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Review Article

Mapping Spatial Family Research: A Semi-Automated Computational Review

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Abstract: Family structures have undergone significant transformations, evolving from traditional nuclear models to more diverse and fragmented forms. While these shifts – driven by demographic changes, technological advancements, and evolving social norms – are fundamentally anchored in space, a "Geography of Family" remains methodologically dispersed and on the margins of mainstream research. This study employs a semi-automated computational mapping review, utilising ASReview and VOSviewer, to categorise how space is currently operationalised in explicitly spatial family-oriented research. The analysis identifies three primary conceptual clusters: space as a static context for social ties, space as a dynamic process of mobility, and space as a structural determinant of distance friction. Crucially, the review revealed that while micro-level family dynamics and macro-level structural conditions are well-documented, they are rarely simultaneously integrated into the same analytical models alongside active spatial metrics. Based on the mapped evidence, the study proposes a functional "triadic model" anchored in time, recommending a framework that systematically integrates micro-level ties, macro-level structures, and spatial dynamics. This approach enables the discipline to move beyond descriptive regional mappings towards robust causal explanations, advocating for the broader adoption of spatial tools such as Geographic Information Systems (GIS) to better understand kinship networks and intergenerational resilience in a changing world.

Keywords: family sociology; intergenerational proximity; kinship networks; GIS; computational literature review

Highlights:

- Analysis identifies three clusters: Space as Context, Process, and Structure.
- Fragmented infrastructures and methodological nationalism constrain the field.
- Integrating spatial analysis tools can unlock causal explanations for family change.

1. Introduction

Marriage was widely seen as a lifelong commitment throughout much of the 20th century, particularly in its early years, and the "traditional" family, consisting of a husband, wife, and children – the nuclear model – was commonly regarded with the standard family form in Western society (Laslett, 1977; Coontz, 2004). However, the nuclear model is only one of many kinship systems. For instance, extended families and multi-generational households have long been the norm and continue to play a vital role in many cultures (Therborn, 2004). With changing societal norms and values, the definition of family has evolved to encompass various models, including single-parent households, same-sex couples, and blended families (Bengtson, 2001). Fathers as financial providers (breadwinners) for the family and mothers as primary caregivers are no longer as clearly defined or stereotyped as they once were. Although family structures and roles naturally change over time, advancements in information and communication technologies (facilitating long-distance kinship maintenance), demographic shifts, and the liberalisation of social norms, including the increasing emancipation of women and their evolving roles in the labour market, have contributed to this process in recent decades

(Abel et al., 2021; Oláh et al., 2021; Smock & Schwartz, 2020). Because these shifts occur at different rates across regions, the global distribution of family change is uneven (Abalos & Yeung, 2023). This spatial diversity indicates that family change is not only temporal but also geographical. The interaction between local institutional frameworks, cultural legacies and global trends is therefore relevant to understanding family change. The uneven pace of change consequently makes geography, and specifically spatial analysis, an essential tool for identifying how location-specific factors can accelerate or hinder family transitions. Based on these premises, this article maps how spatial perspectives are incorporated into a defined body of family-oriented research. It characterises how geography and space are operationalised within contemporary studies, whether as an active analytical variable or as a passive context.

Existing spatially oriented studies of family dynamics remain dispersed across disciplines, leaving the conceptual landscape of this intersection only partially mapped. This study therefore aims to systematically map and characterise the scholarly literature focusing on the practical connection of geographical and sociological or anthropological family research, specifically examining how spatio-temporal dynamics of individual family histories are integrated into contemporary studies and, on this basis, to propose a shared analytical framework.

To navigate this interdisciplinary landscape, the primary research question is formulated as follows: How is "space" operationalised in current geographically aware family-oriented research (e.g., as a passive variable, a barrier, or an active constitutive element)? Are there any prevalent topics or gaps in the literature? To what extent does the current literature form a coherent "Geography of Family"? The following predefined sub-objectives were established to address these research questions:

- To identify dominant trends and gaps in the literature on the integration of family histories and space.
- To identify methodological practices that could be further developed or applied in future studies on similar issues.

This study employs a semi-automated computational mapping review, supported by ASReview (ASReview LAB developers, 2025) for screening and VOSviewer (Van Eck & Waltman, 2010) for bibliometric visualisation. The review focuses on peer-reviewed articles, books and book chapters published within the last decade (2014–2024). This timeframe allows for the inclusion of contemporary research while acknowledging the foundational works that have shaped the field in previous years. The search strategy employs a combination of keywords that bridge spatially oriented and socio-anthropologically oriented concepts, drawing on data from a high-impact interdisciplinary index. It is designed to capture a core body of relevant spatially oriented family research.

2. Literature Review

Families are a complex part of society, often seen as fundamental building blocks. They serve as the primary social network where key social interactions occur, significantly influencing individual behaviour and attitudes. Within the family, initial socialisation occurs, shaping the customs, values, and attitudes that individuals carry throughout their lives (Alvarez et al., 2017; Campbell, 2000).

Geography plays a key role in shaping family forms and relationships across societies by situating families within specific historical, cultural, and socio-spatial contexts. Regionally embedded cultural norms, social structures, and material conditions shape how family systems are organised and experienced (Yang & McDonnell, 2024). Diverse family systems have evolved globally, each reflecting specific spatial conditions. These family systems establish norms governing interpersonal relationships, residential arrangements, and role expectations, while also functioning as primary contexts for socialisation and intergenerational value transmission (Schönpflug, 2001; Yang & McDonnell, 2024).

Thus, the family system contributes to the reproduction of culturally specific ways of life. It plays an important role in shaping individual behaviour related to spatial factors, including migration tendencies, preferences for spatial arrangements or models of postmarital cohabitation. This may create tension between global and local developments and generate glocal outcomes, often requiring context-specific spatial analysis to understand these localised manifestations of global trends (Mönkediek et al., 2017).

As social institutions, families have long been perceived as stable, yet they continuously adapt to changing circumstances (Fingerman et al., 2020). Today, families are experiencing rapid transformations under the influence of three interconnected trends: (1) the rise of individualism driven by globalisation, (2) demographic transitions leading to family verticalisation, and (3) spatial fragmentation due to urbanisation. These trends highlight the need to examine spatial dynamics in family studies in order to understand how global and local forces reconfigure family relationships and spatial patterns (Madhavan et al., 2014).

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2.1. Evolving Family Structures in a Changing World

1. Globalisation acts as a significant driving force not only in economic and political spheres but also at the level of family life. This period of rapid societal change is associated with a *rise in individualism* – initially in high-income countries and, more recently, in low- and middle-income countries – though these changes unfold unevenly and do not produce uniform family forms across contexts (Pesando et al., 2019). This shift is evident in changes to traditional family structures and perceptions of family, including rising divorce rates, increasing numbers of couples living together without marriage, and more children being born outside marriage. As a result, new living arrangements are emerging, including households with unmarried couples, single-person households, and single-mother households (Yeung & Cheung, 2015). Such arrangements are associated with a shift towards smaller households, which changes the use of residential space. Although family dynamics may be viewed as a slow evolutionary process, these spatial reconfigurations are immediate, tangible, and actively reshaping day-to-day family life (Abalos & Yeung, 2023; Mikolai et al., 2020).
2. Alongside the rise of individualism, families are experiencing significant changes due to *demographic shifts*. For instance, women are having their first child at an older age, birth rates are declining, and life expectancy is increasing. Early work by Hagestad (1986) describes families as becoming longer and thinner due to declining fertility and increasing longevity – a pattern later described as the verticalisation of family structures or "pyramids becoming beanpoles" (Bengtson, 2001). This alters interactions within and across generations and may disrupt traditional family norms. One of the emerging challenges within these verticalised family structures is the care of elderly members, which can create tension and is influenced by cultural, economic, and policy factors. Crucially, in a spatial context, this shifts the family system's vulnerability. As families become verticalised, the number of local relatives decreases, and the importance of distance in family life increases. This becomes an important determinant of family support and shapes the degree of intergenerational resilience (Vergauwen & Mortelmans, 2020).
3. Finally, *changes in settlement structures and urbanisation* have profoundly influenced family life. The development of modern technologies and communication tools, which facilitate the maintenance of family ties and serve as a means of (not only) social support, undoubtedly affects the functioning of the family (Baldassar et al., 2016). However, migration and urbanisation also play significant roles. Contemporary cities frequently attract economically motivated migrants, a trend supported by research indicating that individuals often move to areas with better job opportunities and higher wages, thereby contributing to urbanisation and altering household composition (Dykstra, 1995). At the same time, as highlighted by Miceli & Bilecen (2025) and Mulder (2018), these decisions often reflect a complex interplay of family considerations, underscoring the nuanced balance between individual- and family-oriented priorities.

As a result, these factors can lead to spatial fragmentation within families, disrupting traditional family values and weakening bonds with non-resident relatives. These changes in family structures, driven by globalisation, demographic shifts, and urbanisation, all share a common factor: they are rooted in space. Spatial analysis is therefore important for understanding modern family dynamics, whether through the atomisation of households (individualism), the physical separation of generations (verticalisation), or migration-related distance. The atomisation of households frames space as a cultural context; migration-related distance frames space as a dynamic process; and the physical separation of generations frames space as a limiting structure. Furthermore, this analysis must integrate anthropological components: kinship rules, fertility norms, housing arrangements, and care obligations. As these components vary regionally (Mönkediek et al., 2017), they shape how geographical factors such as location, settlement size, migration routes, and online networks are associated with shifts in family structures. These theoretical foundations underscore the need to examine how the "Geography of Family" is anchored in the literature and how its spatial and social dimensions interact.

3. Materials and Methods

3.1. Research Design

This study employs a semi-automated systematic mapping method aligned with established frameworks for scoping and mapping reviews, prioritising interdisciplinary breadth and thematic categorisation over exhaustive empirical synthesis. A traditional systematic review was considered unfeasible due to the vast and conceptually fragmented nature of the interdisciplinary discourse. Instead, this study maps the existing literature to categorise themes and identify

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research gaps. The primary advantage of this computational approach is its ability to systematically filter interdisciplinary noise and identify structural thematic cores, which emerge during the mapping process. However, a notable limitation of this approach is its strict reliance on standardised metadata and keyword density, which risks overlooking qualitative studies that employ non-standard geographical terminology.

3.2. Data Source

The Web of Science (WoS) Core Collection was selected as the primary data source. To capture the maximum interdisciplinary breadth of the fragmented field, the search was executed across the entire Core Collection without applying restrictive sub-index filters, thereby encompassing the social sciences, humanities, and emerging sources simultaneously. Although other databases, such as Scopus, offer extensive coverage, WoS was chosen for its consistent bibliometric metadata (e.g., standardised subject categories and citation links). This consistency is essential for reliable network analysis in VOSviewer. The selection was limited to peer-reviewed original research articles, books and book chapters to ensure a high level of methodological rigour and quality control. Editorials and meeting abstracts were excluded, as they lack sufficient data for synthesis.

The search covered the period from 1 January 2014 to 1 November 2024. Prior to the main search, an initial scoping investigation identified five key articles that illustrate the practical advantages of bridging geographical and family research. These articles served as references for refining the keyword selection, ensuring that the search strategy was calibrated to capture the relevant interdisciplinary discourse. The search strategy employed a combinatorial logic of two conceptual groups:

- Group A (spatial dimension): space; spatial*; pattern*; mobil*; GIS; geograph*; distribut*; migration*; residen*; locat*; proxim*; distan*; region*; countr*.
- Group B (family dimension): famil*; genealog*; network; generatio*; intergeneratio*; postmarital; marriage; individuali?*; collectivis*; cultur*; globali?a*; demograph*; GEDCOM*; relativ*.

The query required at least one term from Group A and at least one term from Group B, with the broad field tag "ALL" applied. Due to string-length limitations, this framework was systematically permuted to generate 196 distinct search queries. The query structure is provided in Appendix A.

3.3. Inclusion and Exclusion Criteria

Given its multidisciplinary scope, the dual-group search strategy required strict eligibility criteria to maintain conceptual coherence. The primary objective of this review is to map spatially explicit research on family behaviour, kinship patterns, and intergenerational relationships within a cultural-anthropological framework, specifically examining how families make spatial decisions, maintain ties across distance, and reproduce regionally specific structures within the literature. This orientation is complementary to, but distinct from, quantitative demographic research focused on vital events. Consequently, individual demographic event terms such as fertility, divorce, and cohabitation were deliberately excluded from the primary search strings. Including them individually would have introduced a strong retrieval bias towards a large body of demographic literature where geography functions primarily as a statistical reporting boundary (e.g., regional fertility rates or national divorce statistics) rather than as an active analytical variable shaping family behaviour. The criteria were as follows:

- The study explicitly investigates family structures, kinship networks, and intergenerational relationships in relation to geographical space and spatial mobility.
- Space or geography is treated as an analytical variable (e.g., distance, location, spatial distribution, or migration flows) rather than merely as a passive setting (e.g., a study that is "conducted in city X" without analysing the spatial context).
- Only peer-reviewed original research articles, books and book chapters were included to ensure the methodological rigour of the source material, benefiting from the quality control inherent in WoS indexing.

Despite matching the keywords, the following studies fell outside the conceptual scope and were excluded:

- Studies utilising "space" strictly in a sociological or psychological sense (e.g., "social space," "personal space," or "negotiating space in relationships") without a geographical dimension.
- Studies focusing exclusively on genetics, DNA analysis or medical genealogy (family history of disease), as they lack a socio-spatial dimension.

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- Editorials, book reviews, meeting abstracts, and corrections were excluded as they do not provide sufficient data for methodological synthesis.

3.4. Data Reduction and Screening

The combinatorial search strategy yielded an extensive initial dataset (n = 1,852,372), confirming the prevalent but often peripheral use of spatial terminology in family studies. A computational filtering strategy based on semantic density was applied to manage this volume without compromising systematicity.

3.4.1. Thematic Centrality Sampling

To reduce the dataset while maintaining its analytical coherence, a sampling strategy based on thematic centrality was employed. This method defines thematic centrality as the ability to reliably retrieve information across different query variations, assuming that records retrieved multiple times under various formulations of the same conceptual space are more likely to be positioned centrally in the literature. This recurrence has been shown to be a reliable indicator of stable relevance across different query representations in multi-query retrieval settings (Bernstein et al., 2020). The strategy aligns with the systemic view of semantic mapping, where meaning is not assigned to individual terms alone but derives from their positions within a document–term space; frequency thresholds are commonly used in this approach to distinguish core semantic content from peripheral material (Leydesdorff & Welbers, 2011). In this study, query-level recurrence serves as a practical proxy for structural centrality, enabling clear and reproducible data reduction prior to detailed analysis.

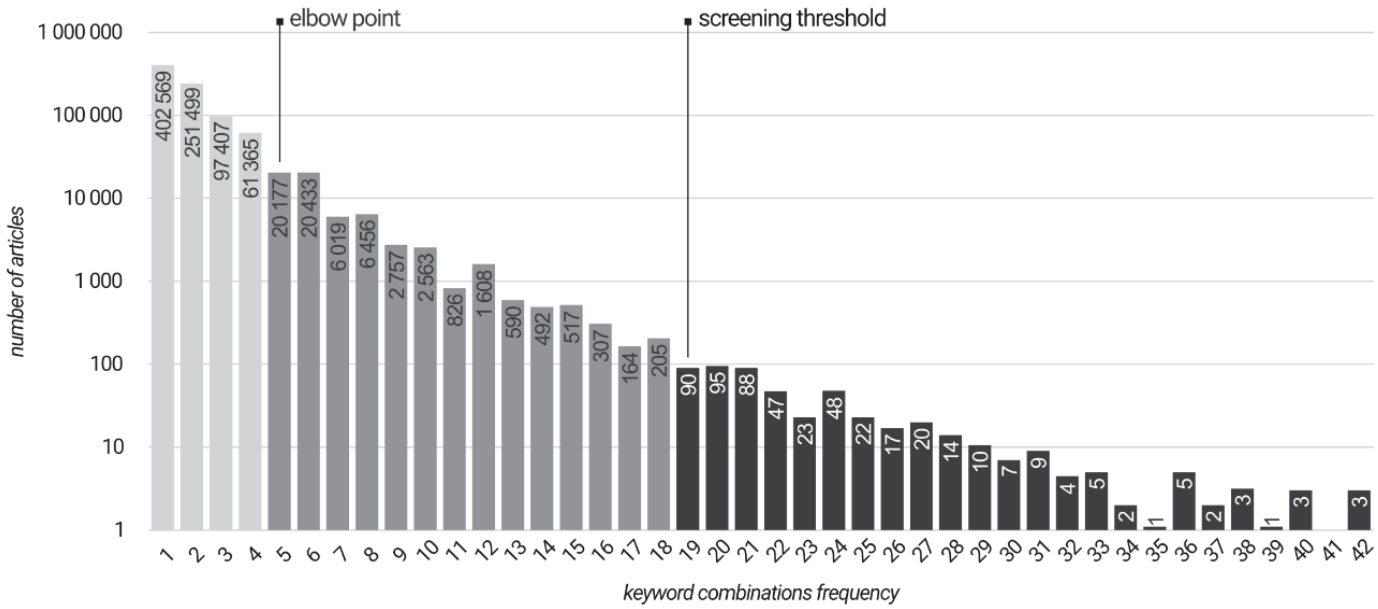

Figure 1. Distribution of articles by keyword combination frequency (y-axis on a logarithmic scale).

Preliminary analysis of keyword co-occurrence revealed an initial inflection point (elbow) at five permutations, distinguishing random noise from records with minimal thematic relevance. However, given the large scale of the dataset below this threshold (n = 43,456), a secondary filtering strategy was necessary to isolate the interdisciplinary core from peripheral literature. A threshold of ≥19 permutations was established (Figure 1). This stricter criterion was designed to capture only records in which spatial and family-related concepts are deeply intertwined across multiple diverse query strings, serving as a proxy for conceptual centrality. To validate this, a sensitivity check on random records (n = 50) in the 12–18 range (borderline) and records (n = 50) in the 5–11 range (long-tail) confirmed that although some studies were topically relevant, they frequently treated space as a background variable rather than an analytical focus, justifying their exclusion for the specific purpose of mapping the analytical core of the field. This method filters out broad literature where space is only mentioned incidentally by favouring studies with multiple conceptual intersections,

ensuring that the final dataset is closely focused on spatial mechanisms. The final dataset contained 519 records representing the conceptual intersection of family and space.

3.4.2. Active Learning Screening (ASReview)

The reduced dataset (n = 519) was processed using ASReview LAB (ASReview LAB developers, 2025) to optimise screening efficiency and ensure systematic prioritisation. This procedure employs a dynamic active learning protocol. Initially, a training dataset was established by manually screening a seed set of abstracts based on predefined inclusion criteria. The ASReview algorithm used this human-in-the-loop input to calibrate its predictive model, which was then retrained with each subsequent inclusion or exclusion decision, continuously pushing the records most likely to be relevant to the top of the queue. Instead of a fixed cut-off, a dynamic stopping criterion was employed based on the relevance return rate. Screening continued until a definitive point of saturation was reached – defined as the point at which the algorithm presented 92 consecutive irrelevant records. This process resulted in the final selection of 49 studies for bibliometric and thematic analysis.

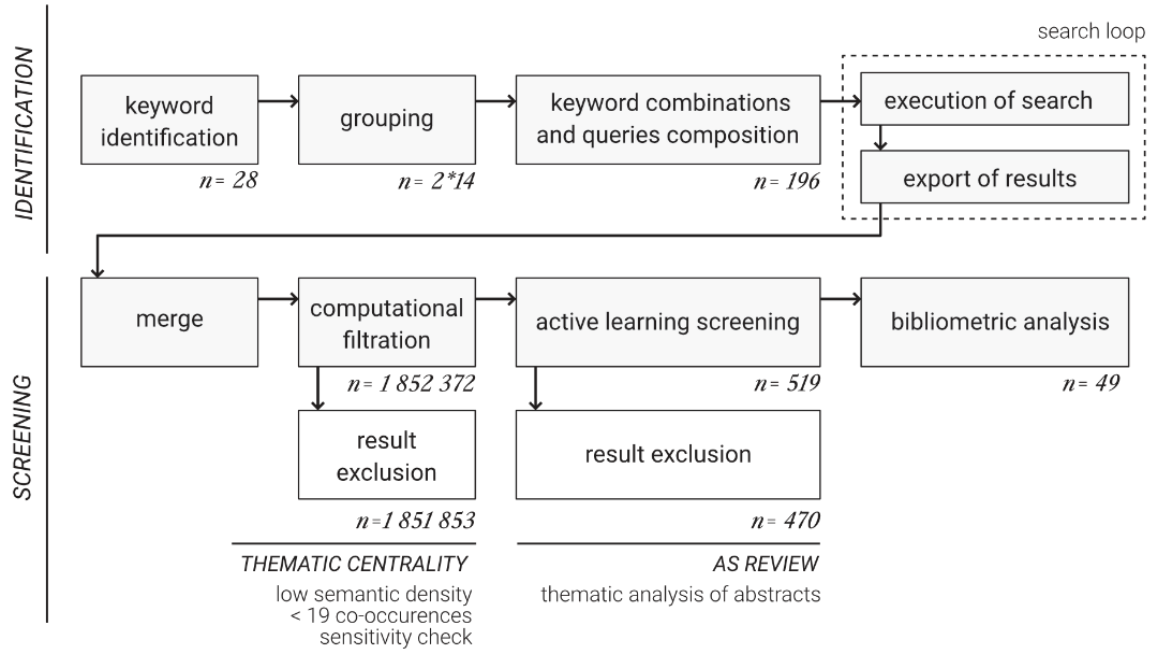

Figure 2. Review workflow diagram.

4. Results

The following section presents the findings of the systematic review and bibliometric analysis.

4.1. The Landscape of Spatial Family Research

Following automated screening, the 49 prioritised records underwent a full-text qualitative review to extract bibliometric data and synthesise theoretical frameworks. Three studies were manually excluded during this stage for lacking an explicit spatial analytical dimension, yielding a final sample of 46 studies. Bibliometric analysis revealed steady growth in publication activity, reflecting increased recognition of spatial factors within the mapped corpus. Based on WoS categories, demographic research accounts for 33% of the sample, indicating a slight disciplinary predominance. However, the literature shows strong interdisciplinary overlap with geography (17%), family studies (14%), and sociology (13%). The remaining categories (23%) are represented in smaller proportions, with no other significant bias evident. Regionally, the distribution heavily favours North American and European contexts, reflecting the availability of high-resolution longitudinal data in these areas.

The bibliometric structure of the field is organised around a strong Transatlantic Axis. The United States and the Netherlands form the network's structural backbone. While the US accounts for the largest share of production (highest

citation count), the Netherlands serves as the central network "broker" (highest Total Link Strength), effectively connecting diverse research groups. Around this axis, two functional clusters emerge:

- *The Collaborative European Cluster*: Countries such as Sweden, Finland, the UK, and Germany form a dense, interconnected network. Strong internal ties (e.g., between the Netherlands and Sweden) indicate a community that frequently cites the same sources and shares a common theoretical framework. This cluster is characterised by high integration rather than sheer volume.
- *The High-Impact Global Cluster*: In contrast, contributors such as China and Singapore (clustered with the US) exhibit a different pattern: high citation impact but lower network connectivity. These nations function as independent research hubs that produce influential studies but are less deeply embedded in the European core's collaborative structures.

Beyond these clusters, the network includes specific bilateral links, such as the strong connection between the US and Kenya, indicating targeted project-based transfers of methodology rather than broad integration. Overall, the field anchors on a US-Netherlands axis, surrounded by a well-connected European community on one side and impactful yet more independent Asian hubs on the other.

4.2. Spatial Dynamics as Identified in the Literature

The reviewed studies indicate that geography is an active factor in the dynamics and evolution of family relationships. The analysed literature highlights two primary causal mechanisms regarding the spatial clustering of relatives, predominantly observed within Western societal models:

- *Retention*: A higher concentration of resident family members reduces the likelihood of out-migration, as they feel more tied to the place (Ermisch & Mulder, 2019; Spring et al., 2017).
- *Attraction*: When a high concentration of kin resides in one region or neighbourhood, it acts as a strong pull factor for in-migration among non-resident relatives (Sandow & Lundholm, 2023). Evidence from Thomas and Dommermuth (2020) indicates that approximately 40 % of all migration events are directed towards locations where family members already reside.

These findings indicate that spatial proximity among family members is a life-course phenomenon. Geography is not simply viewed as a static container of family configurations, but rather as an active result of ongoing mobility processes. This dynamism is evident throughout the life course, where spatial distance continuously fluctuates. Typically, the high mobility characteristic of early adulthood (Kolk, 2017) eventually diminishes; as people age and caregiving needs emerge, they tend to relocate closer to kin (Choi et al., 2021). However, this ability to move is limited by household composition, with the presence of children reinforcing attachment to the local area (Thomas & Dommermuth, 2020). Therefore, spatial distance is a flexible condition determined by the specific life stage and the ability to relocate. Nevertheless, these patterns of mobility and attachment are culturally specific; in non-Western contexts, different socioeconomic pressures may override these voluntary retention and attraction mechanisms.

4.3. Concepts and Keyword Clusters

A keyword co-occurrence analysis was performed using VOSviewer (Van Eck & Waltman, 2010) to identify dominant trends in the integration of family records and space. The analysis revealed three distinct conceptual clusters that outline how modern research defines space (Figure 3). The distribution of keywords, their relationships and their frequency of occurrence shows that the topics form a strong foundation despite being divided into three clusters. The core of the network centres on the concepts of family, migration, and mobility, which act as primary anchors or hubs. The core then connects to more specific topics such as spatial arrangement and intergenerational relationships.

- Space as Context (Cluster 1): Firmly rooted in sociological and demographic traditions, the core of this cluster is intrinsically focused on the family unit itself. It revolves around foundational concepts such as kinship, family ties, sibling networks, and intergenerational relationships, alongside broader demographic patterns like fertility. Within this framework, geography does not act as an independent driver; rather, it operates as a vital macrosocial context – the foundational setting against which these familial dynamics unfold. Consequently, when spatial themes such as mobility are addressed, they are examined primarily through the lens of family relationships. Space, therefore, is operationalised simply as the regional or cultural environment that contextualises how kinship networks operate and how family patterns are reproduced, rather than as an active structural force.

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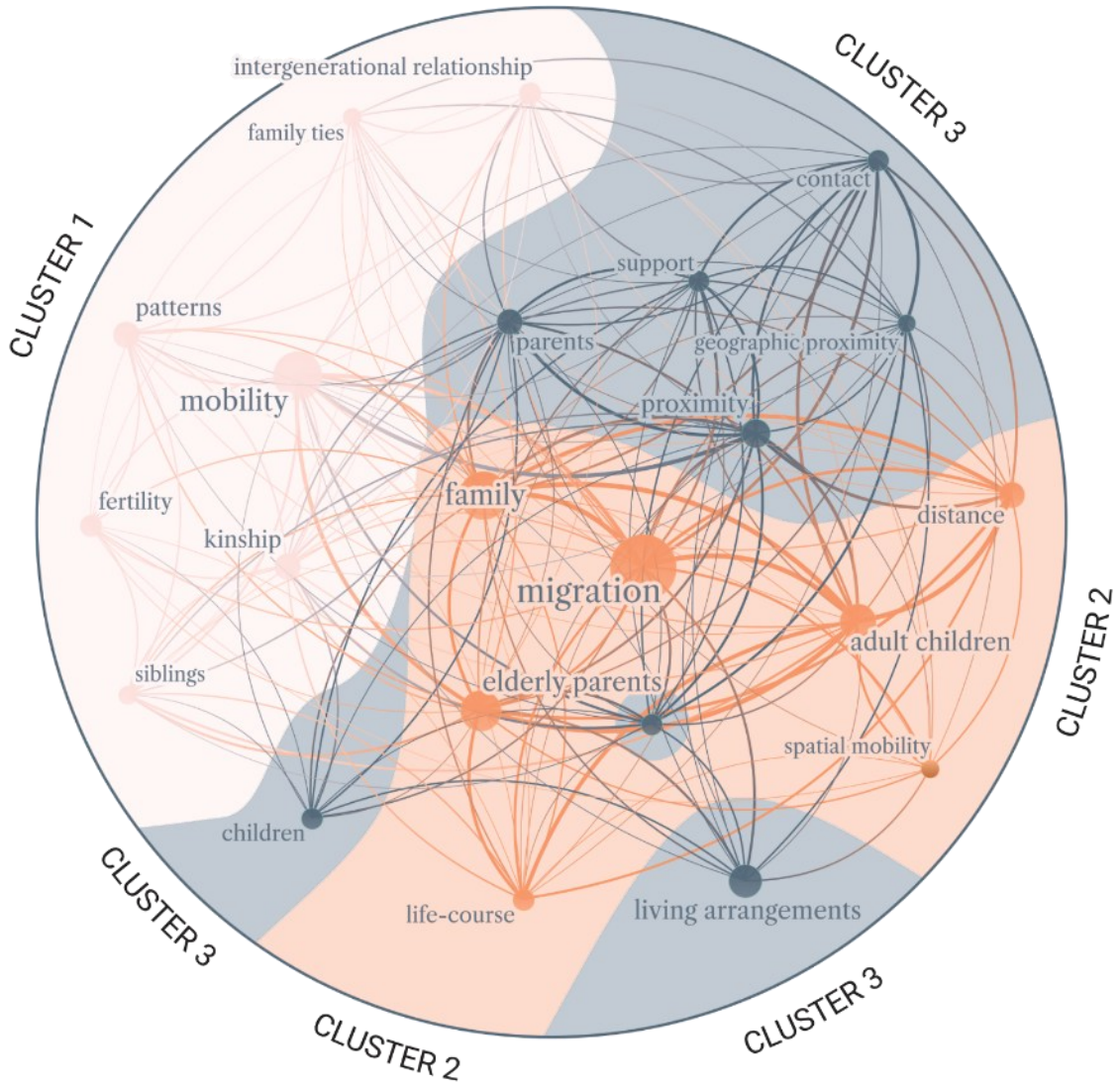

Figure 3. Keyword co-occurrence clusters.

- *Space as Process (Cluster 2)*: This cluster is defined by strong temporal connectivity, where the conceptualisation of space is inherently dynamic. "Relocation interactions" are the most stable group in terms of their connections to other keywords. Studies in this cluster typically examine the effects of geographical mobility on families, including short-term relocation and long-term migration. The key areas of investigation include the drivers of migration, processes of family structure formation, and the impact of relocation on family cohesion and dynamics. Here, space and time are intrinsically linked (e.g., age and life course), leading to an interpretation of space as an ongoing process of reconfiguration.
- *Space as Structure (Cluster 3)*: Although this cluster is visually more fragmented, it serves as a conceptual bridge by focusing on structural availability. Unlike Cluster 2, which focuses on changes in location (process), this cluster treats proximity as a fixed spatial arrangement (structure). The literature in this cluster is primarily concerned with the spatial constraints on care, examining how specific living arrangements – ranging from co-residence to dispersion – shape intergenerational support provision. Specifically, the literature within this cluster investigates the long-term effects of geographical distance on three key areas: (1) the quality of intergenerational relationships and overall well-being; (2) access to care and support networks; and (3) the transmission of cultural values and practices.

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Bibliometric analysis across these three clusters revealed a fundamental shift in contemporary literature. While the first cluster establishes a foundational macrosocial context, the remaining two indicate a significant conceptual evolution. This bibliometric structure demonstrates an ongoing qualitative shift in the social sciences: the field is actively transitioning from viewing space as a regional backdrop to operationalising it as an active mechanism shaping family dynamics. Crucially, the evidence for this "spatial turn" within the domain is defined not by a quantitative surge in publication volume relative to general sociology, but by this qualitative maturation. This suggests that future research may benefit from systematically connecting socio-cultural phenomena with geographical mechanisms, rather than studying them in isolation.

4.4. Operationalisation of Family and Spatial Variables

While clusters describe the subject of study, variables describe how it is operationalised. Based on the systematic mapping, the variables employed in contemporary research can be categorised within a three-part framework. This classification revealed how a disconnection between these layers may limit explanatory potential.

- *Micro-Level (individual and family):* These variables serve as the relational basis for the analysis. Although standard descriptive characteristics such as age, sex, and education are widely used, the classification of kinship ties is a critical analytical component. Without a rigorous definition of these biological and legal relationships, spatial analysis lacks sociological meaning. These typically function as the primary independent variables in the reviewed models.
- *Macro-Level (contextual):* These variables represent the broader demographic and socioeconomic environment that constrains or enables family dynamics. While earlier explicitly spatial literature often treated these structural determinants merely as a qualitative backdrop, contemporary research increasingly integrates them into quantitative, multilevel spatial models. By operationalising macro-variables – such as regional labour market conditions, housing market indicators, urbanisation rates, and historical regional family systems – researchers can account for the structural forces shaping micro-level decisions. Rather than simply describing where families live, the statistical interaction of these contextual factors with individual-level data provides critical explanatory power, statistically revealing why spatial patterns of family behaviour systematically differ across varying economic and demographic landscapes.
- *Spatial Variables (bridge):* This category encompasses both metric attributes, such as the distance between relatives, and non-metric attributes, such as urban/rural classifications or regional typologies. These variables are crucial for translating coordinates and distances into interpretations of family dynamics and structures while connecting the micro and macro levels. Spatial variables enhance research across the conceptual clusters: they enrich the background context (Cluster 1), enable the analysis of temporal dynamics and attraction/retention areas (Cluster 2), and quantify static arrangements and long-term proximity (Cluster 3).

If treated individually, none of the preceding variable groups can yield robust causal explanations; they are fundamentally time dependent. As indicated in the *Space as Process* cluster, temporal dynamics are a critical component of successful complex research. There are two scales of time: the short-term life course, characterised by a U-shaped trajectory of spatial separation and reunion (e.g., leaving the parental home versus returning for elderly care as referred by Kolk, 2017), and the long-term generational scale, which revealed the evolution of verticalisation of family structures over decades or centuries in relation to space. Without this temporal anchor, spatial data provide only a distorted snapshot, incapable of revealing the evolutionary mechanisms of family systems.

A synthesis of the empirical strategies revealed a prevailing methodological imbalance. Most studies successfully integrate *Micro-Level* data with *Spatial Variables* (e.g., by calculating distances between mother and child). However, they frequently do not integrate the *Macro-Level* context into the same statistical models. Future research must move from this imbalanced approach to an integrated triadic model supplemented by a time variable (Figure 4). This requires operationalising contextual factors (economy, policy) as quantifiable variables within multilevel models and not just as narrative setting. We can move from describing where families live to explaining why spatial patterns differ across regions only by statistically interacting spatial metrics with regional macro-indicators. Nevertheless, qualitative narratives remain critical, especially when comparing culturally heterogeneous data samples to accurately interpret these statistical interactions.

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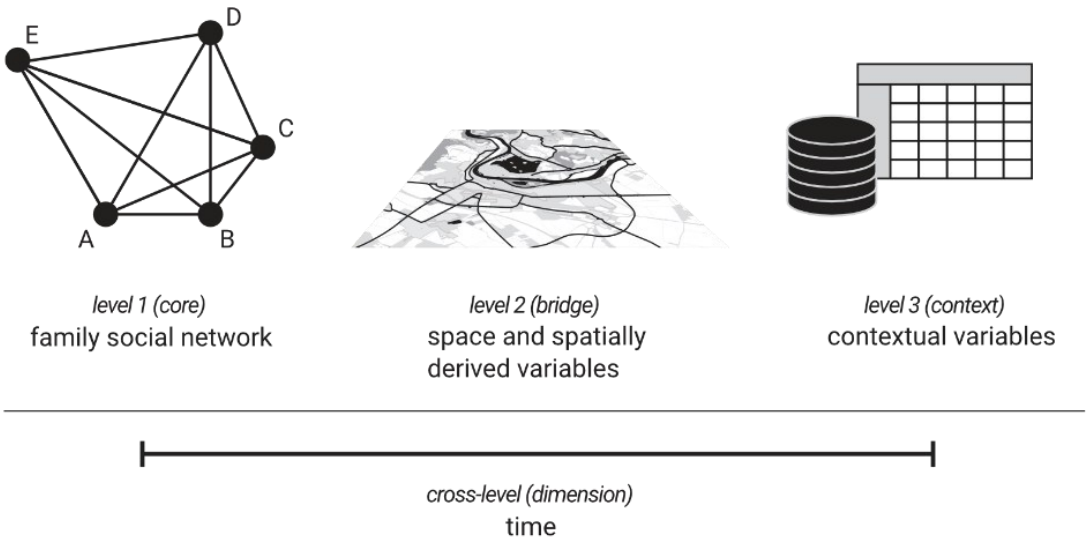

Figure 4. An ideal triadic model of variables for complex spatial family research supported by time.

4.5. Regional Systems and Spatial Logic

A critical synthesis of the included studies revealed no systematic correlation between specific regions and the three spatial conceptualisations (Context, Process, and Structure). Instead, these theoretical frameworks are applied universally across the literature, operating independently of prevailing regional family systems. However, while the theoretical treatment of space remains consistent across the sample, the literature clearly acknowledges that actual family functioning is not globally uniform. At a smaller geographical scale, localised economic constraints and historical cultural legacies firmly dictate how these spatial mechanisms practically unfold.

4.5.1. The North-South Europe Gradient as a Social Determinant

In the European context, the classic north-south gradient remains a strong predictor of intergenerational transmission. This phenomenon is stronger in Southern Europe, characterised by a "strong family context", compared to Western and Northern Europe, which exhibit a "weak family context" (Mönkediek et al., 2017). The literature review indicates that physical distance is perceived at two levels.

The first frames distance as fluid or even irrelevant to communication and the maintenance of social ties, as technology effectively bridges the gap (e.g., Schafer & Sun, 2022; Kalmijn, 2021). The second reframes distance as a significant structural constraint that determines the availability of intergenerational support when considering care obligations. This perspective advances the analysis of space beyond the *Space as Context* cluster, providing higher analytical value (e.g., Mönkediek, 2020; Vergauwen & Mortelmans, 2020). Consequently, the analytical focus shifts toward these structural social constraints.

4.5.2. Compressed Modernity as a Social Determinant

The literature on Emerging and Developing Economies (including those in East Asia and Africa) revealed a distinct spatial model characterised by *compressed modernity* (Kyung-Sup, 2010). Within this model, rapid socioeconomic transformation creates tensions with traditional norms. Abalos and Yeung (2023) analysed this contradiction in the Philippines, emphasising the fundamental inconsistency between cultural stigma and spatial reality: whereas in Advanced Western Economies, living alone is framed as an expression of privacy and autonomy, in the Emerging Asian context, it is often perceived through the lens of loneliness.

Therefore, the increase in single-person households here is not the result of a shift in values towards individualism, but an unintended consequence of demographic necessity (migration for work). Li et al. (2022) also confirmed that

economic structure supersedes cultural patterns. Using geographically weighted regression (GWR) in Chinese cities, they demonstrate that modernisation does not lead linearly to family nuclearisation. Instead, multi-generational cohabitation persists in specific urban clusters as a strategic economic adaptation to high housing costs. This conclusion is also validated by the analysis of so-called "Taobao villages" by Wu and Yuan (2023), who show that economic prosperity in these locations paradoxically leads to the reunification of families into shared housing for business purposes.

4.5.3. Towards Economy-Driven Decisions and Arrangements

A literature synthesis suggests an analytical divergence in academic discourse. However, recent studies indicate that this dichotomy is beginning to blur.

- Literature originating in Advanced Economies has traditionally framed space through the lens of social capital and voluntary support, drawing on the historical gradients described by Hajnal, Todd, and Laslett (Ferguson et al., 2024; Mönkediek et al., 2017; Gruber & Szołtysek, 2016).
- Literature originating in Emerging and Developing Economies, conversely, emphasises spatial arrangement as an economically rooted phenomenon – framing it not as a choice, but as a "survival strategy" (Wu & Yuan, 2023; Li et al., 2022; Madhavan et al., 2014).

Crucially, the analysis suggests that the logic of emerging economies is spreading into Western contexts. Lappegård et al. (2018) describe a pan-European "pattern of disadvantage" in which economic insecurity compels individuals to adopt certain spatial behaviours, such as delaying moving out of their parents' home, regardless of their cultural preferences. These findings align with those from the US, where Spring et al. (2017; 2023) argue that spatial rootedness and proximity to family are often a reflection of ethnic and economic stratification. In other words, space functions restrictively for lower socioeconomic classes in the West, just as it does in regions of compressed modernity.

4.6. Methodological Gap

The review revealed a methodological paradox in current scholarship. While the field employs sophisticated longitudinal techniques to investigate causal mechanisms – such as instrumental variables (Bergsvik et al., 2023), seemingly unrelated regression (Gillespie & van der Lippe, 2015), and multilevel modelling (Abalos & Yeung, 2023) – its spatial methodology remains rudimentary. Despite robust reporting on regional differences (e.g., North vs. South contexts in Mönkediek et al., 2017), comparative research frequently operationalises "region" as a static, black box control variable.

4.6.1. The Infrastructure Barrier

This analytical limitation is structurally rooted in data infrastructure fragmentation. The absence of standardised transnational databases has fostered a form of methodological nationalism, whereby the specific resolutions of national repositories constrain comparative analysis. A clear divergence exists:

- European infrastructures primarily rely on two key sources: (1) *Cross-National Surveys*, predominantly represented by the Survey of Health, Ageing, and Retirement in Europe (SHARE), which serves as a foundational resource for comparative studies on health and social ties; and (2) *Administrative Registers*, commonly used in Northern Europe. The latter leverage a unique methodological asset: population registers based on unique Personal Identification Numbers (PINs), enabling researchers to link attributes across various datasets with high precision.
- North American datasets, conversely, utilise: (1) *Intergenerational Panels*, such as the Panel Study of Income Dynamics (PSID), which provides decades of longitudinal data on employment, wealth, and kinship; and (2) *Genealogical Databases*. A specific niche in US scholarship involves the use of published genealogies, which offer an extensive temporal reach (spanning centuries) that modern administrative data cannot match. However, this often comes at the cost of population representativeness.

In the absence of comparable data and methods, overcoming this methodological nationalism remains a critical barrier to conducting large-scale, transnational spatial analyses.

4.6.2. Spatial Sensitivity

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Reliance on global regression models obscures spatial heterogeneity, which can only be revealed by location-sensitive methods. As demonstrated by Li et al. (2022), tools such as GWR can unlock the "black box" of the region, revealing, for instance, that socioeconomic factors, such as education, exert opposite effects on household structures across different Chinese provinces. Similarly, Koylu et al. (2014) illustrated how GIS-based "space-time cubes" reveal migration corridors that are invisible to static flow maps.

Nevertheless, these advanced spatial techniques remain exceptions. Unlike historical studies, which can freely map trajectories (Chang, 2018; Kasakoff, 2019), contemporary sociological panels (SHARE, PSID) are constrained by strict ethical frameworks that limit geocoding precision. Because micro-level location data are highly sensitive, future research must adopt privacy-preserving spatial techniques. Balancing analytical precision with participant anonymity remains the most significant hurdle in contemporary spatial family research.

4.6.3. Moving Towards Causal Explanations

Bridging these methodological and infrastructural gaps is essential for moving the field from descriptive mappings to causal explanations. While integrating macro-level data with spatial metrics successfully outlines regional disparities, it cannot independently reveal the cultural nuances and internal family logic that drive these patterns. To understand how global trends – such as family verticalisation or spatial fragmentation – manifest locally, structural models must be systematically anchored by micro-level data. Only at the micro level can researchers capture the specific kinship rules, care obligations, and socialisation processes that dictate a family's spatial behaviour. By intersecting individual family dynamics (micro), socioeconomic environments (macro), and location-sensitive metrics (spatial), future research can shift from merely documenting *where* family configurations occur to explaining *why* distinct cultural adaptations emerge under identical structural pressures. This triadic integration is the necessary step for translating the theoretical "spatial turn" into robust empirical practice.

5. Discussion

This study aimed to explore how the interdisciplinary field of family-focused research and how it defines space. Although a "spatial turn" is clear, integrating geography into family studies remains a complex, inconsistent, and often methodologically disjointed endeavour.

5.1. Fragmented Geography

The analysis indicates that the existing literature does not yet form a cohesive "Geography of Family" framework. While individual elements, concepts, and clusters provide a solid foundation, the overall field remains structurally fragmented. The main sample centres on the Transatlantic Axis (USA–Netherlands) as the core knowledge source, whereas the remainder of the research is split between a Collaborative European Cluster (characterised by high integration) and a High-Impact Global Cluster (characterised by low connectivity). Despite its high analytical potential, the topic remains a niche area of study.

This structural fragmentation creates a significant barrier to generalisability. As long as the field remains divided by methodological nationalism – where findings are limited by specific national or regional data infrastructures (e.g., unique Scandinavian registers versus US panel surveys) – a truly global theory of family spatiality cannot be developed. The "Geography of Family" currently functions more as a collection of regional case studies than as a coherent theoretical framework.

5.2. Active Role of Space

Regarding the operationalisation of space, this review identifies an important shift aligned with the study's first research question. The literature is increasingly moving away from treating geography merely as a static background variable towards understanding it as an active, constitutive element of family life.

Crucially, this transition depends on the temporal dimension. The identified mechanisms of retention and attraction demonstrate that space actively shapes family behaviour rather than merely hosting it (as evidenced by the central

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position of family-migration linkages in Figure 3). This confirms that a robust "spatial turn" cannot occur without integrating time. Patterns of intergenerational proximity are not fixed structural features, but dynamic life-course outcomes.

Table 1. Summary of the review's key findings.

Category	Key findings
Bibliometric Structure	Anchored by a Transatlantic Axis (USA–Netherlands), the field revealed a structural dichotomy: a highly integrated "Collaborative European Cluster", which shares theoretical frameworks, and a "High-Impact Global Cluster" (e.g., China, Singapore) with high citation impact but lower network connectivity.
Conceptualisation of Space	The analysis identifies three conceptual clusters: (1) *Space as Context* (foundational macrosocial setting), (2) *Space as Process* (dynamic migration and mobility), and (3) *Space as Structure* (fixed spatial arrangements and distance friction). This confirms a qualitative shift from treating space merely as a static variable to operationalising it as an active determinant.
Spatial Dynamics	Kinship functions as an active spatial force through *Retention* (reducing out-migration via place attachment) and *Attraction* (pulling in-migration). Proximity is not fixed but follows a life course "U-shaped" trajectory, characterised by separation in early adulthood and reunion in later life.
Regional Logic	A North-South gradient (driven by cultural norms) dominates Europe, while compressed modernity (driven by economic necessity) characterises emerging economies. However, growing economic precarity is driving a socio-spatial convergence, where arrangements in the West are increasingly dictated by economic necessity rather than cultural choice.
Data and Analytical Infrastructure	Research is constrained by methodological nationalism stemming from fragmented data infrastructures (e.g., Scandinavian population registers versus US longitudinal panels). While studies successfully link micro-level data to spatial metrics, they frequently fail to statistically integrate macro-structural variables into the same multilevel models.

5.3. Thematic Core

The trends in contemporary literature are clear: the focus lies heavily on intergenerational support, household structures, and the drivers of migration. Propelled by ageing populations and the growing reliance on informal support networks, intergenerational support and its related spatial arrangements will remain central to future research. These core themes form the bedrock of the field, actively integrating concepts of space and time while drawing on regional contexts – such as the European North-South divide and the paradigm of compressed modernity – to explain socioeconomic influences. This intersection presents a critical opportunity to solidify the spatial turn in family-oriented sociology and anthropology. However, current literature frequently prioritises contemporary dynamics while overlooking historical trajectories. As Gruber and Szołtysek (2016) argue, understanding family logic requires a systemic and temporal perspective. The prevailing lack of historical depth currently limits the field's ability to assess the long-term resilience and evolutionary transformation of family systems.

5.4. Methodological Gap

To guide future development, this review underscores the necessity of overcoming a prevailing methodological imbalance. While most existing studies successfully connect Micro-Level data (e.g., family ties) with Spatial Variables (e.g., geographical distance), they frequently fail to quantitatively integrate the Macro-Level context into the same statistical models. Future research must adopt an integrated triadic model that incorporates statistical interactions across all three levels. This entails moving beyond global regression models, which obscure spatial heterogeneity, and adopting location-sensitive tools such as GWR and GIS. Only by leveraging these advanced spatial tools can researchers unlock the "black box" of the region and explain why location-specific factors shape family dynamics differently across the globe. Bridging this gap will not only open new analytical frontiers in geography but also equip sociologists and anthropologists with the robust tools needed to move from spatial description to causal explanation.

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5.5. Limitations of the Study

Although this review highlights strong patterns in the field's spatial evolution, these findings must be interpreted within certain methodological limits. First, relying solely on the WoS Core Collection introduces a potential selection bias. While this approach ensures rigorous methodological standards, it may underrepresent regional studies from non-Anglo-American contexts or non-English-speaking scholars. Consequently, the perceived structural fragmentation of the literature may be partially amplified by database coverage.

Second, the use of thematic centrality sampling and semantic density carries inherent risks. While this strategy successfully identified the core discourse where methodological integration is strongest, peripheral studies employing less standardised terminology may have been excluded.

Furthermore, a critical limitation stems from the reliance on abstract-based screening during the automated active learning phase (ASReview). While human-in-the-loop verification efficiently prioritised studies claiming spatial relevance, abstracts frequently lack methodological transparency. It often became evident only during the in-depth full-text review that space was not deeply integrated into the analytical modelling, leading to the subsequent re-categorisation of several studies into the Space as Context cluster. Consequently, abstract-level screening in this domain often obscures the true depth of a study's spatial operationalisation. Finally, by focusing primarily on contemporary empirical works (2014–2024), this review may have overshadowed older but essential theoretical foundations that fall outside the examined timeframe.

5.6. Theoretical and Practical Implications

The primary theoretical implication of this review is the need for a conceptual and methodological shift across interdisciplinary family research. While the empirical research in this area is still maturing, the proposed triadic model offers a clear pathway forward. By systematically operationalising space as an active structural driver (distance friction) and a dynamic process (mobility), researchers can transition from merely describing regional trends to causally explaining family dynamics.

Practically, because the interdisciplinary "Geography of Family" remains unanchored, direct policy applications remain limited by current data fragmentation. Translating these complex socio-spatial dynamics into immediate, actionable measures is currently unfeasible. However, establishing a robust spatial methodology remains a critical long-term objective for understanding broader societal resilience. As families navigate pressing structural shifts – namely the atomisation of households, the verticalisation of lineages, and migration-driven spatial fragmentation – the intersection of regional geography and anthropological norms represents a vital phenomenon for continued scholarly investigation. Future research must clarify how diverse spatial environments shape the maintenance of kinship networks and intergenerational support – a trajectory that the mapped literature confirms is rapidly emerging as a central and expanding focus of contemporary research.

6. Conclusions

A significant trend within explicitly spatial family research is the focus on social support and intergenerational relationships in a spatial context, examining how distance and location influence family dynamics, particularly how distance and location influence family dynamics and migration patterns across life stages. This emphasis is particularly relevant to understanding of support systems for families and older adults amid the global trend toward ageing populations. While a considerable proportion of contemporary research relies on recent data, it is important to acknowledge that family structures are profoundly influenced by cultural and historical contexts, manifesting patterns that persist across decades. This historical dimension, which is frequently overlooked due to data limitations, is nevertheless invaluable for a comprehensive understanding of family dynamics. Consequently, future research exploring historical family patterns and their spatial variations would offer valuable insights into the evolution of family support systems and their resilience amid demographic changes.

Methodological approaches that effectively integrate family records with advanced spatial analytics remain underdeveloped in the current literature. While selected works offer promising examples of how spatial analytics can enrich contemporary discourse, researchers remain hesitant to adopt tools such as GIS. Researchers can overcome this hesitation by adopting a functional triadic model anchored in time. This framework acts as a bridge, enabling scholars to

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move beyond standard statistical modelling toward more complex spatial analyses without losing their theoretical foundation. By integrating micro-level family ties, macro-level structural conditions, and active spatial dynamics, this approach facilitates a deeper understanding of the family-oriented processes that intersect the clusters of Context, Process, and Structure.

The "Geography of Family" must move beyond treating space merely as a static background for demographic events. To transition from describing regional trends to actively predicting how economic pressures and demographic transitions reconfigure kinship networks, future research must systematically operationalise spatial friction as an explanatory variable. Without this rigorous integration of spatial analytics, our understanding of family dynamics remains descriptive rather than explanatory, failing to capture the complex interplay of location, decision-making, and intergenerational resilience in a globalised world.

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Appendix A

ALL=((("group A" AND "group B"))) AND WC=(Demography OR Geography OR Anthropology OR Biology OR Genetics OR Heredity OR Sociology OR History OR "Ethnic Studies" OR "Family Studies" OR Literature OR "Area Studies" OR "Humanities Multidisciplinary" OR "Geosciences Multidisciplinary" OR "Social Sciences Interdisciplinary" OR "Psychology Social" OR "Psychology Multidisciplinary" OR Psychology OR "Information Science Library Science" OR "Women's Studies" OR "Multidisciplinary Sciences" OR "Computer Science Interdisciplinary Applications" OR "Computer Science Information Systems" OR "Cultural Studies") AND PY=(2014 OR 2015 OR 2016 OR 2017 OR 2018 OR 2019 OR 2020 OR 2021 OR 2022 OR 2023 OR 2024)

References

Abalos, J. B., & Yeung, W.-J. J. (2023). Demographic, socioeconomic, and cultural factors for the rise in one-person households in developing countries: The case of the Philippines. *Journal of Population Research*, *40*(4), 20. https://doi.org/10.1007/s12546-023-09312-z

Abel, S., Machin, T., & Brownlow, C. (2021). Social media, rituals, and long-distance family relationship maintenance: A mixed-methods systematic review. *New Media & Society*, *23*(3), 632–654. https://doi.org/10.1177/1461444820958717

Alvarez, E. C., Kawachi, I., & Romani, J. R. (2017). Family social capital and health – a systematic review and redirection. *Sociology of Health & Illness*, *39*(1), 5–29. https://doi.org/10.1111/1467-9566.12506

Artamonova, A., & Gillespie, B. J. (2022). Older Adults' Internal Migration Toward Faraway Siblings. *The Journals of Gerontology: Series B*, *77*(7), 1336–1349. https://doi.org/10.1093/geronb/gbac011

Artamonova, A., & Gillespie, B. J. (2023). Geographic proximity to siblings in older adulthood. *Demographic Research*, *49*(7), 143–156. https://doi.org/10.4054/DemRes.2023.49.7

ASReview LAB developers. (2025). *ASReview LAB – A tool for AI-assisted systematic reviews* (Version v2.2) [Computer software]. Zenodo. https://doi.org/10.5281/ZENODO.3345592

Baldassar, L., Nedelcu, M., Merla, L., & Wilding, R. (2016). ICT-based co-presence in transnational families and communities: Challenging the premise of face-to-face proximity in sustaining relationships. *Global Networks*, *16*(2), 133–144. https://doi.org/10.1111/glob.12108

Bengtson, V. L. (2001). Beyond the Nuclear Family: The Increasing Importance of Multigenerational Bonds. *Journal of Marriage and Family*, *63*(1), 1–16. https://doi.org/10.1111/j.1741-3737.2001.00001.x

Bergsvik, J., Cools, S., & Hart, R. K. (2023). Explaining Residential Clustering of Large Families. *European Journal of Population*, *39*(1), 13. https://doi.org/10.1007/s10680-023-09655-6

Bernard, A., & Perales, F. (2024). The intergenerational transmission of migration capital: The role of family migration history and lived migration experiences. *Demographic Research*, *50*(29), 827–870. https://doi.org/10.4054/DemRes.2024.50.29

Bernstein, K., Raiber, F., Kurland, O., & Culpepper, J. S. (2020). Cluster-Based Document Retrieval with Multiple Queries. *Proceedings of the 2020 ACM SIGIR on International Conference on Theory of Information Retrieval*, 33–40. https://doi.org/10.1145/3409256.3409825

Campbell, A. (2000). Cultural identity as a social construct. *Intercultural Education*, *11*(1), 31–39. https://doi.org/10.1080/14675980050005370

Coontz, S. (2004). The world historical transformation of marriage. *Journal of Marriage and Family*, *66*(4), 974–979. https://doi.org/10.1111/j.0022-2445.2004.00067.x

Chan, T. W., & Ermisch, J. (2015). Residential proximity of parents and their adult offspring in the United Kingdom, 2009–10. *Population Studies*, *69*(3), 355–372. https://doi.org/10.1080/00324728.2015.1107126

Chang, C. C. (2018). Hakka genealogical migration analysis enhancement using big data on library services. *Library Hi Tech*, *36*(3), 426–442. https://doi.org/10.1108/LHT-08-2017-0172

Choi, H., Schoeni, R. F., Wiemers, E. E., Hotz, V. J., & Seltzer, J. A. (2020). Spatial Distance Between Parents and Adult Children in the United States. *Journal of Marriage and Family*, *82*(2), 822–840. https://doi.org/10.1111/jomf.12606

Choi, H., Schoeni, R., Xu, H., Reyes, A., & Thomas, D. (2021). Proximity to mother over the life course in the United States: Overall patterns and racial differences. *Demographic Research*, *45*(23), 769–806. https://doi.org/10.4054/DemRes.2021.45.23

Clark, S., Madhavan, S., Cotton, C., Beguy, D., & Kabiru, C. (2017). Who Helps Single Mothers in Nairobi? The Role of Kin Support. *Journal of Marriage and Family*, *79*(4), 1186–1204. https://doi.org/10.1111/jomf.12404

Cotton, C., & Beguy, D. (2021). Long-Distance Mothering in Urban Kenya. *Journal of Marriage and Family*, *83*(2), 482–497. https://doi.org/10.1111/jomf.12719

Dykstra, P. A. (1995). Loneliness among the Never and Formerly Married: The Importance of Supportive Friendships and a Desire for Independence. *The Journals of Gerontology: Series B*, *50B*(5), S321–S329. https://doi.org/10.1093/geronb/50B.5.S321

Ermisch, J., & Mulder, C. H. (2019). Migration Versus Immobility, and Ties to Parents. *European Journal of Population*, *35*(3), 587–608. https://doi.org/10.1007/s10680-018-9494-0

Ferguson, S., Haartsen, T., Steinführer, A., & Catney, G. (2024). The role of non-resident family ties in rural staying. *Population, Space and Place*, *30*(3), e2708. https://doi.org/10.1002/psp.2708

Fingerman, K. L., Huo, M., & Birditt, K. S. (2020). A Decade of Research on Intergenerational Ties: Technological, Economic, Political, and Demographic Changes. *Journal of Marriage and Family*, *82*(1), 383–403. https://doi.org/10.1111/jomf.12604

Ghosh, A., Berg, V., Bhattacharya, K., Monsivais, D., Kertesz, J., Kaski, K., & Rotkirch, A. (2019). Migration patterns of parents, children and siblings: Evidence for patrilocality in contemporary Finland. *Population, Space and Place*, *25*(5), e2208. https://doi.org/10.1002/psp.2208

Gillespie, B. J., & van der Lippe, T. (2015). Intergenerational cohesiveness and later geographic distance to parents in the Netherlands. *Advances in Life Course Research*, *23*, 56–66. https://doi.org/10.1016/j.alcr.2014.07.001

Gruber, S., & Szołtysek, M. (2016). The patriarchy index: A comparative study of power relations across historical Europe. *The History of the Family*, *21*(2), 133–174. https://doi.org/10.1080/1081602X.2014.1001769

Gruijters, R. J. (2017). Intergenerational Contact in Chinese Families: Structural and Cultural Explanations. *Journal of Marriage and Family*, *79*(3), 758–768. https://doi.org/10.1111/jomf.12390

Hagestad, G. O. (1986). Dimensions of Time and the Family. *American Behavioral Scientist*, *29*(6), 679–694. https://doi.org/10.1177/000276486029006004

Huangfu, Y., & Nobles, J. (2022). Intergenerational support during the rise of mobile telecommunication in Indonesia. *Demographic Research*, *46*(36), 1065–1108. https://doi.org/10.4054/DemRes.2022.46.36

Kalmijn, M. (2021). Long-term trends in intergenerational proximity: Evidence from a grandchild design. *Population, Space and Place*, *27*(8), e2473. https://doi.org/10.1002/psp.2473

Kasakoff, A. B. (2019). The Changing Space of Families: A Genealogical Approach. *Social Science History*, *43*(1), 1–29. Cambridge Core. https://doi.org/10.1017/ssh.2018.39

Kaur, P., Permanyer Ugartemendia, I., & Esteve Palós, A. (2024). Research note: Continuity or change: Intergenerational patrilocal residence patterns among Indians in India and abroad (USA, UK, and Canada). *Journal of Family Research*, *36*, 250–261. https://doi.org/10.20377/jfr-1036

Kolk, M. (2017). A Life-Course Analysis of Geographical Distance to Siblings, Parents, and Grandparents in Sweden. *Population, Space and Place*, *23*(3), e2020. https://doi.org/10.1002/psp.2020

Koylu, C., Guo, D., Huang, Y., Kasakoff, A., & Grieve, J. (2021). Connecting family trees to construct a population-scale and longitudinal geo-social network for the U.S. *International Journal of Geographical Information Science*, *35*(12), 2380–2423. https://doi.org/10.1080/13658816.2020.1821885

Koylu, C., Guo, D., Kasakoff, A., & Adams, J. W. (2014). Mapping family connectedness across space and time. *Cartography and Geographic Information Science*, *41*(1), 14–26. https://doi.org/10.1080/15230406.2013.865303

Kulu, H., & Hannemann, T. (2016). Introduction to research on immigrant and ethnic minority families in Europe. *Demographic Research*, *S18*(2), 31–46. https://doi.org/10.4054/DemRes.2016.35.2

Kyung-Sup, C. (2010). The second modern condition? Compressed modernity as internalized reflexive cosmopolitization. *The British Journal of Sociology*, *61*(3), 444–464. https://doi.org/10.1111/j.1468-4446.2010.01321.x

Lappegård, T., Klüsener, S., & Vignoli, D. (2018). Why are marriage and family formation increasingly disconnected across Europe? A multilevel perspective on existing theories. *Population, Space and Place*, *24*(2), e2088. https://doi.org/10.1002/psp.2088

Laslett, P. (1977). Characteristics of the Western Family Considered Over Time. *Journal of Family History*, *2*(2), 89–115. https://doi.org/10.1177/036319907700200201

Leydesdorff, L., & Welbers, K. (2011). *The semantic mapping of words and co-words in contexts* (arXiv:1011.5209). arXiv. https://doi.org/10.48550/arXiv.1011.5209

Li, T., Liu, T., Liu, J., & Cheng, T. (2022). Spatial analyses of factors affecting household structure in Chinese cities: The case of three-generation lineal households. *Journal of Geographical Sciences*, *32*(12), 2560–2576. https://doi.org/10.1007/s11442-022-2061-y

Lynch, R., Schaffnit, S., Sear, R., Sosis, R., Shaver, J., Alam, N., Blumenfield, T., Mattison, S. M., & Shenk, M. (2022). Religiosity is associated with greater size, kin density, and geographic dispersal of women's social networks in Bangladesh. *Scientific Reports*, *12*(1), 18780. https://doi.org/10.1038/s41598-022-22972-w

Madhavan, S., Clark, S., Araos, M., & Beguy, D. (2018). Distance or location? How the geographic distribution of kin networks shapes support given to single mothers in urban Kenya. *The Geographical Journal*, *184*(1), 75–88. https://doi.org/10.1111/geoj.12230

Madhavan, S., Mee, P., & Collinson, M. (2014). Kinship in Practice: Spatial Distribution of Children's Kin Networks. *Journal of Southern African Studies*, *40*(2), 401–418. https://doi.org/10.1080/03057070.2014.906211

Miceli, A., & Bilecen, B. (2025). The Role of Family Ties in Mobility and Immobility Decisions: A Case Study of Italy. *Population, Space and Place*, *31*(6), e70092. https://doi.org/10.1002/psp.70092

Michielin, F., & Mulder, C. (2007). Geographical distances between adult children and their parents in the Netherlands. *Demographic Research*, *S6*(22), 655–678. https://doi.org/10.4054/DemRes.2007.17.22

Mikolai, J., Mulder, C., & Kulu, H. (2020). Family life transitions, residential relocations, and housing in the life course: Current research and opportunities for future work: Introduction to the Special Collection on "Separation, Divorce, and Residential Mobility in a Comparative Perspective". *Demographic Research*, *S27*(2), 35–58. https://doi.org/10.4054/DemRes.2020.43.2

Mönkediek, B. (2020). Patterns of spatial proximity and the timing and spacing of bearing children. *Demographic Research*, *42*(16), 461–496. https://doi.org/10.4054/DemRes.2020.42.16

Mönkediek, B., Rotering, P., & Bras, H. (2017). Regional Differences in the Intergenerational Transmission of Family Size in Europe. *Population, Space and Place*, *23*(2), e2003. https://doi.org/10.1002/psp.2003

Monti, A., & Saarela, J. (2025). Geographical immobility and local ancestral ties: A study of three generations of natives in Finland. *Geografiska Annaler: Series B, Human Geography*, *107*(2), 117–134. https://doi.org/10.1080/04353684.2023.2283102

Mulder, C. (2018). Putting family centre stage: Ties to nonresident family, internal migration, and immobility. *Demographic Research*, *S24*(43), 1151–1180. https://doi.org/10.4054/DemRes.2018.39.43

Oláh, L. Sz., Vignoli, D., & Kotowska, I. E. (2021). Gender Roles and Families. In K. F. Zimmermann (Ed.), *Handbook of Labor, Human Resources and Population Economics* (pp. 1–28). Springer International Publishing. https://doi.org/10.1007/978-3-319-57365-6_23-1

Pesando, L. M., & GFC team. (2019). Global Family Change: Persistent Diversity with Development. *Population and Development Review*, *45*(1), 133–168. https://doi.org/10.1111/padr.12209

Reyes, A., Schoeni, R. F., & Choi, H. (2020). Race/Ethnic Differences in Spatial Distance Between Adult Children and Their Mothers. *Journal of Marriage and Family*, *82*(2), 810–821. https://doi.org/10.1111/jomf.12614

Sandow, E., & Lundholm, E. (2023). Leaving the City: Counterurbanisation and Internal Return Migration in Sweden. *European Journal of Population*, *39*(1), 7. https://doi.org/10.1007/s10680-023-09649-4

Schafer, M. H., & Sun, H. (2022). There at any distance? Geographic proximity and the presence of adult children in older Europeans' core discussion networks. *Social Science Research*, *102*, 102643. https://doi.org/10.1016/j.ssresearch.2021.102643

Schönpflug, U. (2001). Intergenerational Transmission of Values: The Role of Transmission Belts. *Journal of Cross-Cultural Psychology*, *32*(2), 174–185. https://doi.org/10.1177/0022022101032002005

Smock, P. J., & Schwartz, C. R. (2020). The Demography of Families: A Review of Patterns and Change. *Journal of Marriage and Family*, *82*(1), 9–34. https://doi.org/10.1111/jomf.12612

Spring, A., Ackert, E., Crowder, K., & South, S. J. (2017). Influence of Proximity to Kin on Residential Mobility and Destination Choice: Examining Local Movers in Metropolitan Areas. *Demography*, *54*(4), 1277–1304. https://doi.org/10.1007/s13524-017-0587-x

Spring, A., Ackert, E., Roche, S., Parris, D., Crowder, K., & Kravitz-Wirtz, N. (2023). Keeping kin close? Geographies of family networks by race and income, 1981–2017. *Journal of Marriage and Family*, *85*(4), 962–986. https://doi.org/10.1111/jomf.12911

Therborn, G. (2004). Between Sex and Power: Family in the World 1900-2000 (1st ed.). Routledge. https://doi.org/10.4324/9780203643297

Thomas, M. J., & Dommermuth, L. (2020). Internal Migration and the Role of Intergenerational Family Ties and Life Events. *Journal of Marriage and Family*, *82*(5), 1461–1478. https://doi.org/10.1111/jomf.12678

Li, T., Liu, T., Liu, J., & Cheng, T. (2022). Spatial analyses of factors affecting household structure in Chinese cities: The case of three-generation lineal households. *Journal of Geographical Sciences*, *32*(12), 2560–2576. https://doi.org/10.1007/s11442-022-2061-yVan Eck, N. J., & Waltman, L. (2010). Software survey: VOSviewer, a computer program for bibliometric mapping. *Scientometrics*, *84*(2), 523–538. https://doi.org/10.1007/s11192-009-0146-3

Vergauwen, J., & Mortelmans, D. (2020). Parental health, informal support, and geographic mobility between parents and adult children. *Population, Space and Place*, *26*(2), e2301. https://doi.org/10.1002/psp.2301

Wu, X., & Yuan, Z. (2023). Understanding the socio-cultural resilience of rural areas through the intergenerational relationship in transitional China: Case studies from Guangdong. *Journal of Rural Studies*, *97*, 303–313. https://doi.org/10.1016/j.jrurstud.2022.12.001

Yang, J., & McDonnell, M. (2024). Social Structures and Family Systems: An Analysis of Cultural Influences. *Journal of Psychosociological Research in Family and Culture*, *2*(1), 31–41. https://doi.org/10.61838/kman.jprfc.2.1.6

Yeung, W.-J. J., & Cheung, A. K.-L. (2015). Living Alone: One-person households in Asia. *Demographic Research*, *S15*(40), 1099–1112. https://doi.org/10.4054/DemRes.2015.32.40

Zilincikova, Z., & Schnor, C. (2023). Trends in Distance Between Non-resident Parents and Minor Children Following Separation: Analysis of the Belgian Case, 1992–2018. *European Journal of Population*, *39*(1), 27. https://doi.org/10.1007/s10680-023-09674-3

https://doi.org/10.48088/ejg.p.mly.17.1.194.211