the primary and (2) secondary climate effect studied, (3) the climate impact type (sensitivity, vulnerability, or exposure), (4) the climate impact studied (morbidity, mortality, etc.), if the article concerned (5) mitigation, (6) adaptation, (7) or perceptions, if the article included a projection (8), the historic time period (9), and the general area the study was conducted (10). Additionally, we gathered general information on authorship, publication year, and citation counts. We conducted an extensive full-text review of all (n = XXX) articles using this questionnaire. We assessed the primary finding in articles where multiple climate impact types or climate impacts were studied.

**Analysis**

All (n = 16,828) articles were retained for validation. All data were entered into an Excel spreadsheet. We used R to analyze the data and to produce descriptive statistics and visualizations.

**Data Availability**

The underlying computer code and data that support the findings of this study are available in the Supplementary Material.

**Results**

[Topics]

Table: Key Points (Matt)

500 words on Key Points Table

Figure: Bar Chart of Topics (Kyle)

Figure: Timeline of papers and citations

750 words on Bar Chart

Figure: Social Network (Kyle)

500 words on Social Network Figure

[Geography]

Figure: Map of the Literature (Matt)

500 words on the Map

**Discussion**

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**References**