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Exploring Women's Migration through Bibliometrics: Trends and Research Networks

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ABSTRACT

In recent decades, there has been an increase in scientific interest in women's migration, reflecting the globalisation of migration flows and increased gender sensitivity in research. The aim is to explore the mapping of the scientific field devoted to women's migration through analysis to identify key trends, thematic areas, and international scientific collaborations. The Scopus database covering the period from 1979 to 2025 is used as an empirical base. The sample includes 860 articles selected based on relevant keywords related to women's migration. Drawing on a dataset of 860 peer-reviewed articles from the Scopus database spanning 1979–2025, the analysis employs advanced bibliometric tools including VOSviewer and Bibliometrix (R package). The study examines publication dynamics, prolific authors and journals, influential countries, citation patterns, and co-occurrence networks of keywords. The results reveal six dominant thematic areas: labour migration, gender discrimination, marital migration, cultural norms, socio-economic mobility, and structural barriers. The findings reveal six dominant thematic clusters: labour migration, gender discrimination, marital migration, cultural norms, socio-economic mobility, and structural barriers. The United States (298 articles), the United Kingdom (170), and Canada (79) emerged as the most productive contributors. While research is primarily concentrated in North America and Europe, academic interest is steadily increasing in Southeast Asia, East Asia, and Latin America. This article will guide future research by providing a scientific map of studies that are at the intersection of migration and gender issues.

KEYWORDS: Women, Women's Migration, Women's Mobility, Migration Strategy, Gender, Gender Economics, Labour Economics

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Исследование миграции женщин с помощью библиометрического анализа: тенденции и научные сети

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RNJATOHHA

В последние десятилетия существенно возрос интерес научного сообщества к вопросам миграции женщин, что обусловлено как интенсификацией глобальных миграционных процессов, так и усилением гендерной проблематики в исследовательской повестке. Настоящее исследование направлено на библиометрическое картирование научного поля, посвящённого женской миграции, с целью выявления ключевых исследовательских тенденций, доминирующих тематических направлений и структур международного научного сотрудничества. Эмпирической основой послужила база данных Scopus за период 1979-2025 гг. В выборку вошли 860 рецензируемых статей, отобранных по релевантным ключевым словам, связанным с миграцией женщин. Анализ проведён с использованием современных библиометрических инструментов, включая VOSviewer и Bibliometrix (R-пакет). Исследование охватывает динамику публикационной активности, наиболее продуктивных авторов и журналы, ведущие страны, показатели цитируемости, а также сети соупотребления ключевых слов. Результаты позволили выделить шесть доминирующих тематических кластеров: трудовая миграция, гендерная дискриминация, брачная миграция, культурные нормы, социально-экономическая мобильность и институциональные барьеры. Наиболее активными странами по количеству публикаций являются США (298 статей), Великобритания (170) и Канада (79). Несмотря на доминирование стран Северной Америки и Европы, наблюдается устойчивый рост научного интереса в Юго-Восточной Азии, Восточной Азии и Латинской Америке. Данное исследование предлагает структурированный обзор научных публикаций по вопросам женской миграции, формируя базу для последующих исследований и разработки эффективных гендерночувствительных миграционных стратегий.

КЛЮЧЕВЫЕ СЛОВА: женщины, женская миграция, мобильность женщин, миграционная стратегия, гендер, гендерная экономика, экономика труда

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INTRODUCTION

In the context of globalisation and increasing population mobility, women's migration is becoming an important socio-economic and demographic phenomenon. Women are increasingly making independent decisions about moving to other regions and countries, which is related not only to economic opportunities, but also to the search for social justice, personal security and empowerment. Modern migration processes are becoming strongly gender-specific, which requires a rethink of research approaches and a reassessment of the focus of scientific work in this area. Feminisation of migration is a growing phenomenon all over the world. In the last three decades, the number of women migrating has increased from 46 million (1960) to 135 million (2020), and now the women's representation is approximately 48% in total international migration (Abel, 2022; United Nations, 2020). There is a rise in women's participation in hospitality, domestic services, and healthcare professions in many Asian and European countries, including North America (Abel, 2022). There are multiple reasons for women's migration, e.g., economic opportunity, including better salary and benefits, education and personal independence, escaping discrimination and violence, domestic abuse, harmful traditions, forced marriages and sexual violence or harassment (UN Women, 2024). Environmental changes, husbands' jobs abroad, are also the reasons for women's migration.

Migration is not an easy task for a woman. There are more challenges in migration for women than men, both during migration and in the host societies or countries. Women can face gender-based violence and exploitation throughout the migration routes or in the host countries. In the same lines, language barriers, legal status, foreign degrees, cultural barriers, limited societal acceptance, and protection could create difficulties for women during and after migration. Access to healthcare for physical and mental health could be another challenge for the women who migrate. These factors underline the need to develop a gender-sensitive migration strategy aimed at removing structural barriers and increasing the level of protection and integration of migrant women.

On the other hand, there are different benefits and opportunities for women who migrate. Women always try to support the family through their unpaid services in the kitchen and in other household matters, alongside men. Migration empowers women with financial independence and enables them to support other family members, including dependence

dents. In this way, the financial burden is divided between men and women, which can lead to poverty reduction in society. In the same vein, women migrants can fill the gap of a shortage of employees in different sectors, including hospitality, domestic services, and the healthcare industry, in the host countries. In this way, migrant women bridge the gap of social cooperation between countries, and it can also become the reason for knowledge/technology transfer and cultural exchange among the countries to build better cross-cultural connections.

So, there is a need to conduct a research study on women's migration to build migration policies for the women who migrate. This study aims to explore the mapping of the scientific field devoted to women's migration through analysis to identify key trends, thematic areas, and international scientific collaborations over time using Scopus data from 1979 to 2025.

LITERATURE REVIEW

Compared to earlier times, migrants now travel to and from other nations. Migration routes have constantly evolved and changed over time; change is constant and nothing new in and of itself (Czaika & Reinprecht, 2022). Owing to females' ability to engage in the labour market, older, non-dependent family members encourage female migration (Danzer & Dietz, 2014). Drivers of migration can alter dynamically; some may undergo quick changes, or "shocks", while others may only undergo slow changes over time. However, during a life cycle or migration, drivers may still be viewed significantly differently, even if they are slowly changing (Czaika & Reinprecht, 2022).

There may be a local component to the formation of human capital. If so, even though two women have the same degree of education, they may have fundamentally distinct human capital if they were raised in different places. Specifically, this would make it harder for women from rural areas to compete with those from urban areas in the urban marriage market, which would explain why women from rural areas married men from rural areas before moving to an urban area. Second, a decrease in the economic cost of movement may lead to a rise in marriage migration among women from rural areas if men and women from rural areas prefer their marriages to those from urban areas, or vice versa. Although the bridge had little effect on economic migration, it did boost marital migration, schooling, dowry payments, and employment in the manufacturing sector among rural women from affluent households (Amirapu et al., 2022). These findings highlight the importance of incorporating targeted migration strategies that account for localised socio-cultural preferences and structural constraints, particularly in rural contexts where marriage migration remains a dominant mobility channel for women.

Numerous studies demonstrate the impact of family structure and household size on migration trends, as well as the significant impact that families can have on migration decision-making (Meyer, 2017). Family members' (internal) migration to other rural or urban areas to work in different economic sectors to diversify risk and stabilise household income is influenced by household size. Evidence from the culture of Fiji: Fijian marriage customs also have a role in the migration of women. In Fiji, women are more likely than males to migrate, especially when it comes to long-distance migration. This implies that traditional marriage customs, in which women move to their husband's village with the assistance of strong social ties inside the mataqali, may have a greater influence on remote migration than usual metropolitan pull factors (Tegunimataka & Palacio, 2025). In Kazakhstan, the surge in international migration in recent years has been directly linked to the rise of intercultural marriages. Kazakh women adjust to their new cultures, work to protect their cultural identity, and promote harmonious relations between the two nations. Due to job mobility and migration considerations, the trend of Kazakh women marrying foreigners has dramatically increased (Otar & Mantayeva, 2025).

Furthermore, Son preference cultures in many nations are another element that contributes to women's migration. To a certain degree, people in China favour their sons above their daughters. We refer to this as "son preference culture". According to a study by Gong et al. (2025), a significant factor in Chinese female migration is people's preference for sons. "Son preference" is ingrained in China's traditional patrilocal society, where women are subservient partners and men occupy dominating roles in social and intra-household power structures. These discriminatory gender norms impede equal and sustainable development and limit women's social outcomes (Field et al., 2010; Jiang & Zhang, 2021; Krook & True, 2012). Achieving an inclusive and equal society requires gender equality. Women may escape discrimination, poverty, and conflict by migrating (Gong et al., 2025). Thus, son preference in China might trigger females to migrate.

Additionally, there is a notably favourable correlation between the subsample of women who relocate to join their families and for work. In China's coastal and eastern economic zones, where econom-

ic development is more advanced, the positive association is more noticeable. Since migration tends to be selective depending on educational level, education is another important predictor of women's migration. The promise of work attracts people with and without high levels of education to urban areas (Bernard & Bell, 2018). Numerous studies highlighted this factor that high education may be a crucial factor for the migration or mobility of women. According to the latest research, women with higher levels of education are more likely to be highly mobile and favour the twice-onward career over other inclinations (Widaryoko et al., 2025).

Rural women's empowerment might influence their migration. Rural-to-urban migration refers to the movement of people from rural to urban areas. Women's empowerment refers to the process by which women can take charge of their lives and families, acquire resource ownership, and make decisions to create new life strategies. Pakistan's rural-to-urban migration raises earnings through paid or professional labour and alters women's economic standing through participation in formal job markets (Ram et al., 2025).

Additionally, migration increases women's authority over the family and their ability to make decisions relating to the family (Ram et al., 2025). According to a study by Aziz (2014), migration has significantly altered women's lives and is strongly associated with their socioeconomic empowerment. When men move outside the home, women's status shifts, giving them more influence over patriarchal society, but after moving to an urban area, things shift. Following their relocation, the women also take part in income-generating activities. As their finances increase, their social standing within the family also shifts, giving them the ability to make decisions about the family. The family's independence also contributes to their good social standing outside the house.

Similarly, people's economic standing changes as a result of migration since it gives them access to new economic opportunities, which also helps them rise in society. The process of women becoming resource owners, better able to manage their lives, their children and families, and able to make decisions to adopt improved ways of life is known as women's empowerment. However, women's access to and availability of education, skill development, capacity building, and equality-based authorised and operational frameworks are also critical to women's empowerment (Ram et al., 2025).

The same labour rights and social safeguards that are available to workers in other sectors are not available to women migrants who are concentrated in low-wage, highly gendered industries (such as domestic work and clothing manufacturing). Women are particularly politically disenfranchised because they have fewer migration pathways, are more likely to use recruiters, and migrate through minor-skilled temporary employee arrangements or undocumented networks as a result of systematic and entrenched disparities, gender discrimination in their home countries' labor markets, and restraining immigration controls (Hennebry et al., 2017).

Gender discrimination is a non-economic factor influencing female migration. Even though hundreds of millions of women around the world would be willing to leave their countries and start a new life elsewhere, many of them may never do so for personal, financial, and/or other reasons, some of which may be related to gender discrimination (Esipova et al., 2011). Except in extremely impoverished (sub-Saharan African) nations, reported gender discrimination appears not to affect subsequent migration behaviour, despite being a powerful and extremely robust incentive to migrate. Put another way, women are more inclined to emigrate and, as a result, the potential for female emigration increases when they feel that they are not being treated with dignity and esteem (Ruyssen & Salomone, 2018).

There are two sides to the feminisation of migration. One benefit of migrating is that it gives highly educated young women the opportunity to become more self-aware, achieve a better quality of life, establish a career, and demonstrate their citizenship. Even so, there are specific issues related to the undervaluation of the skills and qualities they acguired in their home country. Countries from which women migrate suffer from this kind of migration since they lose not just highly qualified professionals but also their ability to procreate (Nuruly et al., 2021). It is another constructive side of women's migration that women migrants have become important contributors to the economy. Women, both skilled and unskilled, are frequently the family's main migrants, either helping the entire household migrate or, in other situations, abandoning the family (Bastia & Piper, 2019). Lanati et al. (2023) examine internal migration in Malawi using a typical gravity model. Their results show that the number of immigrants and foreign aid to the destination have a positive relationship, but there is no counterbalancing push-factor effect in the origin location.

Based on the above, the issue of women's migration has been widely covered in the scientific literature in the context of global migration flows, gender transformations and the changing role of women in the economy and society. Modern research emphasises that women's migration is determined by both economic and socio-cultural factors, as well as environmental and political circumstances (conflicts, natural disasters, violence). Danzer and Dietz (2014), Meyer (2017), and Amirapu et al. (2022) point to structural differences in migration motivation: from the search for economic opportunities to marriage unions and relocation after spouses. The issues of women's economic and social emancipation are covered in detail in the studies of Ram et al. (2025), Aziz (2014), where it is noted that migration contributes to the strengthening of economic status. Along with this, barriers are also identified in the literature: limited access to legal migration channels, segregation by type of employment, vulnerability to violence and discrimination (Ruyssen & Salomone, 2018; Hennebry et al., 2017). Thus, the analysis of existing studies allows us to identify the key factors influencing the migration of women.

However, despite the diversity of approaches, there is no single map of the scientific field reflecting the evolution of research trends, interdisciplinary ties and international cooperation in this field. The purpose of this study is to conduct a comprehensive bibliometric analysis of scientific publications on the topic of women's migration for the period 1979-2025 in order to identify key research areas, the dynamics of publication activity, leading authors and countries, as well as mapping scientific networks and thematic clusters reflecting the development of this field of knowledge.

METHODOLOGY

The plan of this research work is based on the mapping proposed by Aria and Cuccurullo (2017), which was later improved by Secinaro et al. (2020). The clarity of the intellectual structure is important for the smooth conduct of research. In the present study, the research approach of bibliometric analysis includes five stages: research design, data collection, data analysis, data display and interpretation of the results (Zupic & Cater, 2015). To increase the transparency of the methodological process, a PRISMA flow chart was used to show the various steps in the research design.

Figure 1, presented below, shows the main steps of the PRISMA model, where the first step is to define the research design.

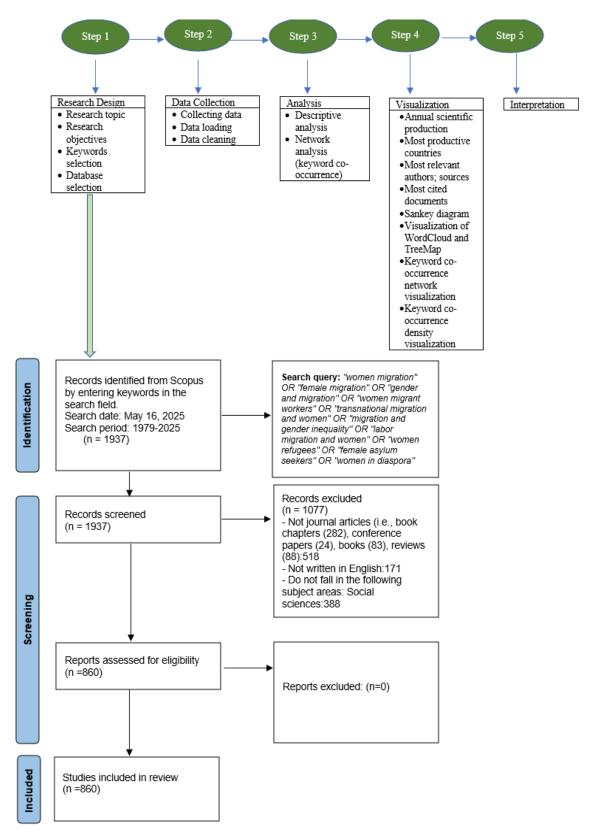


Figure 1. Research design

The next step in the research process was choosing keywords. Previous research papers suggested that the method of selecting specific search terms is based on the main research requirements or the purpose of the study (Donthu et al., 2021). Therefore, following terms like 'women migration' OR 'female migration' OR 'gender and migration' OR 'women migrant workers' OR 'transnational migration and women' OR 'migration and gender inequality' OR 'labor migration and women' OR 'women refugees' OR 'female asylum seekers' OR 'women in diaspora' were chosen as the primary keywords to search in the Scopus database. The logical operator was inserted between the main keywords in the search field of the Scopus database regarding article title, abstract, and keywords. The Scopus database is considered one of the most popular and reliable databases. Scopus database has several advantages over other databases, such as extensive indexing, citation tracking, and bibliometric analysis tools that promote effective research (Van Raan, 2014). This provides especially convenient access to bibliometric indicators that facilitate the practical analysis of thematic trends in recent research papers.

The second step in the PRISMA model provides the details regarding data collection. In the present study, the data were collected from 1937 to May 16, 2025, to explore the documents relating to "women in migration". It is pertinent to mention here that this research work focuses on original articles in peer-reviewed journals. For this reason, the other material, such as book chapters (282), review articles (88), books (83), and conference articles (24), was excluded. So, a total of 991 articles were selected, written only in the field of social sciences. Moreover, 131 non-published articles in English were not taken into account, and finally, a total of 860 publications were selected, meeting the criteria for inclusion in the study. After the data cleaning process, all data fields were exported from the Scopus database in CSV format.

The third step in the PRISMA model provides the details regarding data analysis. For the analysis of data, two different platforms were used: Biblioshiny (Aria & Cuccurullo, 2017) and VOSviewer (Van Eck & Waltman, 2017). Biblioshiny is effective for conducting various descriptive analyses, and VOSviewer is helpful for network analysis. Biblioshiny can calculate general statistics of research work, such as evolution over the years, contributions by countries, journals, and authors. It is also helpful to show the relationship between different objects through a three-field plot (Phoong et

al., 2022; Van Eck & Waltman, 2017). With the help of the Biblioshiny program, the bibliographic data can be easily analysed, and the results of the analysis can be generated in tables or various graphical forms (Singh & Bashar, 2021). While VOSviewer allows us to determine the network connection between keywords, authors or countries.

The fourth step in the PRISMA model provides the details regarding descriptive statistics applied to the data. Bibliometric analysis is a statistical method that facilitates the quantitative examination of data found in scholarly publications (Benckendorff & Zehrer, 2013). This analysis is employed to identify the most prolific and significant journals, authors, countries, and universities (Tepe et al., 2021). In the fourth step, various descriptive analyses were performed. In this research paper, different trends were identified in the number of publications over the years, active authors and countries, the most cited works and journals that have published the most articles. In addition, with the help of Biblioshiny visualisation, a TreeMap is created to identify the most frequently occurring topics in the research papers relating to women's migration.

RESULTS

The empirical results were generated after the analysis on Biblioshiny and VOSviewer tools in the form of different visualisations and tables. This section includes the trends of annual scientific production, statistics of the most productive authors, countries and research journals. TreeMap analysis is also included in the findings sections to show the most repeated words/themes in the literature on women's migration.

Figure 2 shows the development trend by year for 860 selected articles from the Scopus database.

The line in the diagram shows that more significant papers were published on women's migration between 1979 and 2025, which shows an overall positive trend, despite the low rates in some of the years. A significant increase in the number of publications over the last decade indicates the relevance and importance of this topic in the current era. It is also noticed that the most productive year in terms of the number of publications was 2023. This type of analysis shows that the topic of women in migration has recently aroused considerable interest among researchers.

Figure 3 shows the map chart regarding the research contributions of different countries in women's migration.

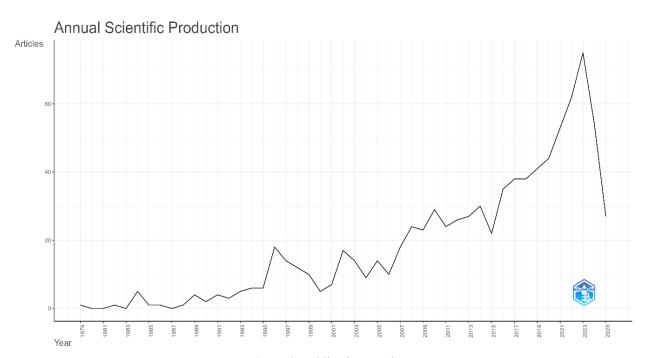


Figure 2. Publication trends

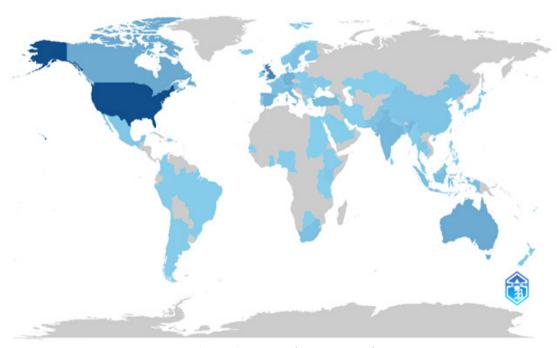


Figure 3. Most relevant countries

The darkness and brightness of the blue colour show the most and least contributions of the countries on the map. The USA was found to be the most significant country in terms of producing more research articles on women's migration, with 298 articles, followed by the UK with 170 articles, Can-

ada with 79 articles, and Australia with 78 articles. Further quantitative information behind this chart is available in Table 1.

Table 1 shows the top 10 countries where the most of the articles were produced in the field of women's migration. Scholars mostly from Western

countries, as well as other states like India, Turkey, and Indonesia, have contributed a considerable number of research articles in this field. This demonstrates the growing interest in the research topic within different nations.

Table 1. The number of research papers per country

Country	Number of articles
USA	298
UK	170
Canada	79
Australia	78
Germany	60
Spain	60
Italy	51
India	47
Turkey	36
Indonesia	33

Note: compiled based on the Scopus database

The authors who have written and published more articles in this field are Freedman J. (6 arti-

cles), Piper N. (5 articles), followed by Cvhajner M., Hofmann, Saksena J., and Yeoh BSA, each of whom has published four articles. The top researchers in this field are Freedman J. from the University of Paris, Piper N. from the Australian National University, and Cvajner M. from the University of Trento in Italy. Figure 4 shows the top 10 authors who played a significant role in this field.

These journals account for 219 of the 860 articles, representing 25% of the total publications in this field. The Women's Studies International Forum stands out as the leading contributor in this research area, having 23 articles in this field. This journal is followed by other leading journals such as Asian and Pacific Migration Journal and International Migration, each of which has published 19 articles. Other journals, including the *International Migration Review and the Journal of ethnic and Migration Studies*, are also notable for their publication count. Table 2 presents the top 20 journals that have significantly contributed to research on women in migration, as determined by the total number of articles published in Scopus.

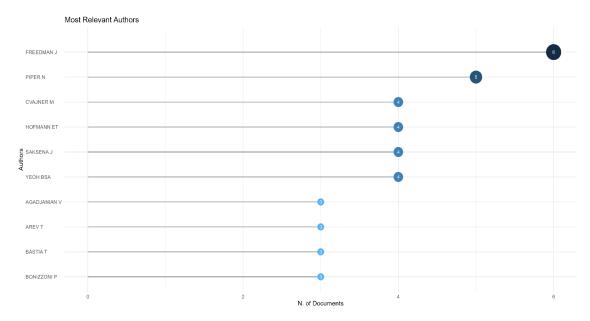


Figure 4. Most productive authors

Table 2. Most productive journals

No.	Source	Articles
1	Women's Studies International Forum	23
2	Asian and Pacific Migration Journal	19
3	International migration	19
4	International Migration Review	18

5	Journal of ethnic and migration studies	18
6	Gender, place and culture	13
7	Journal of immigrant and refugee studies	12
8	Journal of international migration and integration	12
9	International journal of refugee law	11
10	Journal of Refugee Studies	10
11	Population, space and place	8
12	Refuge	8
13	Geoforum	7
14	Migration studies	7
15	American journal of physical anthropology	6
16	Demography	6
17	Journal of international women's studies	6
18	Social science and medicine	6
19	Annals of the american academy of political and social science	5
20	Asia Pacific viewpoint	5

Note: compiled based on the Scopus database

The analysis of the most cited publications makes it possible to identify the key works that had the most significant impact on the formation of scientific discourse in the field of women's migration. The high citation rate indicates not only the relevance of the topics covered, but also the methodological novelty or theoretical significance of these

studies. These articles often set the direction for further scientific research, form the research agenda, and are used to formulate policy recommendations in the field of migration strategy and gender policy. Table 3 presents data on the most frequently cited works worldwide.

Table 3. Top-cited research articles

Title of the paper	Total citations
Towards a new map of European migration	568
Birds of Passage are also Women	538
Change in care regimes and female migration: the 'care drain' in the Mediterranean	506
Family-related migration: a critical review of European Studies	396
Queer Intersections: Sexuality and Gender in Migration Studies	345
On the Auspices of Female Migration from Mexico to the United States	274
The changing political economy of sex in South Africa: the significance of unemployment and inequalities to the scale of the AIDS pandemic	252
Engendering Migrant Networks: The Case of Mexican Migration	247
When the Light of the Home is Abroad: Unskilled Female Migration and the Filipino Family	225
Contesting the margins of modernity: women, migration, and consumption in Thailand	217

Note: compiled based on the Scopus database

By identifying these highly cited articles, researchers can evaluate the importance of a subject within the academic community. The article at the top of the list received 568 citations, whereas the tenth article garnered 217 citations. The high citation

indicates the fundamental contribution of the authors to the development of key theoretical concepts such as "women's migration", "care drain", "intersectionality", as well as the novelty of empirical data used in research. The article "Towards a New

SOCIAL POLICY AND QUALITY OF LIFE

Map of European Migration" became the leader in the number of citations, with 568 citations, which suggests a rethinking of spatial and gender aspects of migration in the European context. The second and third places were taken by works on the gender specifics of labour migration and the transformation of care regimes. These indicators mean that the research topic is of great interest among researchers. By exploring the connections between primary keywords (or topics), countries, and researchers, valuable insights can be uncovered. The Sankey diagram in Figure 5 presents an analysis of three areas within the literature concerning women in migration.

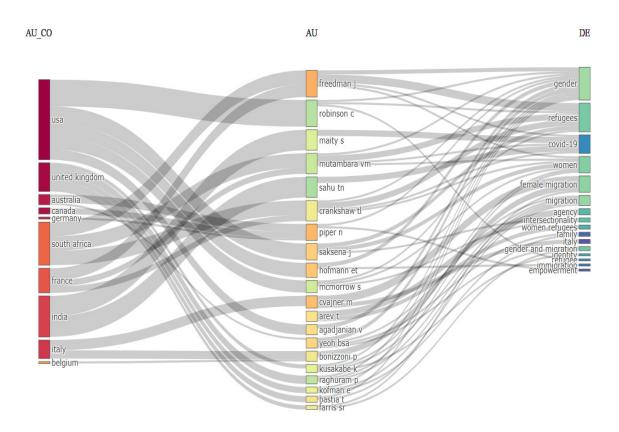


Figure 5. Three-field plot analysis

This diagram highlights the most significant links between the countries of the authors' affiliations (on the left), the authors themselves (in the centre), and the keywords (on the right). The study emphasises the most prominent keywords used by authors and key countries in this research area. According to Figure 5, the most explored topics in this research field include "gender", "refugees", "COVID-19", "women", "female migration", "migration", "intersectionality", "women refugees", "gender and migration", and "identity". The Sankey

chart reveals that most articles on this subject were written by authors from the USA, followed by those from the UK, Australia, and Canada, which is consistent with the findings in Figure 3 and Table 1.

The word Tree-Map is a technique for displaying the most frequently occurring terms in the collected data (Nailah & Rusydiana, 2020). Tree-Map visualisation in Figure 6 explains the words commonly found in the dataset of articles examined in the field of women's migration.

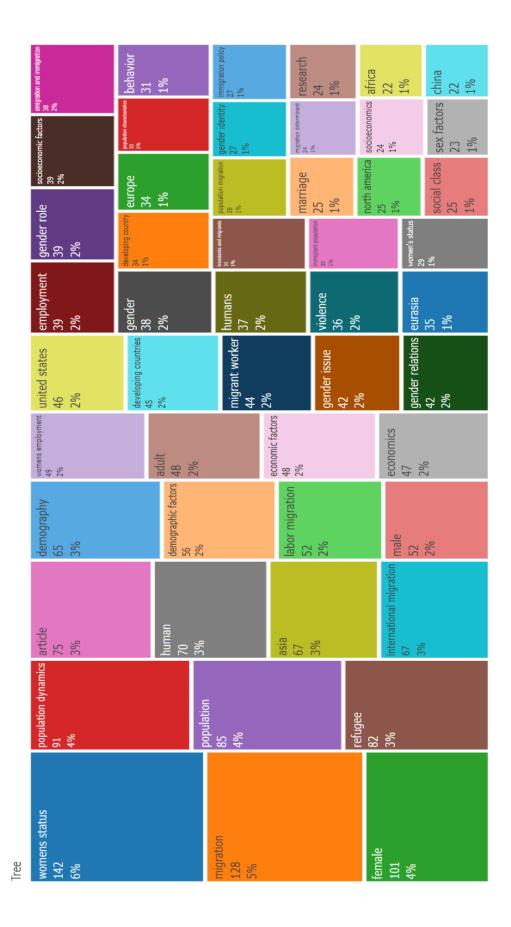


Figure 6. Tree Map analysis

The words "women's status", "migration", "female" and "population dynamics" are the most repetitive words with 142 times (6%), 128 times (5%), 101 times (4%) and 91 times (4%), respectively, which indicates the interest field of scholars. Moreover, words such as "population" 85 times (4%) and "refugee" 82 times (3%) were repeated in the area of research topic. The frequency of the appearance of terms such as "refugee" and "human rights" indicates a shift in scientific focus to the problems of protecting the rights of migrant women, their legal status and social vulnerability. In addition, the pres-

ence of keywords such as "female employment" and "intersectionality" reflects the researchers' desire to take into account the complex relationship between gender, economic status, cultural norms, and structural barriers. Thus, TreeMap not only displays the dominant concepts but also allows us to assess the thematic diversity and priorities of academic discourse on women's migration.

The keyword co-occurrence network shown in Figure 7 (created using VOSviewer) demonstrates how often specific keywords appeared in the 860 analyzed articles.

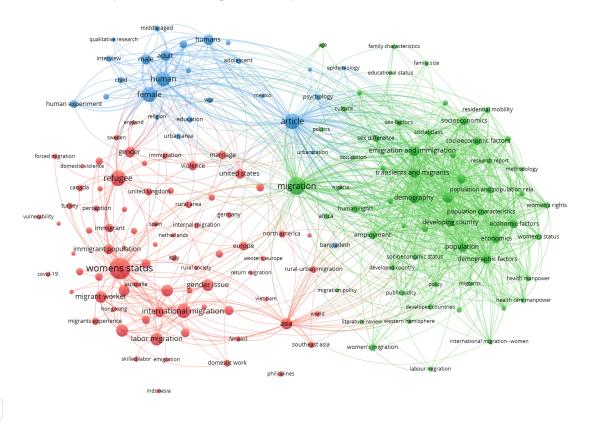


Figure 7. Network visualisation of the co-occurrence of keyword analysis

This visualisation method allows for easy identification of trending topics within a research area by examining the relationships between frequently used keywords (Gao et al., 2021). To analyse keyword co-occurrence, we set a minimum threshold of seven occurrences for each keyword. This resulted in a network of 161 keywords meeting the criteria, out of a total of 1541 keywords in the database (excluding non-index keywords). In the co-occurrence network, the frequency with which a keyword appears in the articles is indicated by the size of its corresponding node. The network is organised into three distinct clusters of keywords,

each distinguished by a unique colour, representing groupings of related topics across the articles (Gao et al., 2021). This network visualisation underscores significant topics (depicted as nodes) and their interconnections (represented by lines) (Echchakoui, 2020). The co-occurrence frequency between two terms illustrates the strength of their relationship; terms with higher co-occurrence indices are situated closer together, whereas those with lower indices are more dispersed. A detailed analysis of the three clusters presented in the network in Figure 7 is discussed.

VOSviewer

Cluster 1 (Red) is the largest cluster of keyword co-occurrence network analysis and comprises 76 key terms, with "women's status" at the forefront, followed by "refugee" and "international migration". Other main terms encompass "labour migration", "gender issue", "migrant worker", "women's employment" and "violence". The main terms in this cluster include research on economic issues related to the research topic. It determines the relationship of issues of female rank with factors such as labour migration, gender questions, and international migration. In addition, it is possible to find out in which region of the world the problem of migration is most often discussed, so that the names of different countries also have priority. For example, if we look at the connecting words of the word Asia, we often find that the problem of labour migration in this region is more analysed.

Cluster 2 (Green): The second leading group comprises 59 key terms, with "migration" as the leading keyword, followed by "population" and "demography", which show the highest frequency of co-occurrence. This group also encompasses phrases such as "transients and migrants", "emigration and immigration", "socioeconomic factors", "gender economics", "demographic factors" and

"health manpower". The composition of this cluster indicates that research in this area is primarily focused on social and health issues. The priority of such terms as "culture", "developing country", "human rights" also indicates that issues related to migration in different countries have been addressed comprehensively, with diverse aspects such as demography, culture, human rights, education, and health care.

Cluster 3 (Blue): The third major grouping consists of 26 keywords, which are led by the term "female" followed by "human", "male" and "adult". The names of the different age periods of a person are one of the main pillars of the research topic. The predominance of words such as "article", "qualitative research" and "interview" means that the topic of migrant women has been thoroughly studied. During the review of the general literature, the relevance of such topics as education, religion, urbanisation and psychology was noted. Therefore, the problems of migrant women across various ages and socio-economic backgrounds have become a priority in this cluster.

Figure 8 illustrates a density visualisation of a network consisting of 161 keywords or topics, corresponding to the network depicted in Figure 7.

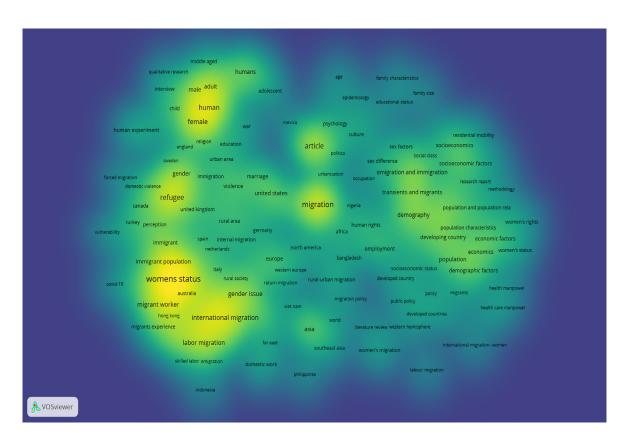


Figure 8. Density visualisation of keyword co-occurrence

This visualisation highlights the densest areas within the network using dark yellow, facilitating the quick identification of key topics in research on women's migration. As shown in Figure 7, the central area of the network is the most significant, covering topics such as "women's status," "refugee", "labour migration", "female", "international migration", and various country names. In contrast, areas shaded in lighter yellow represent topics that have been less explored in the literature, such as "employment", "domestic work" and "family characteristics" among others. The data in the figure indicates that different aspects of socio-economic issues are particularly prominent among the main subjects discussed in the analysed articles.

CONCLUSION

This bibliometric analysis of the topic of women in migration revealed that extensive work has been written in databases related to the topic of the study, especially in recent years, resulting in an increase in the number of studies. The use of common keywords allowed for a complex analysis that reveals important issues, including social and economic issues, as well as challenges related to migrant women, women's migration in different countries, the place of women in international migration, and research on the subject. The study also examined the geographical distribution of the scientific production and determined the contribution of different countries. As for the results of the study, the United States, Canada and Australia were the countries that wrote the most work on the topic. In addition to other countries, states such as India, China, and Turkey have a high share. This international partnership highlights the significance of this area of study.

Furthermore, the article pinpointed yearly scientific findings to evaluate the evolution of academic interest in the research topic over time. As a result, the increase in the number of articles published annually implies the need for a deeper study of the problem of migrant women. By analysing the most common words and the relationship between keywords, we found out which issues related to the topic of research were most studied by authors. In general, researchers have studied and explored various areas related to this subject, such as socio-economic questions, education, healthcare, and labour migration. This reflects a steady and growing interest in a deeper understanding of various questions related to women in migration.

AUTHOR CONTRIBUTIONS

Conceptualization and theory: RBL; research design: RBL; data collection: RBL; analysis and interpretation: RBL; writing draft preparation: RBL; supervision: RBL; correction of article: RBL; proofread and final approval of article: RBL. All authors have read and agreed to the published version of the manuscript.

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