pro-metrics

Family and marital status: A bibliometric analysis based on research indexed in Web of Science

Nurlan Baigabylov[1], Ainur Mussabayeva[1,*], Medet Kudabekov[1], Khalil Maslov[2], Aigul Turlybekova[3]

[1] Departament of Sociology, L. N. Gumilyov Eurasian National University, Kazakhstan.
[2] The "Alash" Institute of Culture and Spiritual Development, L. N. Gumilyov Eurasian National University, Kazakhstan.
[3] Department of "History of Kazakhstan", Toraighyrov University, Kazakhstan.
* Corresponding author
   Email: mussabayeva_ab@enu.kz. **ORCID:** https://orcid.org/0000-0009-7411-4717

ABSTRACT

Objective. A comprehensive analysis of the scientific production on family and marital status, as indexed in the Web of Science Core Collection from 2001 to 2024, was conducted. This analysis aimed to identify patterns of international and institutional collaboration, as well as the field's predominant thematic structures.

Design/Methodology/Approach. A bibliometric approach was applied to a dataset of 8,457 articles classified under the Family Studies category in the Web of Science Core Collection. To this end, directed networks of country collaboration, institutional collaboration, and keyword co-occurrence were constructed and analyzed using Gephi. The analysis focused on weighted degree, betweenness centrality, and harmonic closeness centrality, while thematic communities were identified through modularity analysis.

Results/Discussion. The findings indicated a field characterized by extensive integration within a hierarchical structure. International and institutional collaboration networks exhibited a pronounced centralization around universities and countries in the Global North, particularly the United States. The thematic structure was organized around a stable relational and psychosocial core centered on family, parenting, marriage, and mental health, alongside specialized communities addressing family violence, inequality, gender and sexual diversity, professional intervention, and academic training.

Conclusions. The study of family and marital status is a mature and multidimensional field. While the phenomenon of collaboration is becoming increasingly transnational, the distribution of scientific visibility and agenda-setting remains uneven.

KEYWORDS: family studies; marital status; bibliometric analysis; scientific collaboration; keyword co-occurrence; Web of Science.

1. INTRODUCTION

The study of family and marital status has historically been a primary area of focus within the social sciences. The extant literature explores family and marital relationships from various viewpoints, including psychological, sociological, educational, and cultural. These viewpoints demonstrate that marital and family connections not only shape private life but are also connected to larger social processes such as work, education, health, and public policy (Chung, 1990; Robles & Sarcon, 2023). Research focusing on the link between family dynamics and marital satisfaction shows that factors such as family support, communication, and emotional climate greatly impact marital well-being, especially in settings with high work or social demands (Robles & Sarcon, 2023). A multitude of studies have previously identified the pivotal influence of social contexts and periods of crisis in the reconfiguration of family relationships. Furthermore, recent longitudinal research suggests that collective stressors, such as the COVID-19 pandemic, amplify domestic disorder and substantially impact parent-child relationships and sibling interactions, thereby validating the susceptibility of family systems to external structural influences (Cassinat *et al.,* 2021). From a comparative and cultural perspective, research also demonstrates how family and marital relationships are strongly influenced by specific traditions, values, and normative frameworks. Research focusing on post-Soviet and Central Asian contexts demonstrates that family and marriage models are shaped by particular historical, religious, and political factors, leading to varied family structures and different interpretations of marriage and family life (Usmonova, 2025).

Concurrently, the extant literature has called into question the conceptual and methodological foundations of studying marital relationships. Classic critical reviews have identified persistent conceptual ambiguities, theoretical limitations, and sample biases in research on marital satisfaction. These reviews also demonstrate a tendency to favor Western contexts and homogeneous populations (Chung, 1990). These issues persist in contemporary scholarship, underscoring the necessity for systematic evaluations to identify patterns, gaps, and imbalances in extant research. In this context, bibliometric studies have played a pivotal role in the organization and systematization of the accumulated knowledge. One of the earliest systematic predecessors is the classic study by Bayer (1982), who examined the literature on marriage and family from a citation perspective, finding that the visibility of articles largely depended on their theoretical grounding, their connection to current research, and the academic prestige of the authors. This work laid the foundation for understanding the field as a structured system of scientific production. However, its methodological and temporal scope was limited, which precluded a more comprehensive understanding of the field. In the domain of family therapy, Lou and Lin's (2012) comprehensive review of scientific publications indexed in the Social Sciences Citation Index database from 1992 to 2009 underscores a pronounced focus on adolescents and children, complemented by a clinical emphasis on eating disorders, substance abuse, and depression. The study also demonstrated a substantial geographical concentration, with the United States as the predominant producer, followed by European countries at a considerable distance.

Concurrent studies have focused on particular aspects of family relationships, such as communication. A study by Viana and Teixeira (2021) reviewed the extant literature on communication and family relationships since the year 2000. The study revealed a strong connection between the terms family, marriage, communication, and health. Furthermore, the study reaffirmed the dominance of research conducted in the United States. The authors emphasize the necessity of expanding research to other national contexts. Concurrently, numerous studies have centered on the ramifications of marital dissolution, with a particular emphasis on divorce. Akpan (2020) and Akpan and Ezeume (2022) conducted bibliometric and visualization analyses, which revealed a persistent increase in scientific production on the subject and a discernible correlation between divorce rates and research volume. The findings of the study suggest that the ramifications of divorce are addressed from multiple perspectives, exerting an influence on parents and children that is multifaceted, including economic, psychological, social, and health-related

dimensions. Furthermore, the research indicates that these effects are interwoven and not linear in nature.

Recently, bibliometric analyses have broadened their focus to include current phenomena at the intersection of family, work, and social development. A comprehensive overview of the field of work-family balance is provided in the study by Yan *et al.* (2025). The study highlights dominant theoretical frameworks, such as job demands-resources theory and conservation of resources theory. The study also demonstrates an increasing thematic diversity that includes well-being, mental health, and sustainability. Concurrently, other recent research has explored specific normative and cultural issues related to marriage, including child marriage, forced marriage, and contractual marriage. The study by Islam *et al.* (2025) also offers a global overview of this literature by analyzing data from Scopus and the Web of Science (WoS), identifying trends in growth, key contributors, and prevalent terms such as child marriage. In light of the aforementioned considerations, this study endeavors to undertake a comprehensive analysis of research pertaining to family and marital status, as indexed in WoS, during the period spanning from 2001 to 2024. Utilizing a bibliometric approach, it will integrate the analysis of institutional and country collaboration networks with the study of term co-occurrence. This approach aims to facilitate a more comprehensive understanding of studies pertaining to family and marital status, thereby providing an empirical foundation for future theoretical, comparative, and methodological research.

2. METHODOLOGY

The source of information used for the study was WoS, considering all the databases in its Core Collection. The bibliographic search, conducted from 2001 to 2024, encompassed empirical and applied research on family and marital status. To ensure the thematic and methodological relevance of the sample, the results were limited strictly to scientific articles, excluding other document types, with an additional filter applied for the Family Studies category. This methodological approach enabled the analysis to concentrate exclusively on research directly related to this disciplinary field. The retrieval strategy entailed searching for the terms "family" (in the Title field, using the truncated operator "family**") and "marital," ensuring the inclusion of studies explicitly focused on family and marital status. The resultant dataset comprised a total of 8,457 documents, constituting the final sample for the study. The final set of documents was used to establish networks of institutional and intercountry collaboration. These networks were then employed to analyze the relational structure of scientific production. For institutional collaboration, a minimum of five publications per institution was established, thereby enabling the maintenance of a focal point on actors exhibiting a consistent presence in the field. This process yielded a map comprising 541 nodes, representing institutions, interconnected by 4,154 edges. For the international collaboration network, a more expansive criterion was employed: a minimum of one document per country to encompass all producing countries cited in the extant literature. The final map of international cooperation consisted of 101 countries and 585 edges, facilitating the analysis of both major production centers and peripheral cooperation patterns.

Furthermore, a co-occurrence analysis of terms was conducted to reveal the thematic structure of the field. This analysis was predicated exclusively on the keywords provided by the authors, as these words directly reflect the conceptual content of each study. A minimum threshold of five occurrences per term was established to reduce semantic noise and focus the analysis on concepts with a substantial presence in the literature. The final co-occurrence map comprised 1,028 keywords, which were connected by 16,572 edges. All networks were analyzed as directed graphs and subsequently visualized using the Fruchterman-Reingold layout algorithm. This approach facilitated the identification of cores, peripheries, and communities based on the spatial arrangement of nodes according to their relationships. The network structural analysis was based on three key centrality metrics: weighted degree (WD), betweenness centrality (BC), and harmonic closeness centrality (HCC). WD assisted in the identification of nodes with the highest relational intensity, whether in terms of scientific collaboration or semantic integration

(Lungeanu *et al.,* 2014). BC was utilized to identify actors and concepts that function as intermediaries, thereby establishing connections between disparate components of the network (Abbasi *et al.,* 2012). Concurrently, the HCC facilitated the capacity to evaluate the proximity of nodes within potentially fragmented networks, thereby providing a robust metric of structural accessibility (Martinho, 2021). The data processing, metric calculation, and graph visualization were conducted using Gephi software after normalizing the keyword variables of the authors, the institution, and the country for all signatory authors. The maps were interpreted using a qualitative approach, with an emphasis on the relative position of the nodes, the density of relationships, and clustering patterns. In the specific case of term co-occurrence analysis, the modularity class algorithm was used to identify thematic communities, which were then interpreted as the leading conceptual areas in the field of study.

3. RESULTS

3.1. Country collaboration

The international collaboration network (101 countries; 585 edges) displays a highly centralized structure, where production and cooperation are organized around a small core and a larger set of countries with more occasional links (Figure 1). This centralization is evident first in the distribution of the WD, with a single country showing a substantially higher collaborative intensity than the others: the United States (WD = 821; BC = 335.98; HCC = 1.000) (Table 1). Within the core but distant from the aforementioned regions are England (WD = 278; BC = 302.04; HCC = 0.875), Canada (WD = 233; BC = 49.07; HCC = 0.753), and China (WD = 195; BC = 149.15; HCC = 0.819). Finally, Australia (WD = 133; BC = 46.62; HCC = 0.702) is located at a relatively distant proximity from the previously mentioned regions. In essence, this suggests that global collaboration is predominantly centered around an axis led by English-speaking countries and China, a highly integrated Asian node. In contrast, the remaining countries exhibit a less centralized network infrastructure, characterized by a more dispersed pattern of connectivity.

A regional analysis of Europe's geopolitical landscape reveals its status as a highly diverse continent, with 37 distinct countries. This diversity is further accentuated by its position as the continent with the highest total connectivity weight (WD sum = 1,337), indicating
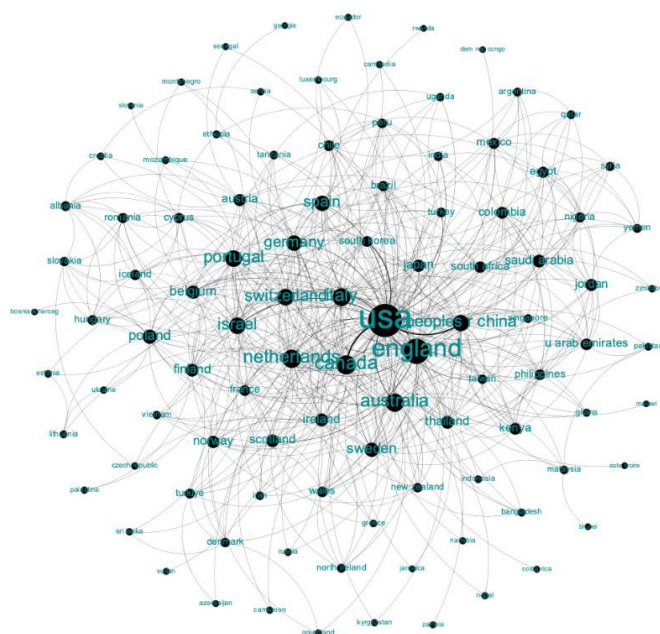

Figure 1. Map of country collaboration on family and marital status research in WoS (2001-2024).

Country	WD	Country	HCC	Country	BC
United States	821	England	0.875	Poland	90.299639
England	278	Peoples Republic of China	0.818841	Philippines	9.7
Canada	233	Switzerland	0.772727	Colombia	9.288709
Peoples Republic of China	195	Canada	0.752525	Kenya	9.273413
Australia	133	South Africa	0.75	Germany	86.105502
Netherlands	108	Netherlands	0.738095	Egypt	8.674242
Germany	91	Portugal	0.730159	Nigeria	8.666667
Italy	89	Italy	0.728682	Thailand	7.574242
Israel	83	Scotland	0.722222	Sweden	64.449784
Portugal	81	Jordan	0.720238	Iceland	6.086147
South Korea	80	Australia	0.701646	Saudi Arabia	57.641342
Spain	75	Kenya	0.701389	Spain	52.434127
Switzerland	68	Israel	0.692593	Scotland	50.188095
Sweden	60	Germany	0.684397	Lithuania	5.717857
Belgium	55	Mexico	0.68254	India	5.533333
Ireland	47	Saudi Arabia	0.676471	Pakistan	5.166667
Finland	43	Sweden	0.666667	Norway	49.630166
Scotland	42	Syria	0.666667	Canada	49.069549
Norway	41	Poland	0.65942	Australia	46.620319
Taiwan	40	Thailand	0.642857	Malaysia	43.75
Wales	33	Singapore	0.642857	Jordan	40.124242
Turkey	32	Tanzania	0.642857	Romania	4.53254
Japan	30	Pakistan	0.642857	USA	335.978968
Saudi Arabia	30	Azerbaijan	0.642857	England	302.042302
South Africa	29	Ireland	0.641844	Ireland	3.92574
Poland	28	Finland	0.637255	France	3.900153
France	27	North Ireland	0.633333	Croatia	3.45
India	27	Belgium	0.62963	Hungary	3.392857
Mexico	27	Spain	0.622222	Ethiopia	3.25
Thailand	27	Denmark	0.615385	Estonia	3.125

Table 1. Measures of WD, HCC, and BC of the leading
countries on the country collaboration map.

a substantial and pervasive network presence. However, the Americas, with a smaller number of countries (12), demonstrate a conspicuously elevated mean intensity (WD ≈ 98.08), primarily attributable to the preeminence of the United States (WD = 821) and Canada (WD = 233), which serve to augment the region's collaborative density. The Asia region is home to a considerable number of countries, with a total weight that is noteworthy in terms of its magnitude (WD sum = 740). Among these countries, China (WD = 195), Israel (WD = 83), and South Korea (WD = 80) play a pivotal role as key nodes in the network. The African continent appears to be more peripheral, comprising 19 countries (WD sum = 158). However, some evidence of regional connectivity is evident, particularly in South Africa (WD = 29;

BC = 27.46; HCC = 0.750) and, at a secondary level, Egypt (WD = 25; BC = 8.67; HCC = 0.571) and Kenya (WD = 23; BC = 9.27; HCC = 0.701). Despite being comprised of only two countries, Oceania demonstrates effective centrality primarily through Australia (WD = 133) and New Zealand (WD = 25; BC = 15.42; HCC = 0.539).

The BC offers a more precise depiction of the connections between regions and subnetworks within the map. In addition to the leadership of the United States (BC = 335.98) and England (BC = 302.04), European countries with a notably mediating role appear, such as the Netherlands (BC = 220.76; WD = 108; HCC = 0.738), Italy (BC = 185.08; WD = 89; HCC = 0.729), and Switzerland (BC = 127.11; WD = 68; HCC = 0.773). This suggests that a significant portion of transregional connectivity is routed

through Western Europe, which serves as a link between subcommunities, for example, between the English-speaking core and continental or non-European nodes. In Asia, nodes such as China (BC = 149.15) and Israel (BC = 115.19), along with Saudi Arabia (BC = 57.64), also demonstrate significant intermediation, thereby highlighting their roles as connectors between thematic or regional segments within the network. Finally, HCC places emphasis on a core that exhibits high structural accessibility and a more peripheral location. The United States (HCC = 1.000), England (HCC = 0.875), and China (HCC = 0.819) are the nodes with the highest global proximity, followed by Switzerland (HCC = 0.773) and Canada (HCC = 0.753). In essence, this phenomenon signifies that these nations do not merely engage in substantial collaborative endeavors or act as mediators in international connections; they also occupy strategic positions from which they can expeditiously access the vast network of collaborative endeavors, thereby establishing themselves as pivotal hubs for international scientific exchange within their respective domains.

3.2. Institutional collaboration

The institutional collaboration network (541 nodes; 4,154 edges) displays a clearly hierarchical structure (Figure 2). A thorough analysis reveals that the map is predominantly characterized by the presence of US universities, which exhibit a marked dominance in both the strength of collaboration and the structural connections between subnetworks. European, Canadian, Australian, and Asian institutions primarily occupy positions in the core through roles of intermediation or proximity rather than through the total volume of collaboration.
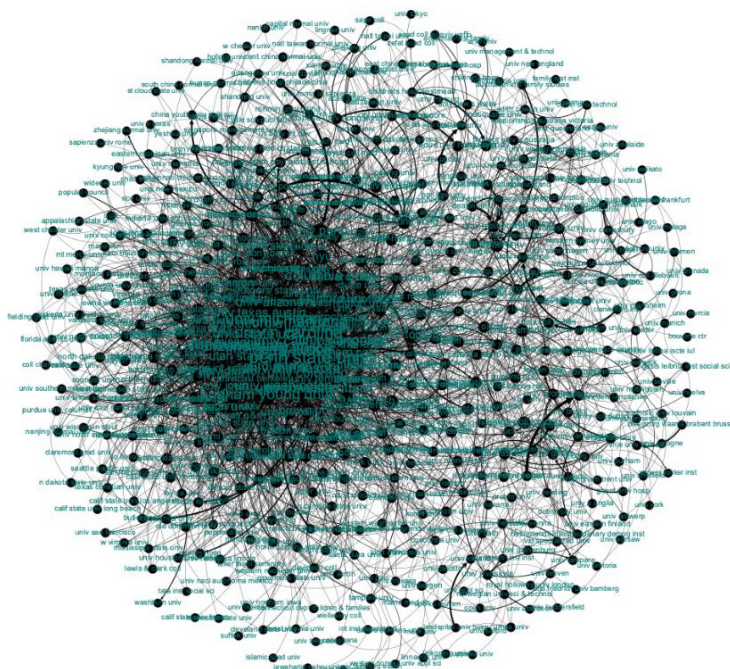

Figure 2. Map of institutional collaboration on family and marital status research in WoS (2001-2024).

From the WD perspective, the institutional core is led by Penn State University, which has the highest collaborative intensity in the network (WD = 228) (Table 2). At a second level, which persists as an element of the map's structural core, one encounters the University of North Carolina (WD = 186), Brigham Young University (WD = 177), the University of Illinois (WD = 170), and the University of Michigan (WD = 166). This finding suggests that research on family and marital status is supported by a relatively stable group of universities with a high capacity for co-authorship aggregation. Surrounding this core are other institutions

with high collaborative weight, such as the University of Georgia (WD = 155) and UCLA (WD = 135). Although these institutions may not lead in all dimensions of centrality, they strengthen the center's density and extend its reach to more specialized subnetworks. BC demonstrates unequivocally that certain institutions exhibit a high degree of collaboration and act as strategic conduits between disparate institutional communities. Penn State University is distinguished as the primary articulating node on the map (BC = 7510.09),

followed by the University of North Carolina (BC = 4500.31) and UCLA (BC = 3349.55). This suggests that a significant proportion of the field's global connectivity is facilitated by these institutions. This hypothesis is further substantiated by the existence of other highly intermediary institutions, including Ohio State University (BC = 3149.49), University of Minnesota (BC = 2968.60), Northwestern University (BC = 2574.86), University of Maryland (BC = 2421.60), and University of Illinois (BC = 2267.34).

Institution	WD	Institution	HCC	Institution	BC
Penn State Univ	228	Virginia Tech	0.833333	Ohio Univ	997.59858
Univ N Carolina	186	Univ Bremen	0.833333	Norwegian Univ Sci & Technol	99.772751
Brigham Young Univ	177	Univ Guelph	0.805556	Montclair State Univ	99.723436
Univ Illinois	170	Virginia Polytech Inst & State Univ	0.75	Nyu	972.954381
Univ Michigan	166	Univ Tasmania	0.75	Monash Univ	972.349518
Univ Georgia	155	Univ Cent Lancashire	0.75	Univ Vienna	97.793677
Arizona State Univ	150	Univ No Iowa	0.75	Emory Univ	965.661014
Univ Calif Los Angeles	135	Univ Montreal	0.735294	Univ Leicester	96.843987
Univ Maryland	131	Us Agcy Int Dev	0.7	Georgetown Univ	96.576257
Univ Minnesota	129	Utah State Univ	0.666667	Univ Massachusetts	954.998617
Northwestern Univ	124	Vanderbilt Univ	0.666667	Univ Sussex	94.496032
Univ Wisconsin	116	Univ Laval	0.65625	Karolinska Inst	938.271432
Columbia Univ	108	Univ N Carolina	0.653463	George Washington Univ	937.017505
Texas Tech Univ	104	Univ Wisconsin	0.645833	Univ Oxford	934.523618
Univ Colorado	102	Univ New S Wales	0.642857	Louisiana State Univ	93.61246
Univ Connecticut	100	Univ Southern Calif	0.629861	Univ So Calif	93.316494
Univ Missouri	100	Univ Utah	0.625	Sungkyunkwan Univ	93.167074
Univ Penn	100	Univ Quebec Trois Rivieres	0.625	Shanghai Normal Univ	92.400387
Florida State Univ	98	Univ Southern Denmark	0.625	Univ Manchester	914.756579
Ohio State Univ	98	Univ Michigan	0.619961	Indiana Univ Sch Med	91.910382
Univ Texas Austin	98	Penn State Univ	0.615991	Swinburne Univ Technol	9.87957
Univ Miami	93	Univ Illinois	0.607253	Miriam Hosp	9.339449
Brown Univ	92	Univ Washington	0.604167	Univ N Dakota	9.329762
Univ Arizona	92	Univ Tennessee	0.604167	Linnaeus Univ	89.804762
Univ Washington	91	Univ Virginia	0.60119	Rutgers State Univ	882.088227
Beijing Normal Univ	90	Univ Calif Los Angeles	0.587269	Univ Oslo	86.804762
Utah State Univ	88	Valdosta State Univ	0.583333	Oregon Hlth & Sci Univ	85.614891
Michigan State Univ	87	Univ Basel	0.583333	Humboldt Univ	85.476389
Auburn Univ	86	Univ Oregon	0.581761	Royal Childrens Hosp	840.348544

Table 2. Measures of WD, HCC, and BC of the leading institutions on the institution collaboration map.

Despite the predominance of leadership centers within the United States, the map underscores the presence of non-American nodes that exhibit notable transnational connectivity. Within the United Kingdom, the University

of Cambridge (BC = 1481.64) and King's College London (BC = 1288.62) function as pivotal connectors, while the University of Oxford (BC = 934.52) and UCL (BC = 604.86) constitute core components, forming nodes that

facilitate collaborative network connections. In the Australian context, La Trobe University (BC = 1523.02) and Monash University (BC = 972.35) are noteworthy intermediaries, signifying their engagement in the field through their active participation in numerous subnetworks. In East Asia, the University of Hong Kong (BC = 2045.00) functions as a pivotal bridge node, exemplifying sustained articulation with the international core that extends beyond mere productive presence. HCC enhances this understanding by indicating which institutions are in positions of high structural accessibility, meaning they have relatively short distances to the entire network. Among the core nodes, the University of North Carolina has a high proximity (HCC = 0.653), along with institutions such as the University of Wisconsin (HCC = 0.646), UCLA (HCC = 0.587), the University of Oregon (HCC = 0.582), and the University of Colorado (HCC = 0.581). The cartographic representation of the institutional core reveals a pattern of concentration, both in terms of volume and intermediation, as well as the maintenance of

structural positions that facilitate the accessibility of other actors. This phenomenon serves to reinforce the institutional core's role as the relational foundation of the field.

3.3. Co-occurrence of terms

The keyword co-occurrence network (1,028 terms; 16,572 edges) reveals a highly organized thematic field, divided into communities (modularity class) that group terms appearing together in articles (Figure 3). At the core of the map is the term "family" (WD = 1,495), which serves as a connecting hub between communities and confirms that, despite diverse topics, the field remains cohesive around a shared vocabulary (Table 3). In addition to "marriage" (WD = 817), "gender" (WD = 699), "parenting" (WD = 648), "adolescents" (WD = 659), "children" (WD = 484), "divorce" (WD = 491), and "depression" (WD = 460), the map underscores a conceptual core that links research on life stages, relationships, parenting, inequalities, and mental health. The thematic clusters are detailed in Table 4.
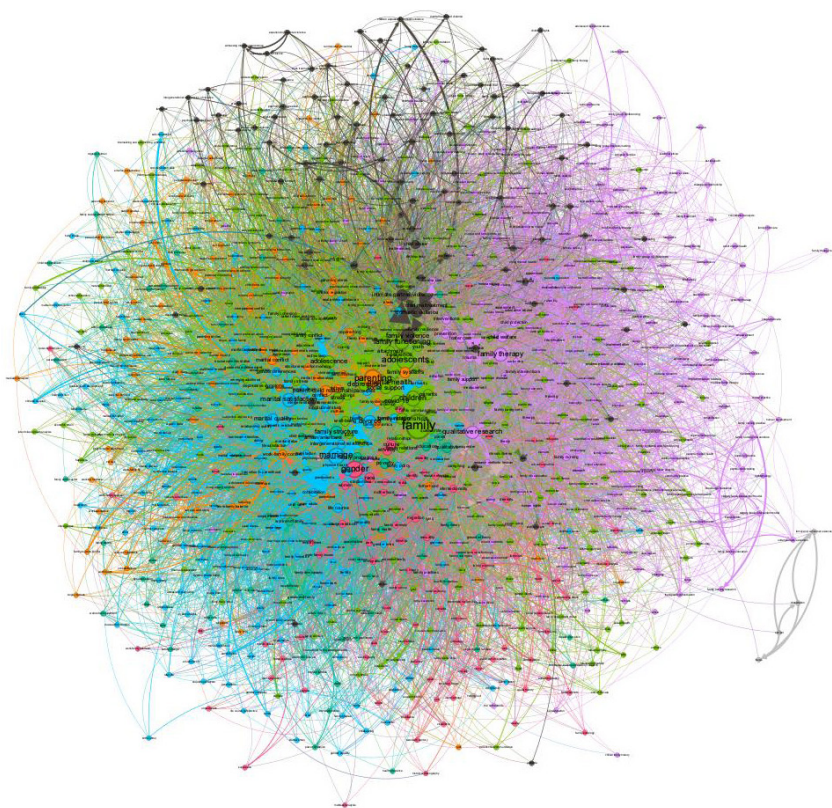

Figure 3. Map of co-occurrence of terms related to research on family and marital status in WoS (2001-2024).

Keyword	WD	Keyword	HCC	Keyword	BC
family	1,495	social justice	0.875	research	992.988955
marriage	817	ukraine	0.833333	family members	99.863678
gender	699	single mothers	0.833333	marital dissolution	99.794086
adolescents	659	work	0.8125	dyadic coping	99.186905
parenting	648	outcome research	0.8	dating violence	99.046661
divorce	491	well-being	0.791667	marital relationships	980.010407
marital satisfaction	489	work and family	0.785714	historical demography	98.185836
children	484	family	0.75976	gender equality	97.704601
adolescence	466	subjective well-being	0.75	work-family balance	97.059453
mental health	466	transitions	0.75	child relations	96.880014
depression	460	systemic family therapy	0.75	resources	96.709059
family therapy	440	social services	0.75	latinx	96.132515
family functioning	426	singapore	0.75	body mass index	96.025471
family violence	414	work-family interface	0.75	dementia	95.801945
family structure	408	social integration	0.714286	household living arrangements	95.6212
covid-19	402	gender	0.684583	psychological well-being	95.374734
marital quality	357	substance use	0.672619	externalizing	95.31456
qualitative research	345	work hours	0.666667	denmark	95.132081
social support	310	taiwan	0.666667	family health	948.002297
domestic violence	288	parenting behavior	0.666667	evidence-based practice	940.202149
intimate partner violence	284	parenting	0.662996	informant discrepancies	94.386837
race	283	adolescents	0.659626	adoption	94.313121
parent-child relationships	279	marriage	0.64922	phenomenology	94.106548
resilience	269	time use	0.648148	kinship care	933.134578
stress	263	children	0.639568	anxiety	931.001452
family relationships	259	stress	0.634259	medical family therapy	93.485572
family processes	245	mental health	0.614514	personality	93.460409
family systems	233	divorce	0.613869	privilege	93.019953
child welfare	227	family functioning	0.610393	mothers	929.606273
child maltreatment	221	adolescence	0.606183	moderated mediation	92.540599

Table 3. Measures of WD, HCC, and BC of the
primary keywords in the term co-occurrence map.

Modularity class	Community topic	Representative keywords
0	Family violence, abuse, and legal intervention	family violence, domestic violence, child maltreatment, intimate partner violence, family law
1	Child, adolescent, and family well-being and mental health	family, children, adolescents, parenting, mental health, depression, resilience
2	Academic training and disciplinary formation	advisor, dissertation, thesis, family and consumer sciences, curriculum, higher education
3	Professional practice, intervention, and methodological approaches	family therapy, interventions, qualitative research, evaluation, social work
4	Family structure, socioeconomic conditions, and life course	family structure, poverty, education, family processes, child well-being
5	LGBTQ+ identities and non-heteronormative families	gay, lesbian, bisexual, transgender, LGBTQ, queer
6	Parenting, coparenting, and family dynamics	parenting, coparenting, fatherhood, parental stress, family systems
7	Gender, culture, ethnicity, and inequality	gender, race, ethnicity, migration, intersectionality, culture
8	Marital relationships and couple dynamics	marriage, divorce, marital satisfaction, couple communication, cohabitation

Table 4. Primary thematic communities identified
in the keyword co-occurrence network (2001-2024).

Community 0 is characterized by its focus on family violence, child abuse, and violent intimacy, positioning it as one of the most densely interconnected and structurally influential areas on the map. Key terms include family violence (WD = 414), domestic violence (WD = 288), intimate partner violence (WD = 284), child maltreatment (WD = 221), and child abuse (WD = 193), along with related terms such as corporal punishment (WD = 33) and sexual abuse (WD = 57). Its internal structure reveals a continuum that links intimate partner violence with exposure and its effects on children, reinforced by the thematic proximity to "children" and "family functioning." The strongest connections to other communities are twofold: toward community 1 through mental health topics (depression, anxiety, trauma), and toward community 3 through words related to protection, welfare, and services (child welfare, foster care). These findings indicate a vital connection between risk research and intervention strategies.

Community 1 can be conceptualized as a vast network that emphasizes development, psychosocial adjustment, and mental health across the lifespan, with a particular focus on adolescence, stress, and psychological outcomes. The elevated status of this subject is substantiated by the preponderance of documented findings, including but not limited to: adolescents (WD = 659), adolescence (WD = 466), mental health (WD = 466), depression (WD = 460), anxiety (WD = 158), stress (WD = 263), resilience (WD = 269), coping (WD = 116), and social support (WD = 310). In this community, attachment (WD = 202) and family functioning (WD = 426) are considered fundamental concepts that bridge the domains of developmental psychology and family processes. Concurrently, terms such as delinquency (WD = 70) and substance use (WD = 107) emerge as outcomes linking emotional well-being with risky behaviors. A salient feature of this cluster is the predominance of the theme of COVID-19 (WD = 402), which functions as a pivotal connection to stress, mental health, and family dynamics. This finding suggests that the pandemic was not merely a marginal subject but rather a seminal thematic axis that permeated the discourse.

Community 2 groups together a set of terms related to academic training, higher education, and institutional knowledge creation in family studies, forming a metadisciplinary cluster. The focal point of this group is the concepts of advisor (WD = 23), dissertation (WD = 23), and thesis (WD = 23), in conjunction with family and consumer sciences (WD = 25), curriculum (WD = 15), pedagogy (WD = 22), and higher education (WD = 24). These terms reflect a research focus on teaching processes, academic supervision, and the training of researchers and professionals in the field. While these terms may not occupy the most central positions in this field, their cohesive grouping suggests the presence of a clearly defined thematic community. This community links empirical research on family and marital status with the institutional spaces where disciplinary knowledge is created, shared, and legitimized. The geographical distribution of this community on the map indicates a peripheral positioning relative to the primary substantive clusters. However, it exhibits a consistent connectivity with methodological groups, suggesting a persistent collaborative relationship across different methodological approaches. This underscores the significance of education and academic training as foundational elements that facilitate research development in the field.

Community 3 encompasses a focused set of applied research related to intervention, services, professional practice, and protection systems. In this community, the family is regarded as the target of evaluation, treatment, and public policy. Key terms include family therapy (WD = 440), child welfare (WD = 227), child protection (WD = 139), family support (WD = 154), foster care (WD = 197), as well as interventions (WD = 141) and evidence-based practice (WD = 62). The present community is distinguished by the employment of methodological and implementation vocabulary, including "assessment" (WD = 79), "measurement" (WD = 80), "program evaluation" (WD = 38), and "implementation" (WD = 50). Additionally, there is a notable emphasis on qualitative research (WD = 345), suggesting a harmonious integration of quantitative and qualitative methodologies. A close examination of the interconnections between the two communities reveals a primary association with community 0, characterized by the terms "violence-protection-intervention." Additionally, a secondary

association is observed with community 1, predominantly involving terms such as "mental health," "trauma," and "child adjustment."

Community 4 can be identified as the cluster focusing on family structure, socioeconomic inequality, and well-being outcomes, with a strong emphasis on family demography and social determinants. This cluster highlights aspects such as family structure (WD = 408), poverty (WD = 182), education (WD = 137), qualitative factors (WD = 193), family processes (WD = 245), and child well-being (WD = 87). Its thematic position indicates that a significant portion of the field examines family and marital status as social arrangements connected to inequality, educational paths, and material conditions. The subject also intersects with community 8 on matters pertaining to the division of labor and household economics, as well as with community 6 on subjects such as parenting and child outcomes. In summary, this cluster provides a structural perspective that complements relational (couple/parenting) and clinical (intervention/mental health) approaches.

Community 5 is characterized by a more specific yet clearly identifiable cluster that is associated with sexual diversity and LGBTQ+ families. The lexicon under scrutiny encompasses terms such as "lesbian" (WD = 78), "gay" (WD = 75), "LGBTQ" (WD = 62), "transgender" (WD = 72), along with "queer" and "coming out." Despite its relative diminution in size when compared to the primary clusters, its geographical positioning on the map demonstrates direct associations with community 8 (couple relationships, marriage, satisfaction) and community 7 (identity, stigma). This observation underscores a thematic congruence with the foundational subjects of marriage and relationships.

Community 6 is characterized as a group that focuses on parenting, coparenting, and parent-child relationships, with a close association to child development and family tensions. The primary term is "parenting" (WD = 648), followed by "parent-child relationships" (WD = 279) and "coparenting" (WD = 160), along with related concepts such as "fatherhood" (WD = 100), "fathers" (WD = 154), "marital conflict" (WD = 212), and "work-family conflict" (WD = 170). In this group, parenting is linked both to emotional and social outcomes

(e.g., emotion regulation, WD = 87) and to everyday life conditions (e.g., time and work). This finding indicates an axis where parenting and child well-being are seen as relational processes influenced by work demands, parental stress, and marital dynamics. The correlation between community 8 and other communities is particularly pronounced in the domains of "marital conflict" and "transition to parenthood." These domains intersect with the existing body of research on couples and parenting.

Community 7 focuses on vocabulary related to gender, race/ethnicity, culture, migration, and identity, and it acts as a bridge between relational and structural approaches. The most central terms include gender (WD = 699), race (WD = 283), ethnicity (WD = 195), culture (WD = 204), migration (WD = 111), intersectionality (WD = 108), and identity (WD = 86). The significant correlation between "gender" and "intersectionality" suggests a relationship between these concepts and issues of partnership (community 8), parenting (community 6), and structural inequality (community 4).

Community 8, in contrast, has been shown to form a cluster centered on couple relationships, marriage, relationship quality, and dissolution. This community has been found to have a particularly rich structure, with a high concentration of concepts related to marital dynamics. Noteworthy are the following categories: marriage (WD = 817), divorce (WD = 491), marital satisfaction (WD = 489), marital quality (WD = 357), couples (WD = 198), conflict (WD = 187), and communication (WD = 183). Other notable categories include related terms such as cohabitation (WD = 203), remarriage (WD = 80), and relationship quality (WD = 77). This community not only describes marital status but also reflects the field's shift toward relational mechanisms (communication, conflict, intimacy, negotiation) and trajectories (formation, stability, dissolution).

4. DISCUSSION

Bibliometric results indicate that research on family and marital status has become a highly integrated field. The enduring significance of concepts such as "family," "children," "parenting," "marriage," and "mental health" indicates that, despite the diversification of subjects in

recent decades, the fundamental tenets of the field remain anchored in a relational and psychosocial understanding of the family unit. This approach aligns with a broad empirical tradition that views the family as an interdependent system, where marital, parental, and caregiving dynamics directly impact the behavioral, emotional, and social adjustment of its members, especially children and adolescents (Bayer, 1982; Lou & Lin, 2012; Viana & Teixeira, 2021). From this perspective, the results indicate thematic continuity and the ongoing relevance of analytical frameworks that have proven their explanatory power over time. However, the concomitant existence of this relational core with thematic communities focused on family violence, inequality, sexual diversity, and public policy indicates a progressive expansion of the field toward normative issues. This shift corresponds with empirical studies that have documented how social transformations, changes in welfare regimes, and tensions between the state, market, and family are reshaping marital trajectories and forms of family organization (Akpan, 2020; Akpan & Ezeume, 2022). In a similar vein, groups affiliated with gender, ethnicity, and intersectionality have been engaged with research emphasizing the necessity of context-specific and culturally sensitive approaches to comprehending the diversity of family arrangements that diverge from prevailing normative models, particularly in non-Western contexts or societies undergoing transition (Viana & Teixeira, 2021).

The structure of international and institutional collaboration supports this perspective by underscoring a pronounced concentration of scientific intermediation within academic institutions in the Global North, with the United States occupying a central position in co-authorship networks. This pattern mirrors trends identified in prior bibliometric analyses of related subfields, such as family therapy, divorce, or work-family balance, where institutional and linguistic dominance affect the visibility and legitimacy of the knowledge produced (Lou & Lin, 2012; Yan *et al.,* 2025). Concurrently, the presence of European, Canadian, Australian, and Asian nodes in key positions signifies transregional flows that facilitate the exchange of comparative and contextual approaches, which are particularly salient in studies of migration, gender, and family diversity. The analysis of term co-occurrence provides a more profound understanding of how knowledge is organized and highlights distinct functional segments within the field. Communities centered on child welfare, mental health, and parenting dynamics form a strong empirical core, identified by longitudinal, relational, and risk and resilience-based approaches. This thematic focus is consistent with the extant empirical literature documenting the effects of marital conflict, parental quality, and family structure on child and adolescent development. This phenomenon aligns with research that has examined the impact of critical events, such as divorce or domestic violence (Akpan, 2020; Akpan & Ezeume, 2022). In contrast, clusters pertaining to violence, legal intervention, and social services are indicative of the field's applied focus.

The consolidation of thematic communities focused on sexual diversity, LGBTQ+ families, and gender studies signifies a major epistemological shift. These communities are not peripheral entities; rather, they sustain structural connections with relational and welfare centers, thereby demonstrating the growing integration of non-normative family arrangements into the prevailing discourse within the field. This finding is consistent with recent research indicating a shift in the field of family relationships from universal models to more inclusive approaches that consider identity and cultural diversity (Viana & Teixeira, 2021; Yan *et al.,* 2025). The identification of a metadisciplinary community focused on academic training and educational processes suggests that the field possesses an internal reflection. The presence of terms related to pedagogy, doctoral training, and higher education indicates that family studies not only generate empirical knowledge but also examine their own mechanisms of academic reproduction. This finding is consistent with earlier observations regarding the institutional strength of the field and the significance of particular theoretical and methodological frameworks in training future researchers (Bayer, 1982; Lou & Lin, 2012). However, this same centralization gives rise to concerns regarding potential epistemological uniformity, thereby underscoring the necessity to cultivate enhanced theoretical and geographical diversity in subsequent studies.

5. CONCLUSIONS AND FUTURE DIRECTIONS

This study demonstrates that research on family and marital status is a dynamic, multidimensional, and expanding field. The thematic core of this field remains stable; however, there is increasing diversification toward social, cultural, and normative issues. The correlation between thematic communities indicates a gradual integration of psychosocial and identity approaches. Subsequent studies could employ longitudinal analysis to explore these communities in greater depth, observing changes over time in research agendas and examining the contributions of underrepresented regions within collaborative networks more thoroughly. A fruitful avenue for future research would be the integration of bibliometric methods with qualitative content analysis to elucidate the evolution of theoretical and methodological frameworks within each thematic community. Finally, expanding the analysis to encompass additional databases would facilitate a comparative analysis of the observed centrality and evaluate whether the identified dynamics reflect global patterns or biases inherent in WoS indexing.

Conflict of interest

The authors declare that there are no conflicts of interest.

Contribution statement

Conceptualization, investigation: Nurlan Baigabylov, Aigul Turlybekova.

Methodology, formal analysis: Khalil Maslov, Aigul Turlybekova.

Data curation, software, formal analysis, visualization: Ainur Mussabayeva, Medet Kudabekov.

Writing-review & editing: Nurlan Baigabylov, Ainur Mussabayeva.

Statement of data consent

The relevant data generated during the development of this study have been included in the manuscript.

REFERENCES

Abbasi, A., Hossain, L., & Leydesdorff, L. (2012). Betweenness centrality as a driver of preferential attachment in the evolution of research collaboration networks. *Journal of Informetrics, 6*(3), 403-412. https://doi.org/10.1016/j.joi.2012.01.002

Akpan, I. J. (2020). Bibliometric analysis and visualization of the consequences of marital union dissolution on parents and children. *SSRN Electronic Journal.* https://doi.org/10.2139/ssrn.3698447

Akpan, I. J., & Ezeume, I. C. (2022). Four decades bibliometric analysis, science mapping, and visualization of the consequences of marital union dissolution on parents and children. *Journal of Divorce & Remarriage, 63*(1), 1-34. https://doi.org/10.1080/10502556.2021.1993009

Bayer, A. E. (1982). A bibliometric analysis of marriage and family literature. *Journal of Marriage and the Family, 44*(3), 527-538. https://doi.org/10.2307/351577

Cassinat, J. R., Whiteman, S. D., Serang, S., Dotterer, A. M., Mustillo, S. A., Maggs, J. L., & Kelly, B. C. (2021). Changes in family chaos and family relationships during the COVID-19 pandemic: Evidence from a longitudinal study. *Developmental Psychology, 57*(10), 1597-1610. https://doi.org/10.1037/dev0001217

Chung, H. (1990). Research on the marital relationship: A critical review. *Family Science Review, 3*(1), 41-64.

Islam, M. A., Khatun, M. B., & Rahman, M. H. (2025). Visualization of Scopus and WOS data (2000-2024) on forced, child, and contract marriage: A bibliometric analysis. *SN Social Sciences, 5*(9), 1-41. https://doi.org/10.1007/s43545-025-01180-z

Lou, Y.-C., & Lin, H.-F. (2012). Estimate of global research trends and performance in

family therapy in Social Science Citation Index. *Scientometrics, 90*(3), 807-823. https://doi.org/10.1007/s11192-011-0549-9

Lungeanu, A., Huang, Y., & Contractor, N. S. (2014). Understanding the assembly of interdisciplinary teams and its impact on performance. *Journal of Informetrics, 8*(1), 59-70. https://doi.org/10.1016/j.joi.2013.10.006

Martinho, V. J. P. D. (2021). Insights into circular economy indicators: Emphasizing dimensions of sustainability. *Environmental and Sustainability Indicators, 10,* Article 100119. https://doi.org/10.1016/j.indic.2021.100119

Robles, E. L., & Sarcon, L. J. (2023). The mediating effect of work commitment on the relationship between family relations and marital satisfaction of social workers. *European Journal of Education Studies, 10*(8). https://doi.org/10.46827/ejes.v10i8.4934

Usmonova, N. (2025). Uzbek marital and family relations and their socio-psychological and ethnopsychological characteristics as interpreted by Eastern thinkers. *Journal of Multidisciplinary Sciences and Innovations, 1*(2), 622-626.

Viana, L. S., & Teixeira, K. M. D. (2021). Family communication and family relations: A bibliometric and network analysis. *World Journal of Research and Review, 12*(4), 10-17. https://doi.org/10.31871/wjrr.12.4.7

Yan, Y., Zhang, X., Ye, C., Li, J., Gao, J., & Geng, Y. (2025). Evolving trends in work-family balance research: A bibliometric perspective. *Medicine, 104*(46), Article e45851. https://doi.org/10.1097/md.0000000000045851