



How to cite this article:

Roslan, M.F., Ishak, N.S., Ghazali, N.M., Ishak, N.S. & Yahya, M.A. (2025). Tracing the trajectory of social well-being publications: A bibliometric approach. *Social Security Management Journal*, 2(1), 40-55. <https://doi.org/10.32890/ssmj2025.2.1.3>

## **TRACING THE TRAJECTORY OF SOCIAL WELL-BEING PUBLICATIONS: A BIBLIOMETRIC APPROACH**

**<sup>1</sup>Mohd Firdaus Roslan, <sup>2</sup>Noor Syazwani Ishak, <sup>3</sup>Norsairah Mohd Ghazali, <sup>4</sup>Noor Syamimi Ishak & <sup>5</sup>Mohamad Afifi Yahya**

<sup>1</sup>Faculty of Engineering & Technology, Tunku Abdul Rahman University of Management and Technology, Malaysia

<sup>2</sup>General Studies Department, Sunway College, Malaysia

<sup>3</sup>Unit Jaminan Kualiti, Pejabat Akademik, Cybernetics International College of Technology, Malaysia

<sup>4</sup>Faculty of Education, Languages, Psychology & Music, Segi College, Malaysia

<sup>5</sup>Sunway Diploma Studies, Sunway College, Malaysia

<sup>1</sup>*Corresponding author: mohdfirdaus@tarc.edu.my*

Received: 8/5/2025

Revised: 15/5/2025

Accepted: 30/5/2025

Published: 1/06/2025

### **ABSTRACT**

Social well-being is an approach that deals with the quality of social relationships within the wider community. This approach involves a person's social interactions with others while building healthy relationships and providing positive stimulation from social networks. This study aims to explore social well-being research-related publishing patterns, and trends most commonly use author keywords in the Scopus and Web of Science (WoS) databases. The eminent software, ScientoPy and VOSviewer, are used to run and execute relevant publication data retrieved from Scopus and WoS. The results showed a positive trend in the growth of social well-being literature in both databases since 1968. The top three research areas that dominate this topic are "psychology," "public, environmental & occupational health," and "business & economics." Based on a country analysis, United States has become an active publisher, followed by the United Kingdom and Australia. Importantly, these studies emphasized the scholarly practices prevalent in social well-being research have impressively propagated. The trends will assist researchers in recognizing various fields in identifying the core areas, proactive institutions, and productive authors published in this knowledge for supplementary investigation. Besides, by examining the most popular keywords, the results of this studies enable researchers to discover the possibility for future research that may be conducted, particularly concerning the annual growth rates, which have been trending in the last five years.

**Keywords:** social well-being, quality of life, mental health, social relationships, bibliometric analysis.

## INTRODUCTION

These days, it is easy to become so engrossed in the daily grind of work and life that one frequently overlooks on social well-being, which can have an impact on one's everyday spirituality. Individuals' ability to build solid relationships with others depends on their social well-being, which is also crucial for their general health (Wissing et al. 2021). In addition, social interaction can provide daily well-being, which can help foster and maintain healthy relationships in daily life. Social well-being can also be achieved if there is effective communication, and mutual respect regardless of one's differences (Livingston et al., 2022). Indirectly, this practice can provide an excellent social well-being to everyone who are around us at all time.

Meanwhile, Hamilton and Gross (2021) referred social well-being as a person's ability to build and maintain meaningful relationships with others including family, friends, colleagues, and community members. Social well-being also involves a sense of belonging, appreciating diversity, and engaging in positive social interactions that can provide support and comfort in relationships. Research has shown that strong social connections are linked to numerous health benefits including lower stress levels, reduced risk of mental health issues such as depression and anxiety, and even a longer lifespan. These social connections not only contribute to emotional well-being, but they also have a direct impact on our physical health (Holt-Lunstad, 2024). In addition, feeling connected to others not only boost our immune system, but can also lower blood pressure and reduce our risk of chronic diseases such as heart disease. In short, investing in social well-being is just as important as taking care of our physical health.

Prioritizing our social well-being is essential to our overall health and happiness. By spending time in existing relationships and nurturing those connections with others, we can experience a variety of benefits that contribute to a fulfilling and meaningful life. Making time for meaningful relationships is essential in our lives, as is practicing active listening and empathy, and trying new activities together to strengthen that social well-being (Tustonja et al., 2024). Overall, social well-being can certainly be fostering good relationships with others by actively participating in the social world. This is because the ongoing process of being in relationships requires attention and effort that can yield great rewards for overall health and happiness (Hui et al., 2020). Thus, a key component of social well-being also includes a person's acceptance which reflects how the individual sees their relationship with society and their role within it.

However, there has been a lack of exploration conducted to analyze the research trends in the field of social well-being within challenges and opportunities, particularly in identifying specific domains within this field that have received limited attention. Hence, the present studies employ bibliometric analysis to discern research trends within the realm of social well-being research. This focus remains strong despite increasing interest in this field of studies (Iyer et al., 2020; Shankar et al., 2021). As a result, it has been noted that most research has focused on managing and delivering records supporting materials and documentation (Farooq et al., 2021).

To address the issue of excessive information availability and the breadth of different research topics, bibliometric analysis can assist scholars and researchers in gaining a broad or even microscopic view of the overall progress and steady and continuous flow status (Gazali et al., 2021). Information retrieval is crucial to the cross-disciplinary field; this process can analyse aspects of information science and publication trend analysis. The bibliometric technique visualises vast publishing outputs necessary for deriving valid conclusions, such as the evolution of publications, study fields, and influential authors (Sofyan & Abdullah, 2022).

## METHOD AND DATA

Bibliometric analysis is a quantitative research technique that systematically analyzes and evaluates scientific publications and their attributes, allowing the identification of patterns, trends, and relationships within a specific field of study (Leydesdorff & Vaughan, 2006). This analytical approach examines bibliographic data, including citations, to gain valuable insights into the scholarly communication process and the influence of scientific research (Waltman, 2016). Bibliometrics made it easier for researchers to identify research gaps, emerging research prospects, and significant research areas (Abdullah & Othman, 2022). It indirectly enables them to summarize the significant trends of a particular study field. The current study primary goal was to identify patterns in social well-being-focused publications.

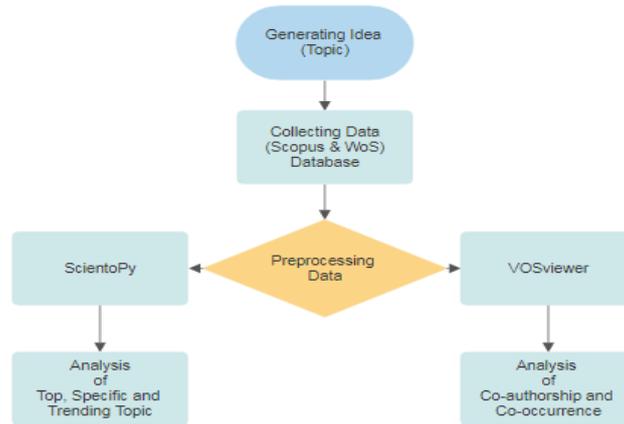
In this studies, two software programs were utilized: ScientoPy and VOSviewer to accomplish bibliometric analysis. ScientoPy is a free and an open-source scientometric analysis program built on Python software developed by Ruiz-Rosero et al. (2017) that sorts data according to the most well-liked, specific, and trending topics and subsequently tested for usability and effectiveness in a later study by Ruiz-Rosero et al. (2019). Pabon et al. (2020) demonstrated that this software helps detect and eliminate duplicate datasets and clean up non-standard data formats. ScientoPy, as demonstrated by Ruiz-Rosero et al. (2019), can automatically categorize and report on the top themes based on author or index keywords, as well as identify the most prolific authors and countries involved in the research, using bibliographical information. VOSviewer is another piece of software used to map the co-occurrence of authors' keywords. VOSviewer is a software application that assists in constructing and visualizing bibliometric networks (Abdullah et al. 2020; Roslan et al. 2023).

Figure 1 depicts the data processing sequence in this analysis and it consists of a systematic strategy that has been divided into three primary parts. First, the title should be determined, and the datasets be developed and gathered. The second phase involves integrating the databases and obtaining the ScientoPy-analyzable parameters. In the last stage, ScientoPy and VOSviewer parameters are used to evaluate and analyze the results.

Given the multifaceted nature of the studied topic, the literature on social well-being studies is spread across many different fields. As a result, it was necessary to use accessible and numerous bibliographic databases to search for and find pertinent material on this subject. Two primary databases, Scopus and Web of Science (WoS), were used to collect the data for this study. The Scopus and WoS database are preferred since it is a multidisciplinary database with more articles in social science, education-related journals, management, and other documents in various academic disciplines (Sweileh, 2022; Visser et al., 2021). The Scopus and WoS databases also attract most scholars to obtain publications for their review purposes (Abdullah et al., 2023). These databases span multiple fields (Martín-Martín et al., 2021), and searching them would aid researchers in locating the most significant number of citations on primary sources for bibliometric studies (Pranckuté, 2021).

After defining the databases, the search query "social well-being" OR "digital security" was chosen. The following fields were scanned for topic-related terms: article title, abstract, keywords for Scopus (9865 scripts) and all fields for WoS (5984 scripts). This inquiry was completed on September 26, 2024. The search timeframe was set between 1968 to 2023

**Figure 1**  
*Selection Strategy and Research Protocol*

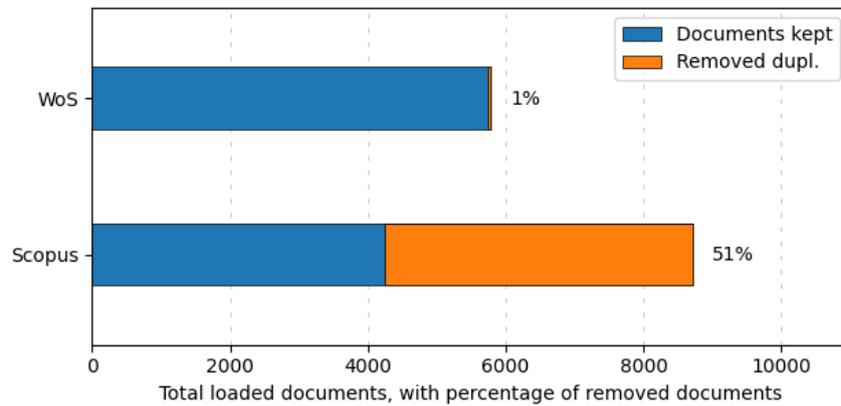


During the second stage, ScientoPy was used to preprocess the data. The secondary dataset is then established for the following analysis stage. ScientoPy uses the following criteria during the pre-processing steps; (i) normalizing the author’s name: it is replaced with a semicolon for metadata retrieved from the Scopus database, it is stripped of dots, commas, and special characters for metadata retrieved from both databases, and (ii) removing duplicate samples with the same title and authors (Ruiz-Rosero et al., 2019). The pre-processing information is recorded in Table 1. Based on Table 1, the ScientoPy pre-processing script has shown that Scopus databases are more than WoS and after duplicate removal, there are more papers in WoS papers than in Scopus. This study used a raw source dataset of 15,849 papers from the WoS and Scopus databases. In this study, 1341 of the 15,849 loaded papers were eliminated due to ScientoPy’s analysis. Following data reconciliation, this study examined 9990 papers from both databases, containing 5747 papers from WoS and 4243 papers from Scopus, after removing 4480 from Scopus and 38 duplicate papers from WoS. Finally, the 9990-piece data set was analyzed, and the necessary statistical reports, graphs, and tables were generated using bibliometric data visualization tools, ScientoPy and VOSviewer.

**Table 1**  
*Information on Pre-processed Data Analysis*

<b>Information</b>	<b>Number</b>	<b>Percentage (%)</b>
Loaded papers	15,849	
Omitted papers by document type	1341	8.50
Total papers after omitted papers removed	14,508	
Loaded papers from WoS	5785	39.90
Loaded papers from Scopus	8723	60.10
Duplicated papers found	4518	31.10
Removed duplicated papers from WoS	38	0.70
Removed duplicated papers from Scopus	4480	51.40
Duplicated documents with different cited by	3062	67.80
Total papers after duplicate removal	9990	
Papers from WoS	5747	57.50
Papers from Scopus	4243	42.50

**Figure 2**  
*Pre-processing of Metadata from Scopus and WoS Databases*



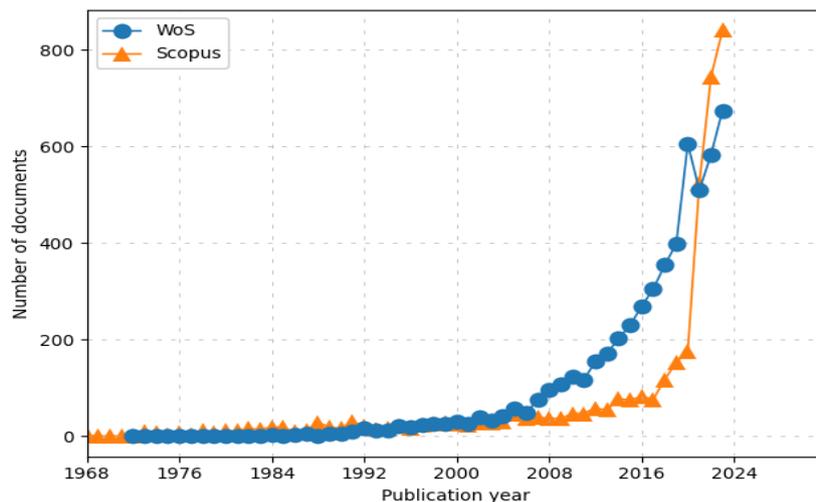
Scholars around the world use many bibliometric software programs intending to provide information to readers with various interesting infographics and graphical visualizations (Roslan et al., 2023). Even if several software programs are available for conducting bibliometric analysis, choosing a solution that corresponds to the studies objectives and questions is essential. This emphasizes assessing the research questions before selecting a software application. The success of software in bibliometric analysis ultimately depends on the researcher's capacity to answer the research questions posed in the studies (Abdullah et al., 2023; Roslan et al., 2023).

## RESULTS

### Publication Growth

The number of peer-reviewed publications is an excellent indicator of a scientific topic's growth. As shown in Figure 3, since 1968 there is a significant increase in articles on social well-being research. Compared to Scopus, WoS publications have grown steadily, with a sharp rise after 2008 and has also taken the lead from the overall number of documents compared to Scopus.

**Figure 3**  
*Timeline Graph*



Data in Table 2 indicates the latest five years of publications in WoS and Scopus. From 2019 to 2023, it was discovered that WoS produced 2768 publications, and Scopus produced 2435 publications. The highest publication produced by WoS and Scopus is in the year 2023 with WoS produced 674 and Scopus produced 840 publications.

**Table 2**

*Five Years Publication Trends*

<b>Year of Publication</b>	<b>WoS</b>	<b>Scopus</b>
2019	398	153
2020	605	176
2021	509	523
2022	582	743
2023	674	840
<b>TOTAL</b>	<b>2768</b>	<b>2435</b>

This study also sought to determine where social well-being documents were published by analyzing document types and language data. Table 3 presents the different types of documents where publications on social well-being have been published. It showed that majority of the publications are articles with a total of 7280 articles (76.45% of the total documents). Following the articles is a review (n = 864, 9.07%), and a proceedings paper (n = 700, 7.35%). Conference paper, book chapter and early access represent the other three categories of documents, respectively, taking up less than 6% of the total amount of documents.

**Table 3**

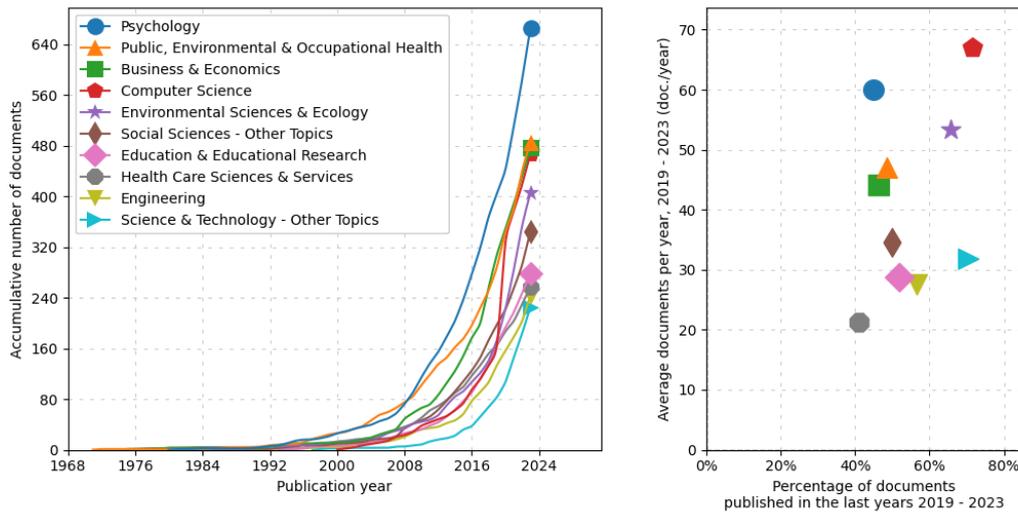
*Document Type*

<b>Document Type</b>	<b>Total of Publications</b>	<b>Percentage (%)</b>
Article	7280	76.45
Review	864	9.07
Proceedings Paper	700	7.35
Conference Paper	490	5.15
Book Chapter	120	1.26
Early Access	69	0.72
<b>Total</b>	<b>15,742</b>	<b>100.00</b>

**Subject Area**

It is critical to conduct a review on relevant research articles as this strategy enables the essential disciplines in which research on social well-being has been conducted to be identified. Figure 4 depicts an evolution graph of the top ten subject areas that can be used to categorize social well-being research in Scopus and WoS databases. Psychology has been identified as the most extensively investigated field with over 650 publications. Another fascinating subject is public, environmental, and occupational health with 486 publications, and the third-ranked subject area is business and economics with 477 publications.

**Figure 4**  
Subject Area Evolution Graph



Data in Table 4 showed the latest five years of publication trends from 2019 to 2023. It was found that computer science subject produced with average of 67 publications per year. This followed by the psychology subject with an average of 60 publications, and environmental sciences and ecology subject with an average of 53.4 publications.

**Table 4**  
Five Years on Top Ten Subject Area

Subject Area	Total Publication (5 years)	Average
Computer Science	335	67
Psychology	300	60
Environmental Sciences & Ecology	267	53.4
Public, Environmental & Occupational Health	235	47
Business & Economics	221	44.2
Social Sciences - Other Topics	173	34.6
Telecommunications	160	32
Science & Technology - Other Topics	159	31.8
Education & Educational Research	144	28.8
Engineering	138	27.6
<b>Total</b>	<b>2132</b>	<b>426.4</b>

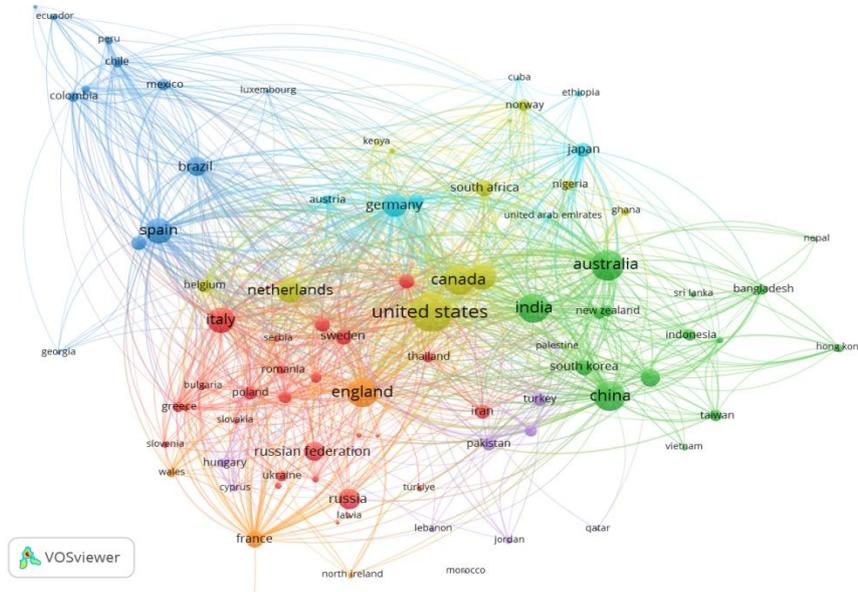
**Publishing Countries**

Since 1927s, research on social well-being has been conducted in various countries. Figure 5 shows the country network visualization of social well-being research. Based on Figure 5, United States was found to have more connections than other countries. This followed by India, Australia, China, Italy, and England. In Figure 6, United States, United Kingdom, and Australia were identified as the top three publishing countries in social well-being research. While, the three lowest-ranked countries are Italy, Spain, and Netherlands. United States is at the top of the first chart in the study on social well-being and

this proved that United States is the leading researcher in this field. However, there are still not many countries that contribute towards the publication of social well-being research. Thus, the studies of social well-being should be explored deeper and expanded in many countries.

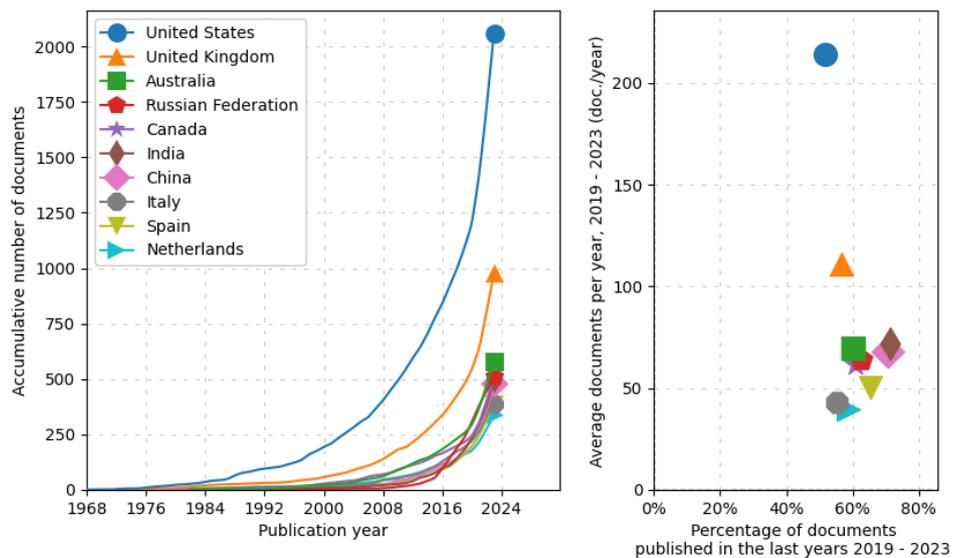
**Figure 5**

*Network Visualization for Publishing Countries*



**Figure 6**

*Country Evolution Graph*

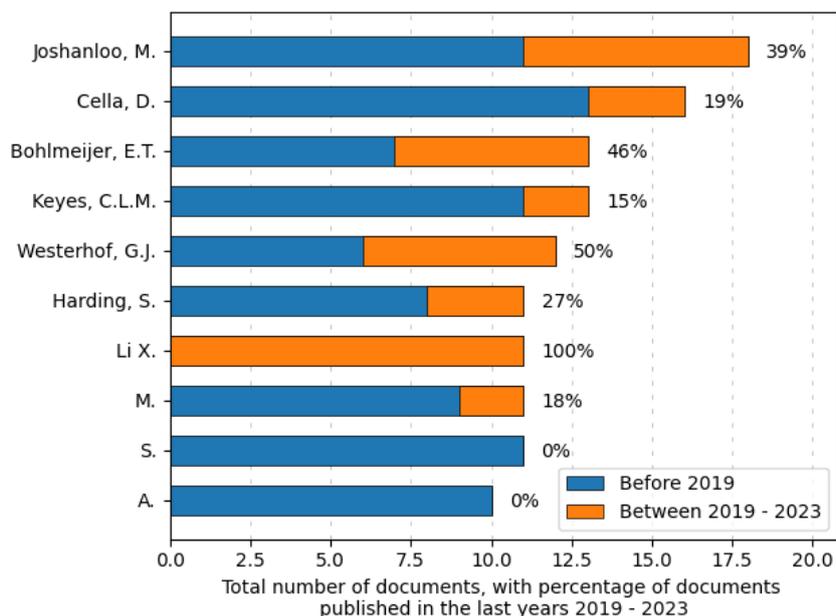


### Productive Authors

Figure 7 presents the most productive authors in social well-being research, which are ranked according to the number of publications. A list of ten authors is included, along with the 55 years and the last five years' trending percentages.

**Figure 7**

*Productive Authors Bar Trends*

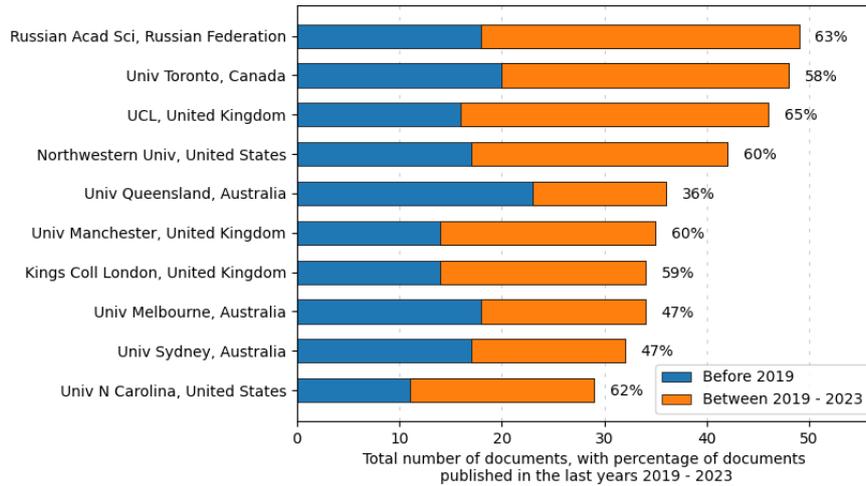


As shown in Figure 7, Jashanloo, M was ranked first with 18 publications, and followed by Cella, D with 16 publications and Bohlmeijer, E.T with 13 publications. These three authors were the most productive in writing journal and remained the most influential in social well-being research, with the possibility plans to maintain further publications for the future. Remarkably, Li, X has been the active author in the last five years, with 100% of publications released from 2019 to 2023. Also, the compelling authors in the previous five years is Westerhof, G.J with 50% of publications and Bohlmeijer, E.T with 46% of publications. This data is the most up-to-date information for future readers and researchers who want to know which authors are most active in social well-being research.

### Institutional Analysis

Figure 8 indicates the top ten institutions that publish academic works on social well-being research. The scholars from Russian Academy of Sciences in Russian Federation were credited with the most publications, 49 publications. This followed by University of Toronto in Canada with 48 publications, and London's Global University (UCL) in United Kingdom with 46 publications. An intriguing feature of the top ten institutions in 55 years is that there are three institutions from United Kingdom and Australia. Thus, London's Global University (UCL) in United Kingdom is the most active for the last 5 years with 65% of publications in social well-being studies. This shows that publications related to social well-being research are still growing over time.

**Figure 8**  
*Institutional Bar Trends*

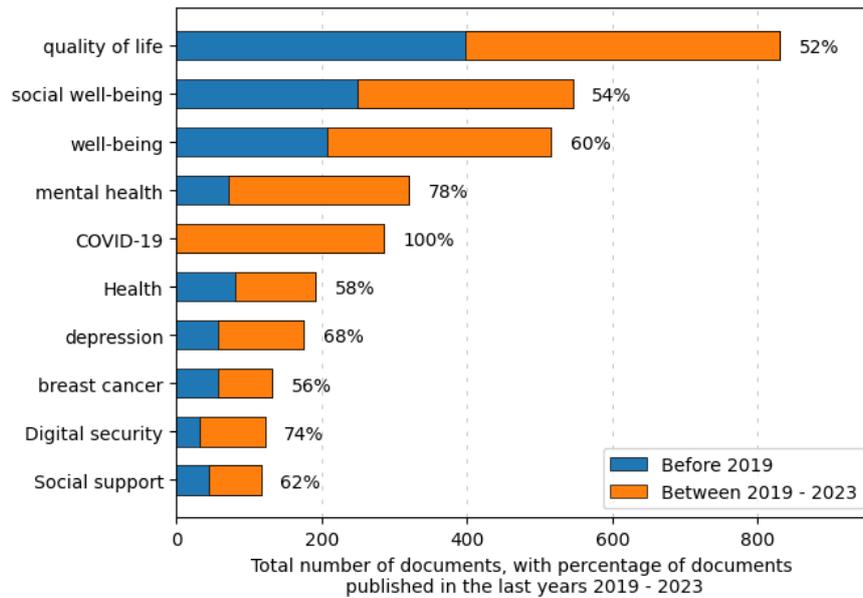


**Author Keywords**

Author keywords refer to the terms used by authors to represent the content of their documents accurately. Most authors mention their studies topic as a keyword in their document. The authors’ keywords aided readers and future researchers in identifying the publications’ significant ideas and arguments (Roslan et al., 2023). Numerous electronic search engines, databases, and journal websites use author keywords to identify and deliver relevant articles to prospective readers. Readers need to understand that keywords produce links to other relevant publications (Abdullah et al., 2022). In this case, ScientoPy might track the evolution or trends of a studies topic or search argument using the authors’ keywords. This section analyses the authors’ top keywords in previous research on social well-being. To complete the procedure, the authors’ keywords were used to find research trends. It has been suggested to use an appropriate term, such as "social well-being" OR "digital security". These manual tasks assist in organizing data and eliminating term duplication, resulting in more robust results.

Figure 9 exhibits 10 previously researched keywords. As illustrated in Figure 9, the top three terms used were “quality of life,” “social well-being,” and “well-being”. Data processing was given importance to this broad phrase directly related to the subject. Important keywords are made available to assist readers and future researchers in determining which ones to employ while conducting document analysis (Abdullah et al., 2022). While Figure 9 illustrates the first 10 keywords, ScientoPy enables us to view an infinite number of keywords (Ruiz-Rosero et al. 2019). Also, Figure 9 displays the percentage of documents published in the preceding five years (2019– 2023) to illustrate a relative increase. We can observe from this indicator that “covid-19” has the highest proportion with 286 (100%) publication between 2019-2023. It is self-evident that the issue has increased significantly over the last five years compared to other keywords. Additionally, “mental health” also has been a hot topic, with 248 (78%) publications published from 2019 to 2023. Thus, these studies depicted that covid-19 and mental health has sparked scholars’ curiosity.

**Figure 9**  
*Author Keywords Bar Trends*

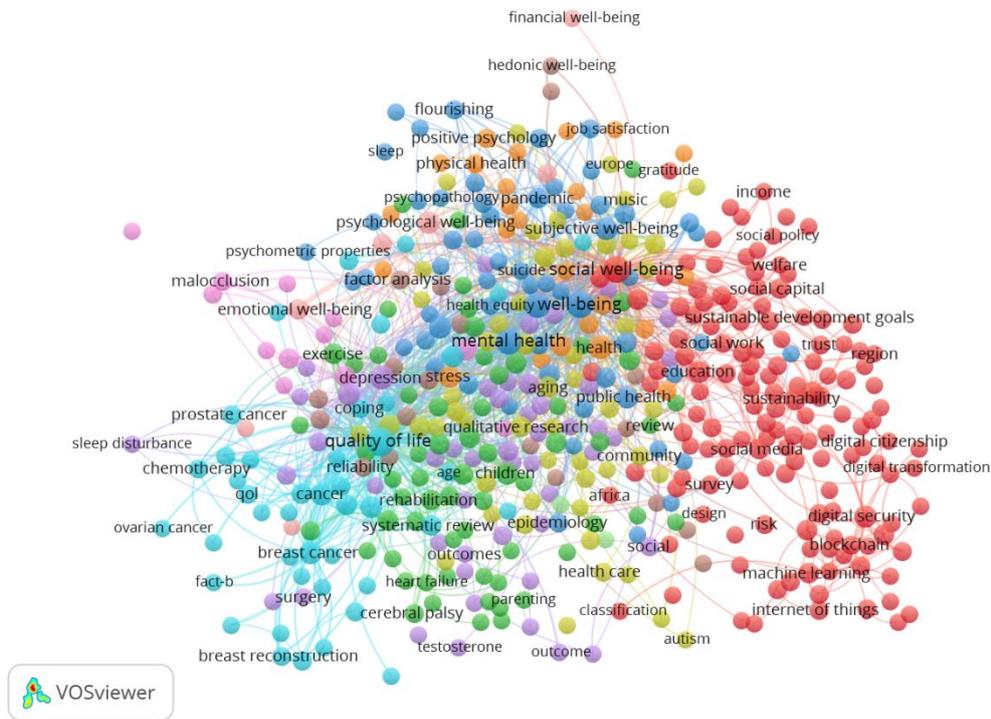


Furthermore, these studies used cluster mapping to ascertain the co-occurrence of the authors’ keywords to denote themes or issues relevant to social well-being research (see Figure 10). Before using the VOSViewer to generate a network map, the dataset was pre-processed with ScientoPy (a combination of Scopus and WoS metadata). Additionally, these studies used a thesaurus file to map the co-occurrence of the authors’ terms before mapping them. Concatenating related terms, spelling variants, and singular or plural terms requires the use of the thesaurus file.

Based on Figure 10, it can be deduced that the most frequently used keywords were “social well-being”, “well-being,” “quality of life,” “sustainability,” and “mental health.” These keywords are inextricably linked. The keyword “social well-being” was grouped in the same clusters (red colors) with “education,” and “sustainability.” “Social well-being” is also closely linked to “mental health.”

**Figure 10**

*Network Visualization of The Co-occurrence*



## DISCUSSION

The field of social well-being has undergone significant evolution from 1968 to 2023. According to Saha et al. (2020), a bibliometric perspective provides insights into publication trends, influential authors, and institutional contributions within this discipline. This analysis synthesizes key findings from recent studies and highlights the trajectory of research in social well-being over the decades.

During the late 1960s and 1970s, societal movements such as civil rights and women's liberation began to gain momentum, leading to greater inclusivity and equality. These movements collectively reshaped societal attitudes toward marginalized groups, fostering greater inclusivity while inspiring future activism. This effect would naturally lead to increased social tensions at the time (Slyusarevskyy et al., 2021). As a result, legal and social reforms were achieved, and fundamentally changed public consciousness and furthered ongoing efforts to achieve a more just and equitable society for all.

However, economic instability in the 1980s impacted social well-being, with rising inequality and poverty rates. The impact of social well-being made society at that time focused solely on work (McArthur, 2023). Despite some economic recovery during the 1980s, poverty rates remained stubbornly high and declined more slowly than in previous decades. This was largely due to a widening wage gap: real wages for low-wage, less-skilled workers declined significantly, while higher-wage workers saw real wage increases. This wage polarization made it harder for low-income families to improve their economic status despite increased labor market participation.

The advent of the internet and social media in the 1990s revolutionized communication and connectivity, transforming how we interact with others. At that time, society was easy to interact with and enjoyed a high level of social well-being. While social media has its benefits such as increased social support and networking opportunities, it has also been linked to higher rates of loneliness and depression (Meshi & Ellithorpe, 2021).

In recent years, mental health awareness has gained traction, leading to more open discussions about issues like anxiety, depression, and burnout. There has been a shift towards holistic well-being, with a greater emphasis on self-care practices and work-life balance. The same is true of the events that occurred during the COVID-19 pandemic in 2020, which further highlighted the importance of social connections and community support during times of crisis. This is worthy of attention by constantly raising awareness about the importance of social well-being (Nomaguchi & Milkie, 2020). In essence, the COVID-19 pandemic served as a powerful reminder that social connection and strong community support are not just desirable but are fundamental pillars of individual and societal well-being, particularly when facing unprecedented challenges.

### **CONCLUSION**

Social well-being actions play a vital role in improving our social well-being. By reflecting on our experiences, analyzing information, and making informed decisions, we can become more self-aware, empathetic, and resilient individuals. Through this process of self-discovery and growth, we can improve our relationships, communication skills, and overall quality of life. Therefore, it is important to regularly take time to reflect, draw meaningful conclusions, and watch our social well-being grow.

By continuing to explore these important topics, this research looks at how often specific articles are published and how often they use certain keywords to see their use in social well-being research. In the meantime, this study can yield some results from its analysis. The results indicated that publications on social well-being research have increased significantly since 1968. Notably, WoS publications have expanded consistently compared to Scopus, with a sharp increase following 2000. With over 650 publications, psychology has been identified as the most thoroughly explored research area. United States, United Kingdom, and Australia have been designated as the research area's top three publishing countries. Joshanloo, M was the most productive authors and often published in social well-being research, followed by Cella, D and Bohlmeijer, E.T With 49 publications, scholars from Russian Academy of Sciences in Russian Federation were credited with the most active institution. The keyword "quality of life" is the most frequently used by previous researchers, followed by "social well-being" and "well-being." Social well-being was clustered in the same group with "education" and "sustainability." Remarkably, "social well-being" and "mental health" are inextricably intertwined.

Certain limitations to this study may help direct future studies. Publications in the Scopus and WoS databases were analyzed and mapped for this research. As a result, the findings of this studies were limited to deducing the most critical themes or keywords associated with social well-being research found in those databases. Therefore, if future research wishes to expand on the foundation or address broad subjects, a systematic literature review or meta-analysis is recommended to provide the most relevant evidence synthesis possible. Nonetheless, scholarly dissemination in the social well-being research field is provided to potential readers and future researchers keen on this topic.

This study provides a novel perspective by demonstrating that research on social well-being is not restricted to the use of social well-being alone but has drawn scholars to explore social well-being within the

framework of challenges and opportunities from research results beyond the research field. Therefore, the studies will aid researchers from various fields in identifying essential publication trend factors for systematically disseminating social well-being research. In addition, this study findings motivate researchers to collaborate and develop new research paradigms for evaluating social well-being research by analyzing the most often-used terms through empirical studies.

#### ACKNOWLEDGMENT

This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

#### REFERENCES

- Abdullah, K. H., & Othman, S. Z. (2022). A bibliometric mapping of five decades research in telecommuting. *International Journal of Information Science and Management*, 20(2), 229-245.
- Abdullah, K. H., Hashim, M. N., & Abd Aziz, F. S. (2020). A 39 years (1980-2019) bibliometric analysis of safety leadership research. *TEST Engineering and Management*, 83, 4526-4542.
- Abdullah, K. H., Roslan, M. F., & Ilias, M. (2023). A bibliometric analysis of literature review articles published by Malaysian authors. *Jurnal Penyelidikan Sains Sosial (JOSSR)*, 6(18), 8-26.
- Abdullah, K. H., Sofyan, D., Roslan, M. F., Shukri, N. N. M., & Hammood, W. A. (2022). Biodiversity management: A bibliometric analysis of Scopus database publications. *Asian Journal of Fundamental and Applied Sciences*, 3(3), 41-53.
- Abdullah, K. H., Sofyan, D., Roslan, M. Z. H., & Roslan, M. F. (2022). Extrinsic and intrinsic motivation: bibliometric analysis-derived insights. *Jurnal Penyelidikan Sains Sosial (JOSSR)*, 5(17), 50-62.
- Farooq, M. S., Tehseen, R., & Omer, U. (2021). Blockchain based online examination assessment models for educational. *VFAST Transactions on Software Engineering*, 9(3), 57-67.
- Gazali, N., Cendra, R., Saputra, H. D., Saad, N. B., Winarno, M. E., Hanief, Y. N., Abdullah, K.H., Shahril, M.I., & Tulyakul, S. (2021). Trends and patterns of 2013 curriculum research in physical education: Bibliometric analysis from 2013-2020. *Multilateral: Jurnal Pendidikan Jasmani dan Olahraga*, 20(3), 179-199.
- Hamilton, L., & Gross, B. (2021). *How has the pandemic affected students' social-emotional well-being? A review of the evidence to date*. Center on Reinventing Public Education.
- Holt-Lunstad, J. (2024). Social connection as a critical factor for mental and physical health: evidence, trends, challenges, and future implications. *World Psychiatry*, 23(3), 312-332.
- Hui, B. P., Ng, J. C., Berzaghi, E., Cunningham-Amos, L. A., & Kogan, A. (2020). Rewards of kindness? A meta-analysis of the link between prosociality and well-being. *Psychological Bulletin*, 146(12), 1084.
- Iyer, S.S., Seetharaman, A., Maddulety, K. (2020). Education transformation using block chain technology - A student centric model. In Sharma, S.K., Dwivedi, Y.K., Metri, B., Rana, N.P. (eds) Re-imagining diffusion and adoption of information technology and systems: A continuing conversation. TDIT 2020. IFIP Advances in Information and Communication Technology, vol 617. Springer, Cham. [https://doi.org/10.1007/978-3-030-64849-7\\_19](https://doi.org/10.1007/978-3-030-64849-7_19)
- Leydesdorff, L., & Vaughn, C. (2006). Co-occurrence matrices and their applications in information science: Extending ACA to the web environment. *Journal of the American Society for Information Science and Technology*, 57(12), 1616-1628. <https://doi.org/10.1002/asi.20377>
- Livingston, V., Jackson-Nevels, B., & Reddy, V. V. (2022). Social, cultural, and economic determinants of well-being. *Encyclopedia*, 2(3), 1183-1199.

- Martín-Martín, A., Thelwall, M., Orduna-Malea, E., & Delgado López-Cózar, E. (2021). Google scholar, microsoft academic, scopus, dimensions, web of science, and open citations' COCI: A multidisciplinary comparison of coverage via citations. *Scientometrics*, *126*(1), 871-906.
- McArthur, J. (2023). Rethinking authentic assessment: work, well-being, and society. *Higher education*, *85*(1), 85-101.
- Meshi, D., & Ellithorpe, M. E. (2021). Problematic social media use and social support received in real-life versus on social media: Associations with depression, anxiety and social isolation. *Addictive Behaviors*, *119*, 106949.
- Nomaguchi, K., & Milkie, M. A. (2020). Parenthood and well-being: A decade in review. *Journal of Marriage and Family*, *82*(1), 198-223.
- Pabon, C. D. R., Sánchez-Benitez, J., Ruiz-Rosero, J., & Ramirez-Gonzalez, G. (2020). Coffee crop science metric: A review. *Coffee Science*, *15*(1), 1-11. <https://doi.org/10.25186/v15i.1693>
- Pranckutė, R. (2021). Web of Science (WoS) and Scopus: The titans of bibliographic information in today's academic world. *Publications*, *9*(1), 12-59.
- Roslan, M. F., Abd Razak, M. R., Abdullah, K. H., Ishak, N. S., & Ishak, N. S. (2023). A bibliometric analysis of work stress research: Three decades (1992-2022) publication Trends. *International Journal of Advanced Research in Education and Society*, *5*(1), 1-14.
- Roslan, M. F., Abd Razak, M. R., Abdullah, K. H., & Ishak, N. S. (2023). Analyzing the evolution of teacher leadership research in 32 Years (1990-2022): A bibliometric analysis. *Asian Journal of Research in Education and Social Sciences*, *5*(2), 209-224.
- Roslan, M. F., Ishak, N. S., Abdullah, K. H., Hamid, A. A., & Mohaidin, A. M. (2024). Trends and Tracking Topics in Predictive Maintenance Research: A Bibliometric Analysis (2000-2023). *International Journal of Business and Technology Management*, *6*(2), 675-687.
- Ruiz-Rosero, J., Ramírez-González, G., & Viveros-Delgado, J. (2019). Software survey: ScientoPy, a scientometric tool for topics trend analysis in scientific publications. *Scientometrics*, *121*(2), 1165-1188.
- Ruiz-Rosero, J., Ramirez-Gonzalez, G., Williams, J. M., Liu, H., Khanna, R., & Pisharody, G. (2017). Internet of things: A scientometric review. *Symmetry*, *9*(12), 301-333. <https://doi.org/10.3390/sym9120301>
- Saha, V., Mani, V., & Goyal, P. (2020). Emerging trends in the literature of value co-creation: a bibliometric analysis. *Benchmarking: An International Journal*, *27*(3), 981-1002.
- Shankar, S.K., Mukesh, R., Badrinarayanan, M.K. (2021). Challenges in adoption of secure digitization of graduate assessments: Scope for blockchain technologies. In Tuba, M., Akashe, S., Joshi, A. (eds), *ICT Systems and Sustainability. Advances in Intelligent Systems and Computing* (vol 1270, pp. 1-9). Springer. [https://doi.org/10.1007/978-981-15-8289-9\\_1](https://doi.org/10.1007/978-981-15-8289-9_1)
- Slyusarevskyy<sup>1</sup>, M. M., Chunikhina<sup>1</sup>, S., & Flaherty, M. (2021). Social tension as a macro indicator of the psychological well-being of society. *Wiadomości Lekarskie*, *74*(11), 2812-2817.
- Sofyan, D., & Abdullah, K. H. (2022). Scientific developments in educational innovation research in Indonesia and Malaysia: a scientometric review. *International Journal of Educational Innovation and Research*, *1*(1), 42-51.
- Sweileh, W. M. (2022). Analysis and mapping of global research publications on shift work (2012–2021). *Journal of Occupational Medicine and Toxicology*, *17*(1), 1-14. <https://doi.org/10.1186/s12995-022-00364-0>
- Tustonja, M., Stipić, D. T., Skoko, I., Čuljak, A., & Vegar, A. (2024). Active listening—a model of empathetic communication in the helping professions. *Medicina Academica Integrativa*, *1*(1), 42-47.

- Visser, M., Van Eck, N. J., & Waltman, L. (2021). Large-scale comparison of bibliographic data sources: Scopus, web of science, dimensions, crossref, and microsoft academic. *Quantitative Science Studies*, 2(1), 20-41.
- Waltman, L. (2016). A review of the literature on citation impact indicators. *Journal of Informetrics*, 10(2), 365-391. <https://doi.org/10.1016/j.joi.2016.02.007>
- Wissing, M. P., Schutte, L., Liversage, C., Entwisle, B., Gericke, M., & Keyes, C. (2021). Important goals, meanings, and relationships in flourishing and languishing states: Towards patterns of well-being. *Applied Research in Quality of Life*, 16(2), 573-609.