Discovering Factors Causing Divorce Through Bibliometric Analysis

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ABSTRACT

Background: Divorce is a global issue, and its rate continues to increase every year. There has been a great deal of research on divorce; however, there has not been any attempt to provide a thorough scientific mapping of the topic. The networks, patterns, and divorce trends can be revealed through bibliometric analysis. This study aimed to identify the network visualization, overlay visualization, and density visualization of the factors that cause divorce.

Methods: This research was a bibliometric analysis study. The keywords were identified by searching the database at dimensions application and followed the stages of the PRISMA (preferred reporting items for systematic reviews and meta-analyses). The type of publication chosen was articles limited to publication from 2019 to 2023, focusing on human society, health science, psychology, and biomedical fields. Data were analyzed using VOSViewer software, version 1.6.18, and then reviewed by the co-occurrence and co-authors.

Results: The underlying factors of divorce found in this bibliometric study are very diverse. Based on network visualization, there were 178 items in 7 clusters with 5123 links and a total link strength of 40770. Through overlay visualization, the research trend regarding the factors related to divorce was early marriage, attitude toward marriage, HIV testing, depressive symptoms, sexual abuse, the COVID-19 pandemic, and culture. Meanwhile, according to density visualization, the topics with low category visualization were marital burnout, sexual violence against women, non-suicidal self-injury, physical abuse, and sexual satisfaction.

Conclusion: Previous studies have found a lot about the factors causing divorce through qualitative and quantitative study methods, but still, few studies have focused on how to prevent divorce. For other researchers, choosing a topic that belongs to the low visualization category is recommended to explore themes that have not yet been widely researched.

Keywords: Bibliometric analysis, Science mapping, Publications, Divorce factors, Dispute
Introduction

Divorce is severing a marriage bond after one or both partners decide to leave and stop fulfilling their obligations as husband and wife. Divorce is a legal step taken by married people to end their marriage. It occurs after a couple decides to no longer live together as husband and wife. Globally, the divorce rate has more than doubled from 1970 to 2008, rising from 2.6 to 5.5 per 1000 married people. Divorce occurs at a rate of 16.9 per 1000 married women (Fareed et al., 2022).

When a couple decides to get married, they hope for happiness until they grow old, but in reality, not all marriages run smoothly, and they will face various problems in their home life. Prolonged and unresolved conflict may lead to divorce. Through literature, the occurrence of divorce cannot be separated from its underlying factors.

Some authors have pointed to factors such as early marriage, attitude towards marriage, HIV testing, depressive symptoms, sexual abuse, the COVID-19 pandemic, and culture (Dagnew et al., 2020; Han et al., 2021; Wang et al., 2021; van Dijk et al., 2022).

Throughout the history of human life, divorce cases have been difficult to stop and continue to occur in all countries; many couples experience trauma, heartache, disappointment, depression, and even mental disorders as a result of the impact of divorce because they will face new life challenges after a divorce (van Dijk et al., 2020). Multiple adverse consequences of divorce must be the focus of attention because it is not only the couple who is divorcing and affected but the family, especially the children, will also be affected. The traumatic impact

Highlights

- The number of divorces in different countries is increasing every year.
- Many adverse effects of divorce on husband, wife, children, families, and communities become a serious social problem that must be addressed.
- It is necessary to know what factors cause divorce to reduce the number of divorces by preventing them; bibliometric studies can serve this goal.
- Overlay visualization indicates that the newest widely-researched topics related to factors causing divorce are early marriage, attitude towards marriage, HIV testing, depressive symptoms, sexual abuse, the COVID-19 pandemic, and culture.
- Based on the density visualization, topics related to the factors of divorce that were rarely researched are marital burnout, sexual violence against women, non-suicidal self-injury, physical abuse, and sexual satisfaction.
- It can be seen that research themes related to divorce are currently trending but are still rarely carried out, so they can be input for further research on the factors causing divorce.

Plain Language Summary

Novelty in scientific publishing is crucial. It is an absolute requirement that must be regarded in scientific articles. With bibliometric analysis, we can identify research themes and trends that are currently trending and have been widely researched. Bibliometric analysis using VOSViewers can include individual journals, researchers, or publications, and all of these can be obtained by citation, bibliographical merge, co-citation, or co-author links. VOSViewer also offers text mining functionality, which can be used to build and visualize co-occurrence networks of key terms extracted from collections of scientific literature. In the bibliometric analysis of the factors that cause divorce, we found variables such as early marriage, attitude, HIV testing, depressive symptoms, sexual abuse, the COVID-19 pandemic, and culture, which are research trends. Marital burnout, sexual violence against women, non-suicidal self-injury, physical abuse, and sexual satisfaction were still rarely researched. Therefore, to achieve innovation in research, it is hoped that future research will be conducted on topics that are still seldom done.
on children includes creating negative views about marriage, being afraid to find a partner, and even being afraid to get married because they are overshadowed by events like the divorce of their parents (Tucker et al., 2021).

The high rate of divorce can indicate problems, causing married couples to take the path of terminating their marriage or divorce. Accordingly, it is necessary to know the underlying factors of divorce because divorce is contrary to the purpose of marriage, which is to form a household that is physically and mentally happy forever (Aboobakuru & Riyaz, 2021).

Considering that the divorce rate is increasing every year in the world, it is necessary to find out the factors causing divorce in all countries and search for results related to divorce through journal literature. Detecting the factors leading to divorce can be a guide for governments to make efforts to prevent it. Through pre-marriage counseling, the feelings of the future bride and groom can be mentally prepared and mature so that they can face married life with more readiness and avoid divorce.

Although there has been a lot of research on divorce, no attempt has been made to prepare a complete scientific map of this domain. With the analysis of literature using VOSViewer software, version 1.6.18, it is possible to identify research related to the factors of divorce that have been widely studied and are currently trending. Choosing the research themes that have not been widely studied can further broaden our knowledge of the factors that cause divorce. Accordingly, this study was conducted to identify the network visualization, overlay visualization, and density visualization on the factors that cause divorce.

Materials and Methods

This research is a bibliometric analysis study. This analysis is a scientific review methodology that can identify the main research or authors and their relationship by covering all publications related to a specific topic or field of research using computers (Murugesu et al., 2022). In addition, bibliometric analysis is a research method used in library and information science to evaluate research performance (Syros et al., 2022). Bibliometric analysis is critical in assessing research impact, as studies are ranked based on the citations received (Pahwa et al., 2022).

Data source

This study’s data source is based on an online search using dimensions application. Dimensions application is a dynamic, easy-to-use research data platform to find and analyze research data. This platform combines publication data connected to a diverse research ecosystem, making it suitable for meeting various user needs related to research data globally (Hald et al., 2023). Dimensions application, a global digital science data connection, is compatible with modern research systems. Dimensions also informs about open access status and indexation of an up-to-date publication. Users can see the research work’s “open/closed” access status. Also, they can see those archived in repositories if the data stored are not entirely open-access. Through Dimensions application, we can also view and explore various publication data indexed in it, from before to after publication (Bode et al., 2019). The literature search followed the stages of PRISMA (the preferred reporting items for systematic reviews and meta-analyses) (Page et al., 2021).

The strategy of searching research database with dimensions application

To search in this database, we proceeded through 6 steps. In step 1, we logged into https://app.dimensions.ai to choose the theme or keywords (divorce, cause, factor). The keywords were separated by writing “AND” between the words. In step 2, we selected “publication year” and limited it to the years 2019-2023. Step 3 included the selection of “research category” and then the selection of “field of research” and the category that suits the theme we are taking and clicking “limit to”. Step 4 was the identification of “publication type” (with the options of article, proceedings, textbook, book chapter, etc.) and clicking on “limit to”. In this step, our option is limited to articles. In step 5, we could choose “save/export”, and we selected “export results”. Finally, in step 6, we selected “export for reference manager” and then “RIS Format”, and a notification appeared in the email with RIS format data and was downloaded.

Inclusion criteria

Inclusion criteria in dimension.ai are based on the field, author, publication type, and year of publication. Our search was restricted to publication years 2019-2023, fields of human society, health science, psychology, biomedical, and clinical. Also, the publication type was “article”. We chose this publication period because it collects the latest research from the last 5 years and is, therefore, more up-to-date. The selected fields were
also most related to the theme of divorce. Book chapters, proceedings, preprints, monographs, and edited books were excluded.

Data selection

Data selection was carried out using the stages in PRISMA, including identification, screening, and inclusion, as shown in Figure 1. Stage 1 (identification) detected 407603 records from dimensions application, taking into account each of the main search terms (factors and causes of divorce), “article document type”, and “all published data from 2019 to 2023. In stage 2 (screening), the option “title, article, abstract” was selected in the field of each search term, resulting in 301298 articles. In stage 3 (included), the final sample yielded 24323 articles. Process details are shown in Figure 1.

Data analysis

The obtained data were analyzed using VOSViewer software, in this research. In step 1, we opened www.vosviewer.com, clicked “create”, then “create a map based on text data”, and finally, “next”. In step 2, we clicked “read data from reference manager files” and clicked “next”. In step 3, we selected “download” with the RIS format obtained from the search results on dimension.ai, which were downloaded. In step 4, we waited for VOSViewer to extract the data. In step 5, we selected “full counting” and clicked “next”. In step 6, on the “choose threshold” menu, we immediately clicked “next”. In step 7, there was a “choose number of terms” menu. We immediately clicked “next” and “finish”, and then network visualization, overlay visualization, and density visualization results appeared.

The analysis type was selected to create maps based on text data. In this study, analyses were done by co-occurrence and co-authors.

Co-occurrence procedure

The procedure for co-occurrence analysis went through the following stages. The data source was selected, and data from reference manager files were read. The fields from which the terms will be extracted were chosen as title and abstract. The counting method was selected as full counting. The threshold was selected as the minimum number of term occurrences is 10. The number of terms selected was 178.

Figure 1. PRISMA flowchart
Co-authors procedures

In this study, the researcher followed this procedure for co-authorship analysis. In step 1, the data type was chosen, and a map was created based on bibliographic data. In step 2, the data source was chosen, and data from reference manager files were read. According to the supported file type, which is RIS format, the kind of analysis and counting method was chosen: The maximum number of documents of an author is 25. Of 2060 authors, 3 met the threshold. In the option of “choose the author”, for each of the 49 authors, the total co-author links with other authors were calculated. The authors with the largest total links were selected. After verification, the number of authors selected was 3.

Results

Publication search related to the factors causing divorce

A publications search related to the factors of divorce in the period of 2019-2013 resulted in 407603 articles. After screening through the specified criteria, the number of obtained articles was 24323. The highest number of publications was related to 2021, with 6075 articles, while the lowest was 2023, with 2931 articles. There was a significant decline in the number of publications on the factors of divorce from 2021 to 2023. This outcome could be related to the end of the pandemic situation that occurred at this time interval, where it is believed that one of the important reasons for the increased divorce rate in 2020-2021 is the occurrence of the pandemic (Niu et al., 2023; Jiang, 2022; Puspitasari & Gayatri, 2022). Not many articles were found on the topic of divorce factors in 2023. This result is because the search for articles was done in July 2023; therefore, many articles from this year have not yet been published. Publication trends in recent years are presented in Figure 2.

Number of publications related to the factors causing divorce by research category

The number of publications related to the underlying factors of divorce is mostly dominated by Human Society, Health Science, Psychology, Biological and Clinical fields (Nemati et al., 2022; Bergström et al., 2021; Shamloo et al., 2023; Liu et al., 2023). However, other disciplines, such as Economics, Education, and even Biology, have also participated in the research of this problem (Liu et al., 2023; Hakimi et al., 2021). The related data can be seen in Figure 3. Research on the factors of divorce is dominated by the field of human society, perhaps because divorce has the potential to become a social problem.

Network visualization of the factors causing divorce concept in publications

According to Figure 4, there were 178 items grouped into 7 clusters with 5123 links and a total link strength of 40770. After identifying the clusters, the factors of divorce were identified as early marriage, attitude, HIV testing, depressive symptoms, sexual abuse, the pandemic of COVID-19, culture, non-suicidal self-injury (NSSI), sexual violence against women (VAW), physical abuse, and sexual satisfaction.
Figure 3. Number of publications of each field of research (source: dimensions application)

Figure 4. Network visualization (source: VOSViewer)
Figure 5. Overlay visualization (source: VOSViewer)

Figure 6. Density visualization (source: VOSViewer)
Overlay visualization of the factors causing divorce concept in publications

Figure 5 shows the overlay visualization analysis based on the keywords. The trends in research titles and the theme in question are seen with a yellow color code, indicating the most popular ones that have been researched. Figure 5 shows that the most popular researched factors of divorce are early marriage, attitude, HIV testing, sexual abuse, the COVID-19 pandemic, physical abuse, and culture.

Density visualization of the factors causing divorce concept in publications

Density visualization can be used to see parts of research that are rarely done. According to Figure 6, the yellow color code indicates that a lot of research has been carried out on this theme; the blue and distant color codes mean that it is still little and rarely researched. Based on Figure 6, research on factors causing divorce that are still rarely researched are marital burnout, VAW, NSSI, physical abuse, and sexual satisfaction.

Discussion

This study led to the identification of network visualization, overlay visualization, and density visualization of the factors causing divorce. Based on network visualization, there were 178 items grouped into 7 clusters and 5123 links with a total link strength of 40770. After identifying the clusters, the underlying factors of divorce were recognized as early marriage, attitude, HIV testing, depressive symptoms, sexual abuse, COVID-19 pandemic, culture, NSSI, VAW, physical abuse, and sexual satisfaction.

Overly visualization revealed that the most recent topics that have been widely researched in relation to divorce factors are early marriage, attitude, HIV testing, depressive symptoms, sexual abuse, the COVID-19 pandemic, and culture. Based on density visualization, topics that were rarely researched related to the concept of factors of divorce are marital burnout, VAW, NSSI, physical abuse, and sexual satisfaction.

Early marriage

Early marriage is a social phenomenon that affects the relationship between husband and wife and the family. Early marriage is psychologically defective because it affects the thinking and behavior of the young couple. Mental maturity and emotional readiness are needed in marriage so the couple can think more maturely when dealing with household problems. In marriages with partners at an early age, the couple is not ready to think more maturely when household problems occur, so there is a risk of conflict leading to divorce (Dagnew et al., 2020). Early marriage affects the physical and biological aspects of adolescents. In terms of health, marriage at a young age has a negative effect on the health of the mother and child. Mothers who conceive at a young age are at increased risk during childbirth because their pelvis is not fully developed (Fura et al., 2018). Psychologically, child marriage can cause trauma and a crisis of self-confidence, so emotions do not develop properly. Apart from that, early marriage also causes cognitive disorders, such as lacking the courage to make decisions, difficulty solving problems, and impaired memory. These problems can trigger divorce (Lebni et al., 2023).

Attitude toward marriage

Marital attitudes are individual positive or negative evaluations of general concepts related to marriage. Positive individual attitudes towards marriage are characterized by the belief that marriage will be successful and happy, while negative attitudes consider marriage only a legal agreement or contract. It has been found that individuals who have strong negative attitudes about marriage are more likely to exhibit ineffective interpersonal behavior and to report adverse relationship outcomes, namely higher conflict, less satisfaction, and ending the relationship with divorce than individuals with positive attitudes toward marriage (Nabila & Aditya, 2022).

HIV testing

The negative stigma from society and the fear of contracting this virus have scared people from disclosing the positive results of HIV tests to others, especially their partners. Research conducted in Ethiopia revealed that women tend to experience more fear in disclosing HIV test results to their partners. Fear of being abandoned, fear of physical violence, stigma and discrimination, as well as the accusation of infidelity and the end of the cohabitation with divorce, were the main reasons given by the respondents for not disclosing it (Alemayehu et al., 2014). The positive association between divorce and HIV-positive status is attributed to several factors. Divorce can increase the risk of HIV because divorced people are more likely to have more sexual partners during their lifetime, which in turn leads to a higher chance of becoming HIV positive. However, engaging in high-risk behaviors, such as cheating on a spouse, may increase the chances of divorce and a positive HIV test. Another
possibility is that awareness of HIV status, in itself, is a trigger for divorce (Yang et al., 2022). Many people recognize their partner as a significant potential source of HIV risk, and divorcing a partner who is known or suspected to be HIV-positive or having extramarital partners is another prevention tactic people use (Yang et al., 2021).

Depressive symptoms and NSSI

Someone who is depressed will experience a sad, empty, hopeless mood or even lose interest and enthusiasm for activities. Generally, these events are caused by hormonal changes, genetic factors, illness, and life experiences that can trigger stress, such as divorce. It was shown in a study that the risk of divorce in all analyses was significantly higher for couples in which one partner experienced psychological distress than for couples without distress. There was also a significant interaction effect indicating that the risk of divorce was greater for couples with two partners experiencing psychological distress than for couples with one partner experiencing psychological distress (Majani et al., 2022). Mental pressure experienced by individuals can lead to suicidal ideation, which causes NSSI.

Sexual and physical abuse and sexual violence against women

Forms of violence include physical violence, psychological/emotional violence, sexual violence, and economic violence. This form of spousal violence is certainly not exclusive to sexual violence, physical abuse, or sexual violence against women, but all these forms can be related to each other. A wife who experiences psychological/emotional violence (such as a husband having an affair), then this violence can continue into physical violence (the husband beats his wife), continues into economic violence (the husband does not provide a living, neglects her, and continues with sexual violence (forcing sexual services against wife). Thus, in a divorce case, it turns out that one or more forms of violence against wives can occur. In another case of divorce, a wife may experience physical violence, psychological/emotional violence, and economic violence, even sexual violence all at once. The grouping into forms of violence is based on an indication of which violence is the strongest (dominant) among other forms of violence (Rasito, 2021).

COVID-19 pandemic

During the COVID-19 pandemic, many economic problems affected family welfare. This condition led to many conflicts in some families, resulting in ongoing disputes between husband and wife because they could not meet their children’s daily and educational needs. Such disputes often do not get a resolution, which leads to divorce. Many stressors that emerged during the pandemic, along with the lockdown and the stay-at-home of family members, led to a significant increase in the intensity of domestic conflicts (Puspitasari & Gayatri, 2022; Herbst-Debby, 2023).

Culture

Marriage is a union of two people with many differences, one of which is cultural difference. There are many problems that couples with different cultures usually face. This means that these couples do not study deeply about their spouse’s cultural background before the wedding, which becomes a problem that often arises. Also, there will usually be communication problems, differences in thinking, differences in life principles, differences in life patterns, parenting, and family relationships. It has been reported that the relationship between different sociocultural backgrounds is less satisfactory than culturally homogeneous. This relationship tends to end in divorce, and this is due to differences in values, ideology, or attitudes (Uhlich et al., 2022).

Marital burnout

One of the problems commonly experienced by couples in married life is marital burnout. Therefore, couples must take the necessary steps to prevent and reduce this excessive stress. Marital saturation, caused by a long-term conflict between spouses, intensifies emotions, increases conflicts, and lowers the love owned so far, ultimately reducing the quality of married life and leading to divorce (Nejatian et al., 2021).

Sexual satisfaction

The sexual activity is one of the most important things in forming intimacy between husband and wife. Sexual activity can affect the status and marital relationship itself. Some families are shaken and destroyed because one of the parties cannot fulfill their obligations in meeting the sexual needs of their partner. It has been reported in a study that couples who are stressed and less harmonious report more conflict, less sexual satisfaction, and lower relationship quality. The results of this study also note that frequent disputes are associated with lower sexual satisfaction (Uhlich et al., 2022).
Conclusion

The peak publication on the factors causing divorce is seen in 2021 and the lowest in 2023. Research on the factors of divorce is carried out by the social sciences, humanities, health and psychology, and other fields such as clinical biology, education, and economy. Divorce is a problem that must be addressed immediately so that the divorce rate does not increase. By studying and researching the factors that cause divorce, it can be used as material for discussion in counseling on the mental readiness and emotional maturity of prospective brides and grooms as an effort to prevent divorce. Regarding the literature on the factors that cause divorce, the results obtained from the overlay visualization were early marriage, attitude towards marriage, HIV testing, depressive symptoms, sexual abuse, COVID-19, and culture. Based on the density visualization, the topics related to the factors of divorce that were rarely researched are marital burnout, sexual violence against women, non-suicidal self-injury, physical abuse, and sexual satisfaction.

The impact of divorce that occurs will be felt not only by the couple but also by the family, especially the children, and can cause trauma to the children. Efforts should be made to prevent divorce from occurring to avoid the risk of physical, social, and psychological problems arising in divorce victims. Efforts to prevent divorce can be made by carrying out psychoeducation and premarital counseling to prepare prospective married couples for marriage, where the content of the premarital counseling includes one of the factors causing divorce so that the prospective bride and groom can anticipate events that will occur in their married life. Future research on the topics that were rarely researched is suggested.

Study limitations

This bibliometric analysis of literature suffers from several limitations. First, the limited literature available regarding culture discusses differences in partners with sociocultural differences and regarding HIV test results; the literature tends to discuss the inability to disclose the test results rather than the factors of divorce. Literature on sexual and physical abuse and VAW is made into one discussion because the same literature discusses this matter. Likewise, regarding the theme of depressive symptoms and NSSI, more literature discusses this theme as the impact of divorce rather than the factors that cause divorce.

Ethical Considerations

Compliance with ethical guidelines

There were no ethical considerations to be considered in this research.

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Authors' contributions

Conceptualization: Sri Wahuni and Mohammad Fat-khu Mubin; Study design: Sri Wahyuni and Satriya Pranata; Initial draft preparation: Sri Wahyuni, Satriya Pranata, and Ernawati; Data interpretation, review, editing and final approval: All authors.

Conflict of interest

All authors declared no conflict of interest.

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