

The 11 Years Bibliometric Analysis of Syrian Migration

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Abstract. The Syrian refugee crisis has sparked the most significant migration flows to countries bordering Syria and Europe since the Second World War. This process has been discussed in all aspects of academia, and severe literature has emerged. This study aims to analyze the academic literature on the Syrian migration that started with the Syrian Civil War in 2011 and to reveal the intensified research trends by co-citation analysis, the method used for bibliometric analyses. Co-citation bibliometric analysis through the Citespace software; enables us to analyze which subjects the studies are clustered thematically, the publications that connect these clusters, and which publications represent these clusters best. The study covers the articles on Syrian migration in the SSCI database between 2011 and 2021. In the study, different interdisciplinary study trends have been clustered throughout the Syrian migration.

Keywords: *Syria, Syrians, refugee, migration, Citespace, bibliometric analysis*

Introduction

Since March 2011, due to the civil war, millions of Syrians have had to migrate to start a new life. 6.6 million Syrian refugees have left the country, and 6.7 million have been internally displaced (UNHCR 2022). During this period, the number of people needing humanitarian aid exceeded 14 million. Türkiye, Lebanon, Jordan, Iraq, and Egypt are host to millions of displaced people as their border neighbors. However, the Syrian refugees insist on following migration routes to migrate to Europe, even at the cost of their lives.

The influx of migration has made it necessary for the border countries to fight against irregular migration and the humanitarian aid process for those who currently take refuge in these countries. With its open-door policy, Türkiye has taken on the burden of the humanitarian crisis by accepting a large Syrian population compared to its other border neighbors. The number of Syrians under temporary protection status in Türkiye has reached 3,7 million (Goc idaresi 2022). It is known

that the number of Syrians in Lebanon, which has a population of approximately 7 million, exceeds 1.5 million (UNHCR 2022a). Jordan follows Lebanon with over 760,000 Syrian refugees (UNHCR 2022b).

The academic interest in the Syrian refugee crisis was primarily focused on the management of the migration influx by the border countries. As the humanitarian crisis increased, attention shifted to the problem of defining Syrians under the names of refugees/asylum seekers/temporary protection, which remains legally uncertain. Thus, the decisions and practices of the countries against the mass influx changed form in the process. Türkiye initially implemented an “open door” policy and provided “temporary protection” to the Syrian Arab Republic citizens (Aras and Mencutek 2015). The temporary protection status for Syrians has excluded them from the status of refugees or asylum seekers. At first, Syrians under temporary protection status were placed in temporary accommodation, but with the prolongation of the process, migration spread to cities. Türkiye has acted with a government strategy that allows Syrians to directly benefit from services such as education and health beyond providing legal infrastructure and humanitarian aid. In other border countries, the migration process was managed differently. Lebanon has not developed a specific government strategy (Chaaban et al., 2013). On the other hand, Jordan designed the camp system as a barrier for Syrians from settling in cities and joining the labor force (Turner, 2015). However, as the length of stay in the host countries and the scenarios of returning or sending to a third country decreased, the resettlement processes in the host countries started. Türkiye preferred a settlement system spreading to the city rather than a camp system. As of August 2019, there are approximately 620,000 Syrian households in Türkiye, with an average family size of 5.8 (Erdoğan 2020). This situation has made it compulsory to share the burden not only in border countries but also by the other countries.

In 2016, the New York Declaration for Refugees and Migrants, accepted unanimously by 193 countries at the United Nations (UN) General Assembly, became a global voice for the fair sharing of the migration burden (UN 2016). Thus, social cohesion and integration processes started for millions of Syrian refugees who could not return to their country. The main research question of academic studies after 2016 is what will be the answer to the problem of migration in the long run. The majority of solution proposals have developed on the implementation of social integration policies. The topics that will increase social integration, especially education and labor force participation, have guided the literature, and field

experiences originating from the funds given by international organizations have formed the axis of discussion after 2016. Good governance and capacity-building practices of international organizations in border countries have guided the migration management of countries shouldering the humanitarian burden, and the academic studies focused on these practices have increased. The purpose of these practices, which impact the management of migration processes at national, institutional, and local levels, is to reduce the pressure on the city and integrate the Syrians with the local community. For this reason, the funds allocated to local governments have been increased, and local integration has taken an essential place in the literature.

This study aims to analyze the academic literature on the Syrian migration that started with the Syrian Civil War in 2011 and to reveal the intensified research trends by co-citation analysis, the method used for bibliometric analyses. Co-citation bibliometric analysis through the Citespace software; enables us to analyze which subjects the studies are clustered thematically, the publications that connect these clusters, and which publications represent these clusters best. The study covers the articles on Syrian migration in the SSCI database between 2011 and 2021. In the study, different interdisciplinary study trends have been clustered throughout the Syrian migration. Six clusters form the main framework of this study: Temporary Protection, Governance Strategy, Labor Markets, Türkiye, Syrian Refugee Student, and Connected Migrant. Each cluster was examined within itself, and the breaking points in the literature were determined by following the intellectual turning points.

Methodology

Nowadays, bibliometric analysis is used in almost all fields of academic research. Bibliometrics (sometimes called scientometrics) is the application of quantitative analysis and statistics to a set of documents to assess research trends, identify the growth of a knowledge field, and predict future research directions (Bjork et al., 2014; Ellegaard & Wallin, 2015; Sweileh, 2017; Thomson, 2008; Torres-Pruñonosa et al., 2020; Wang et al., 2020). Bibliometric analyses can be done faster and more advanced by softwares like CiteSpace, Bibliometrix, HistCite, and Publish or Perish.

A field can be analyzed with various bibliometric methods. One of the main issues for providing a bibliometric analysis is the determination of the most

significant indicators for measuring the bibliographic material (Bonilla et al., 2015). Co-citation techniques were used in this study. Small (1973) defines co-citation as they are connected in a co-citation relationship when two documents are co-cited by a document. Co-citation analysis can be used at a publication, author, or journal scale. The clusters obtained by co-citation give an idea about the intellectual structure of the study area. Co-citation data can be used to construct maps of science, which show the relationships between disciplines, fields, specialties, and individual papers or authors intuitively, with their physical proximity and relative locations representing the strength of the relationships. The other issue is normalization procedures. These are very important to make an analysis based on citation data, making it possible to compare different groups. Normalized metrics could lend even more credibility to the whole field. Clustered works are automatically identified, based first on being highly cited in their own right and then on the frequency with which they are jointly cited- co-cited - in reference lists. The citations included in the analysis are prevented from forming scattered and difficult to interpret visualization with the specified threshold value. Others no less interesting falls below the threshold (White & McCain, 1998).

Citespace used in the study is an efficient co-citation network analysis and visualization tool for bibliometrics analysis. It proposes to explore the intellectual landscape of a knowledge domain based on network analysis and visualization. CiteSpace has some advantages compared to the other software, which visualizes knowledge fields. These can be sorted as burst detection to identify the main incipient research trends in a field of knowledge, identifying the foremost turning points and growing topics, and so forth (Torres-Pruñonosa et al. 2020).

Data

SSCI (Social Science Citation Index), one of the most reputed social sciences indices, was preferred in the study. An advanced search method was used on the Web of Science (WOS), which includes SSCI articles. The study query was created using Boolean search terms in the abstract, title, or keywords. TS= Syria* AND (TS= "migrant*" OR TS= "emigrat*" OR TS= "immigrant*" OR TS= "migrant*" OR TS= "emigrant*" OR TS= "immigrant*" OR TS= "refuge*" OR TS= "asyl*"). A combination of migrant*, migrat*, immigrant*, migrant*, emigrant*, immigrant*, refuge*, and asyl*" has been used along with Syria* for the literature. Articles in the SSCI, Arts,

and Humanities Citation Index, and Science Citation Index Expanded (SCI-Expanded) were the subject of the study.

The period is between January 1, 2011, and December 31, 2021, for the study. No language restrictions were applied. WOS thematizes the studies according to their fields. In the thematic content, especially health-related fields, was excluded because they were prominent in volume and affected the scope of the study. In addition, non-research-related fields such as biodiversity, zoology, geology, plant sciences, environmental sciences, space sciences, and marine sciences were also excluded from the study. In this way, 1836 articles were the subject of the study, and the results obtained on the inquiry page of WOS were analyzed around selected themes.

Table 1 displays the distribution of articles by research area. According to the top 10 research areas in which the articles are included, the fields of demography, political science, and ethnic studies are primarily included. Academic interest in these fields has increased due to reasons such as the Syrian migration crisis causing changes in the population and sociological structure in the host countries and the states having to revise their policies on immigrants or produce new policies.

Table 1 Distribution by research areas

Research Areas	%	n
Demography	13.8	253
Political Science	8.2	151
Ethnic Studies	7.6	139
International Relations	7.0	129
Area Studies	6.5	119
Education Educational	6.4	117
Sociology	6.2	114
Communication	5.9	108
Social Sciences Interdisciplinary	5.2	95
Geography	4.2	77

In Table 2, according to the top 10 universities where the articles were published, that London, Oxford, and California Universities are the universities with the most articles. Koç University from Türkiye, Lebanese American University, and the University of Jordan are on this list.

Table 2 Number of articles per university

Universities	No. articles
University of London	76
University of Oxford	36
American University of Beirut	33
University of California System	30
Koç University	23
London School of Economics	23
Lebanese American University	22
University of Jordan	22
French National Centre for Scientific Research	22
University of College London	20

In Table 3, according to the top 10 journals in which the articles were published, magazines with the title of direct immigration are primarily included. Accordingly, it is seen that most studies are published in the Journal of Refugee Studies, which belongs to Oxford Academic. It is seen that Plos One, which includes a broad research area in science, engineering, medicine, and related social sciences and humanities, takes place in this list due to its acceptance of mostly multidisciplinary studies.

Table 3 Journals in which articles are published

Journals	No. articles
Journal of Refugee Studies	55
Plos One	38
International Migration	37
Journal of Ethnic and Migration	29
Journal of International Migration	29
Migration Letters	22
Journal of Immigrant Refugee	21
Refugee	20
Refugee Survey Quarterly	19
Turkish Policy Quarterly	17

Table 4 shows that the first ten countries where the articles are published are the USA, Türkiye, England, Canada, Germany, Lebanon, Netherlands, Jordan, France, and Spain. In this ranking, there is a weighted representation of developed countries. In addition, there is a relationship between the countries hosting the Syrian migration and the number of articles. Accordingly, Türkiye is the country with the most articles published after the United States.

Table 4 Countries where articles published

Countries	No. articles
USA	411
Türkiye	360
England	281
Canada	134
Germany	132
Lebanon	79
Netherlands	74
Jordan	66
France	59
Spain	53

For the analysis of the study, a selection including timeslice, term source, node type, and selection criteria were performed in Citespace (table 5). For the study to be as complete as possible, the title, abstract, author, and keywords were included in the advanced query in WOS and imported into Citespace. The selection criteria of the articles transferred to Citespace were determined according to the g-index. The "k" is a scaling factor introduced in CiteSpace to control the overall size and clarity of the resulting network. k=25 was opted to develop the most appropriate network.

TABLE 5 Parameters for the analysis

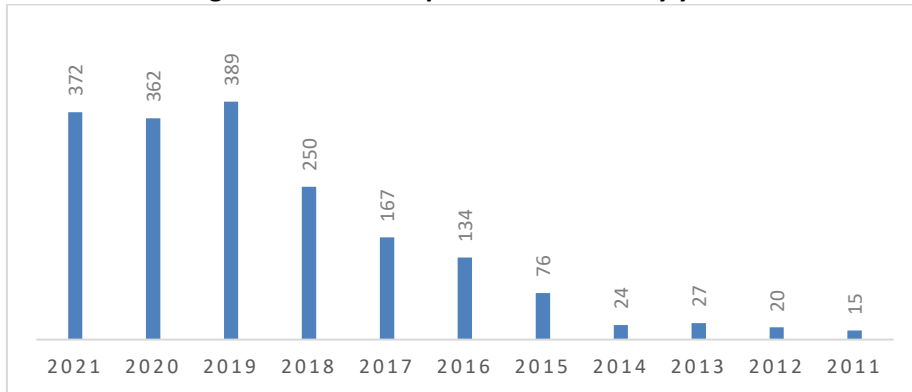
Parameter	Description	Choice
Timeslice	Timespan of the analysis	From Jan 2011 to Dec 2021
Term source	Textual fields processed	Title/abstract/author keywords/ keywords plus (id)
Node type	The type of network selected for the analysis	Reference
Selection criteria	The way to sample records to form the final networks	g-index (k=25)

Results

Many articles in various academic fields have dealt with the uncertainty that started with the migration from Syria to other countries. While there was a slight but regular increase between 2011 and 2014, there has been a severe increase since 2018 (figure 1). It is seen that the highest number of articles belongs to 2019. In the ten years included in the SSCI, an average of 183.6 articles were published, excluding

health-related fields. This section intends to describe the research areas of the field and the relationship between them through the publications cited in the articles.

Figure 1 Number of published articles by years



The major areas of the research: thematic clusters

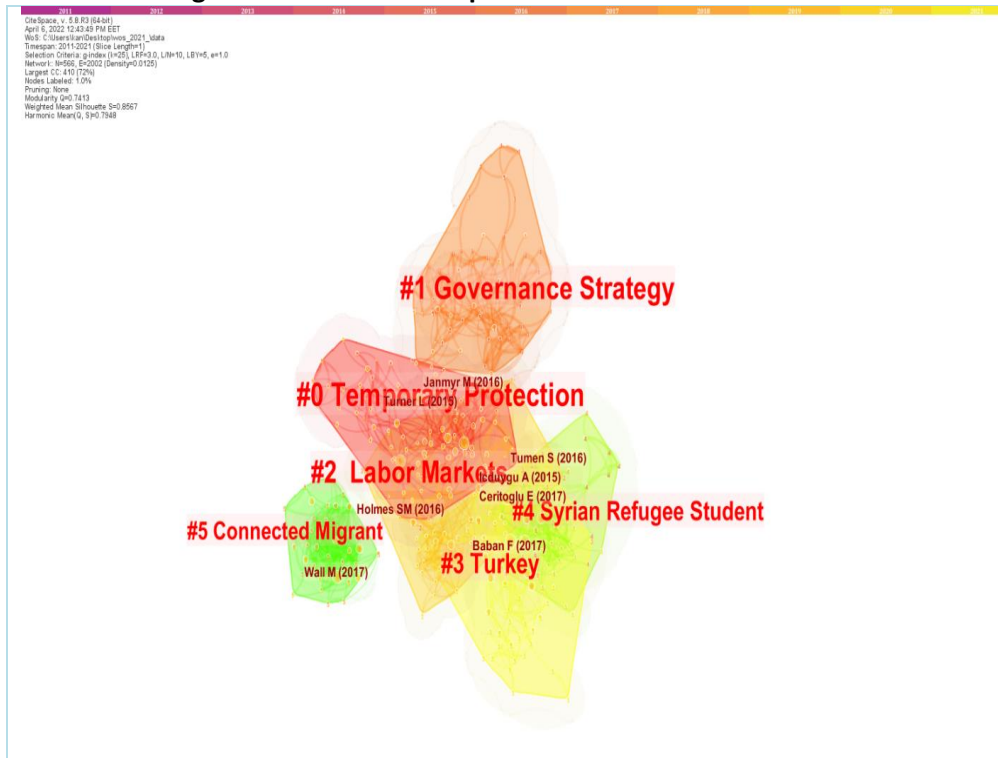
Table 6 shows the thematic clusters on Syria and migration. The first six clusters with the highest volume and silhouette values were selected in the study. Citespace extracts noun phrases from the titles, keyword lists, or abstracts of articles and gives automatic labels to them. The clusters are numbered from the largest cluster #0, the second-largest #1, and so on (table 6 and figure 2) (Chen, 2014). Each cluster is related to a line of research, and the selection criteria was created with the silhouette score. Silhouette metrics provide useful quality indicators for clustering and enhance the accountability of co-citation analysis. A silhouette score > 0.70 is considered high (Chen, 2014). If the silhouette score of all six clusters created is higher than 0.7, it indicates that the clusters have good homogeneity (table 6). On the other hand, the modularity provides a reference for the overall clarity of a given network decomposition. Like the silhouette score, the modularity score is measured in the range of 0 to 1, and it is desired to be close to 1, which indicates that the network is well structured in general. The modularity score is 0.7413. According to these results, the networks within themselves and the network containing all the clusters are in a good structure. The average year of publication of a set, on the other hand, indicates whether it generally consists of new articles or older articles (table 6) (Chen, 2014).

Table 6 Major thematic clusters

Cluster	Size	Silhouette	Mean (year)	Label
0	55	0.845	2014	Temporary Protection
1	50	0.772	2015	Governance Strategy
2	45	0.851	2016	Labor Markets
3	43	0.827	2017	Türkiye
4	40	0.778	2016	Syrian Refugee Student
5	38	0.933	2016	Connected Migrant

The first six clusters with the largest size were included in the study. Cluster labels are obtained from SSCI articles, and nodes consist of cited publications (figure 2). Therefore, cited publications may contain information sources like reports, newspaper news, or columns.

Figure 2 The network map with cluster labels and nodes



Cluster #0: temporary protection

Cluster #0 has the biggest size of publications. That means it is the largest area among the clusters (Table 6). The news of newspapers such as The Guardian, BBC News, and Economist, and reports of institutions and organizations such as The UN Refugee Agency (UNHCR) are frequently encountered here. The reason is that the migration wave started to increase in the middle of 2013, and the early information on the subject is obtained chiefly from newspaper reports and reports of institutions and organizations. This cluster focuses mainly on the early effects of increasing Syrian migration.

The Syrians in Turkey is the highest-ranked publication in this cluster, which includes comprehensive field research focused on the social acceptance and integration perspectives of Syrians and Turkish societies. In the report, Erdogan emphasizes that Syrians in Türkiye have a growing tendency to stay permanently, and integration policies should commence synchronously, at least for Syrians who will remain in Türkiye (2014).

Discussions about the legal status of Syrians have also increased as the idea has started perception that Syrians who will stay in the host countries started to dominate the host countries. Costello and Foster argue that there is a lack of consensus on the norm of non-refoulment of refugees in the context of international law (2016). İneli-Ciger examines the temporary protection status of Syrians seeking protection in Türkiye within the current legal protection regime (2014).

It is also understood that the attitude of the host countries has changed over time compared to the early migration process. In the report prepared for the Brookings Institution and International Strategic Research Organization (USAK), Dinçer et al. revealed that two years after the first convoy from Syria in 2011, while the resources of the Turkish government and society were running out, questions about the limits of Türkiye's hospitality increased (2013). Achilli's policy brief for the Migration Policy Center (MPC) describes how worrying changes in the government's attitude towards Syrian refugees in Jordan have become unsustainable since 2014 (2015).

Cluster # 1: governance strategy

The second-largest Cluster #1 mainly focuses on the governance strategies of the countries hosting the Syrian migration. There are discussions in the early stages of the migration, such as keeping refugees in camps, not being admitted to the country, or discrimination among refugees, and studies showing what policies governments follow on these problems.

The highest-ranked article in this cluster examines the relevance of Syrian refugee (non-) campsites in Lebanon and Jordan to governments' labor market goals. Turner (2015) claims that the Lebanese economy requires large numbers of non-encamped low-wage Syrian workers and that the Jordanian regime assists its Transjordanian support base by restricting poor Syrians' access to the labor market through the encampment. Janmyr (2017) discusses how Lebanon legitimizes its non-ratification of the 1951 Convention and the 1967 Protocol relating to the Status of Refugees. Chaaban et al. (2013) emphasizes that Lebanon has very few legal provisions addressing Syrian refugees' concerns; thus, the majority of them rely on the United Nations High Commissioner for Refugees for social assistance.

It is seen that countries other than Jordan and, Lebanon also try to determine a governance strategy directly or indirectly. Holmes and Castañeda (2016) focus on refugee representations in the media and political discourse in EU countries, particularly Germany. They argue that EU countries demarcate refugees as "deserving" and "undeserving" based on the "war of position" approach of Gramsci. Biehl (2015) focuses on the relationship between uncertainty and governmentality concerning displacement and its consequences in Türkiye. He claims that the uncertainty demobilizes, contains, and criminalizes asylum seekers.

The way governments keep refugees under surveillance is often discussed in conjunction with Foucault's "biopolitics". Andersson (2014) criticizes that the western world keeps refugees, whom it sees as "illegal immigrants", out of its borders. The study emphasizes the policy of serial deportation in border regions and its biopolitical process. Davies (2017), Isakjee, and Dhesi discuss how refugees are abandoned in camps inside the EU to prevent their survival with official provisions, and how the biopolitics of immigrant control has turned into a "bio/necropolitics". Sanyal (2014) criticizes the idea that the camps are places of pure biopolitics. Using case studies from the Middle East and South Asia, it examines how the refugee spaces developed and became informalized and how people recovered their agency through 'producing spaces' both physically and politically.

Cluster # 2: labor markets

In this cluster, there are quantitative studies that examine the extent to which refugees affect the labor market of host countries and mainly include economic analyses. The highest-ranked article in this cluster examines the impact of forced migration of Syrians on the labor market outcomes of Turkish natives.

Ceritoglu et al. (2017) using regional panel data revealed that Syrian refugees have an adverse effect on Turkish natives' informal employment. In another similar study, Balkan and Tumen estimated the impact of immigration in Türkiye through its reflections on consumer prices, labor markets, and housing. In the study, it was revealed that there are statistically significant informal employment losses among locals (2016). Akgündüz, Van Den Berg, and Hassink analyzed how the entry of Syrian refugee inflows into Türkiye affected firm entry and performance, and found that hosting refugees is favorable for firms (2018).

Also, other country cases analyze the direct or indirect effects of migration in Syria on the labor market of the host countries too. Bansak, Hainmueller, and Hangartner (2016), in a study they conducted in European countries, examined what kind of asylum seekers Europeans are willing to accept. As a result, it has been revealed that asylum seekers who have higher employability, have more consistent asylum testimonies and severe vulnerabilities, and who are Christian rather than Muslim received the greatest public support. Fakihi and İbrahim (2016) examined the impact of the sudden migration flow to Jordan on the labor market. According to the experimental results of the study, it revealed that there is no relationship between flow and the Jordanian labor market.

Cluster # 3: Türkiye

In this cluster, there are studies examining the Syrian migration with the cases of Türkiye. The studies focus on what kind of government policy Türkiye followed during the Syrian migration, issues Syrians face due to their legal and class status, and integration.

The highest-ranked article in this cluster discusses how Türkiye implemented an “open door” policy in the early stages of the refugee flow and how this situation turned into a policy such as “temporary protection” and “voluntary return (Aras and Mencutek, 2015). Baban, Ilcan, and Rygiel (2017) discuss the Turkish government's central legal and policy frameworks that provide Syrians with some citizenship rights while simultaneously regulating their status and situating them in a position of limbo. Memişoğlu and Ilgit (2017) focus on the security, humanitarian and socio-economic dimensions of the new legal, administrative, and institutional mechanisms that have been introduced as Türkiye is rapidly transforming into a country of immigration. Rygiel, Baban, and Ilcan (2016) examine the agreement signed between the EU and Türkiye in 2016 to jointly address the Syrian refugee crisis and the dimensions of

temporary protection status in Türkiye. Bélanger and Saraçoğlu (2020) argue that the Turkish state's temporary protection regime and the state's ad hoc leniency towards the informal use of refugee labor are compatible with the economic expectations of Turkish business and capital owners. Şimşek (2018) claims that as a result of interviews with refugees, Türkiye favors refugees who make investments and are skilled but leaves out refugees who are unskilled and do not have economic resources to invest in Türkiye from the integration processes. Akçapar and Şimşek claim that Türkiye uses the citizenship option for skilled immigrants and integration option as a tool for those who do not (2018).

Studies on the importance of integration and the role of the state and NGOs in this issue are also included in this cluster. The report prepared for Migration Policy Institute suggests that Türkiye should deal with the Syrian war independently of the Assad regime and that more cooperation with NGOs should be established by giving importance to integration policies (Icduygu 2015). Similar to the report, studies on the importance of integration and the role of the state and NGOs in this issue are also included in this cluster. Yıldız and Uzgören (2016) focus on the socio-economic expectations of refugees regarding their integration and the social acceptance of Turks through interviews with Syrian refugees in İzmir. According to the results of their field research in Sultanbeyli, Danış and Nazlı (2019) argue that there is a "faithful" alliance between the state and certain NGOs and that civil society assumes a supporting role to the state in accepting refugees. Aras and Duman (2019) focus on the resettlement management of large numbers of refugees in Türkiye and the processes of the government, local practices, and NGOs at this point and propose an integration policy as a result of their interviews with NGOs workers.

Cluster # 4: Syrian refugee students

In this cluster, there are studies on the educational status of Syrian students in the host countries after migration, the education policy of the host countries, and the role of education in integration.

The highest-ranked article in this cluster is the educational status and needs research of Syrian refugee students in public schools in Türkiye. Aydın and Kaya (2017) reveal that Syrian children generally have access to education in many schools in Istanbul, but they have language barriers and need psychological support. Taşkın and Erdemli (2018) examine the problems faced by Syrian students during the education process through interviews with teachers in Türkiye. The study claims that

teachers lack adequate support during the education process of Syrian students. Bircan and Sunata (2015) elaborate on the current education assessment, focusing on the children living in camps, as the global report on refugee education is below the critical level. The study points to many refugee children needing access to primary education and draws attention to the financial inadequacy of education program development. McCarthy (2018) argues that the interrelationship between ideology and policy shapes both the overall organization of refugee education and the operational practices of staff working to provide education to refugees. In this context, it examines how education is managed in Türkiye. Çelik and İçduygu (2019) emphasize that education is the most effective tool for refugee integration. Based on a comparative qualitative case study of refugee children in temporary education centers and public schools in Türkiye explores how these schools contribute to or hinder the school integration and adaptation of refugee children. Based on stakeholder interviews, Buckner and Cha (2018) examine the education policy for Syrian refugees in Lebanon. Accordingly, it has shown that the idea of children's rights in international conventions, despite some contradictions, when combined with foreign aid, encourages the creation of a national refugee education framework.

Cluster # 5: connected migrant

Cluster # 5 has the highest silhouette value, meaning there is a high degree of homogeneity among the publications (table 6). The studies in this cluster discuss the status and level of refugees' use of information and communication technologies. In particular, studies focus on the impact of mobile phone use on the migration journey, coping with various problems in host countries, and improving integration.

The highest-ranked article here explores the use of social media apps in overcoming refugee integration in Europe after the refugee crisis. Alencar (2018) presents a theoretical model for analyzing refugee integration through social media from interviews with refugees in the Netherlands.

Many studies examine the level of use of mobile phones, especially by migrants during their travels in this cluster. Zijlstra and Liempt (2017) explore immigrants from Greece and Türkiye within the framework of ethnographic research. The study analyzes how mobile technology affects irregular migrants' journeys. Borkert, Fisher, and Yafi (2018) want to learn about refugees' digital

capacities during and after their journey to Europe through a survey conducted in Berlin. It has been revealed that the vast majority of refugees learns the best route to Europe via Facebook, WhatsApp, and Viber. Gillespie, Osseiran, and Cheesman (2018) examine the role of smartphones in refugees' journeys. The study is based on qualitative research on refugees in France. He emphasizes that smartphones are lifelines as crucial as water and food for refugees.

Major connected and most active areas

The centrality of a node is a graph-theoretical property that quantifies the importance of the node's position in a network. Citespace uses betweenness centrality, which measures the percentage of the number of shortest paths in a network that a given node belongs to (Chen 2006). A node of high betweenness centrality usually connects two or more large groups of nodes with the node itself in-between. In other words, the node tends to connect itself up with different clusters. These publications (nodes) can be considered the intellectual turning points of the field (Chen 2005).

In the study, the publications of Aras and Mencutek (2015) and İçduygu (2015) have the highest betweenness centrality score. Both have a score of 0.08 and are in cluster #3. Aras and Mencutek (2015) discuss how Türkiye's "open door" policy turned into a policy such as "temporary protection" and "voluntary return". İçduygu (2015) suggests that more cooperation with NGOs should be established by giving importance to integration policies in Türkiye. These publications are in line with the literature of the study. Many researches predict that the Syrians will stay in the host countries. These studies also emphasize the need to develop integration efforts for Syrians in host countries. In addition, Türkiye is one of the countries hosting the highest number of Syrians and with the most research on Syria and migration. Therefore, the intense impact of field studies on Türkiye is observed in all clusters. Thus, it would be correct to interpret that Türkiye is predominantly concentrated in Cluster #3 and that two studies in this cluster serve as a bridge to other clusters.

The number of citations is an essential indicator for a publication, but it cannot measure its influence or density and evolution over time. A citation burst shows that a particular publication is associated with a surge of citations in a single year or years (Chen 2014). In other words, the publication has received extraordinary attention from the scientific community. The study with the highest burst level

belongs to the report published by İçduygu (2015). The report, published in 2015 has the highest burst score with 4.16 between 2016 and 2019. The number of integration-based studies on the perception that Syrians will stay in host countries has increased significantly. Therefore, İçduygu's report emphasizing integration is also compatible with the literature of the study.

Conclusion

An increasing number of articles are published every year on Syrian migration. Therefore, it is possible to say that the field is interesting for researchers. Developed countries and top-ranked universities are better at producing articles, as this study reveals too. On the other hand, it is seen that Türkiye, Jordan, and Lebanon, which host the most Syrian migration, are among the top 10 countries in the number of the articles, and they are represented in the top 10 with at least one university each. In particular, Türkiye, the second country after the United States, significantly contributes to the Syrian migration studies. This situation is closely related to the fact that Türkiye is a direct research.

In the co-citation analysis, the clusters of Temporary Protection, Governance Strategy, Labor Markets, Türkiye, Syrian Refugee Student, and Connected Migrant emerged. The research topics of the articles are also compatible with these first six clusters, which have the highest relationship and volume among them. In particular, the cluster of Governance Strategy with political science, the cluster of Syrian Refugee student with education educational and, the cluster of Connected Migrant with communication are significantly related to the areas in Table 1.

The cluster of Temporary Protection includes discussions on the effects of the presence of Syrian refugees in the host countries and their legal status. The average year of cited publications is 2014, and early discussions are in this cluster. The cluster of Governance Strategy, which has an average of 2015, mainly discusses how countries respond to Syrian migration and related country policies. The cluster of Labor Markets, which has an average of 2016, is based on studies that discuss the effects of Syrian refugees on host countries' economies and labor markets. The cluster of Türkiye, which has the average of 2017, includes studies in different disciplines with Türkiye cases. The cluster of Syrian Refugee Student, which has an average of 2016, includes Syrians' access to education in host countries, adaptation issues and suggestions. The cluster of Connected Migrant, which has the average of

2016, is the most homogeneous cluster of the study and therefore, the most relevant articles. This cluster mainly includes studies on the importance of information and communication technologies during the Syrian refugees' arrival in the host country and during their stay.

Although the Syrian civil war started in 2011, articles on Syrian migration have gained momentum since 2014 (figure 1). The cluster of Temporary Protection, which includes early discussions, frequently includes articles that cite reports and newspaper articles. In the following years, academic articles replaced these sources of information. Within a few years, it has started to be noticed that the length of stay of Syrians in host countries is prolonged, and most do not want to leave (Erdogan 2014). The effects of this long-term stay can be seen in two publications that constitute the intellectual turning point of the literature. Aras and Mencutek (2015) argue that with the increasing Syrian population in the country, Türkiye's "open-door" policy has changed into "non-arrival" and "voluntary return" policies. In his report, İçduygu (2015) argues that Türkiye's immigration legislation is insufficient, that Syrians will not leave Türkiye in a short time, and that integration efforts should be given importance, but Türkiye's opportunities are limited, and the international community should share the burden. These publications relate other clusters to each other. Because of the change in government policies with the stay of Syrian refugees in the host country, the discussion of focusing on integration policies are issues that concern the network (see figure 2) in other words, the whole literature. Also, İçduygu's report reached the highest burst level in the network and gained extraordinary attention. İçduygu's report is compatible with the New York Declaration on Refugees and Migrants, which was prepared one year after the report, recognizing that the problem transcends border countries and a worldwide solution was sought to be agreed upon. Because İçduygu has drawn attention to issues that need to be taken into account at the global level.

As a result, in the study, it has been revealed what kind of transformation has taken place in academic research on Syrian migration in the 11 years. At the beginning of the migration due to the civil war, academic studies focused more on settlement, then the interest shifted to humanitarian aid. Some turning points in the migration process are important in this sense. Migration policies have entered a different phase since 2016, when the migration problem crossed border countries and agreed on a global solution. After Syrians settled in border countries, migration studies focused on integration processes. Concerns about the legal status of Syrians

have been replaced by more social cohesion and integration efforts.

Limitations

In this study, we only used the WOS database. Scopus, dimension.ai and lens.org can also be included for a more comprehensive study.

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