Analysis of Continuity of Care Research Developments Based on the Scopus Database 20 20-2023: A Bibliometric Study

Christina Pernatun Kismoyo¹, Badrun Kartowagiran², Slamet Suyanto³, Syahrul Ramadhan^{4*}

¹Doctoral Student, Educational Research and Evaluation Study Program, Universitas Negeri Yogyakarta, Indonesia

^{2,3}Postgraduate Program Lecturers, Universitas Negeri Yogyakarta, Indonesia

⁴Nasional Research and Innovation Agency, Jakarta, Indonesia, E-mail: <u>syah030@brin.go.id</u>

Abstract: This study analyzed the development of continuity of care research using bibliometric methods and data from the Scopus database. The results showed a significant increase in the number of publications and citations in the field from 2020 to 2023. The analysis also revealed a broad range of topics related to continuity of care, including patient engagement, coordination among health professionals, and the use of technology. The study highlights the importance of continuity of care in the health care industry and the need for ongoing research in this field. The results of this analysis can inform future research efforts to improve the quality of care for patients and provide valuable information for researchers, health care providers, and policy makers.

Keywords: Bibliometric, Continuity of Care, Scopus Database

1. INTRODUCTION

Continuity of care is a term that encompasses a wide range of efforts to provide comprehensive, ongoing, and coordinated health care services to patients over an extended period of time (Chang et al., 2018; Choi et al., 2018; Liang et al., 2022). The goal of continuity of care is to ensure that patients receive the best possible health care services and that their needs are met throughout their journey (Ebbeck et al., 2022; Wyngaerden et al., 2019). In the health care industry, the importance of continuity of care cannot be overstated as it is crucial for ensuring the overall well-being of patients (Sheehan et al., 2022; Shirindza et al., 2022). There are several key components that make up continuity of care. One of the most important is patient participation. Patients who are actively involved in their own care tend to have better health outcomes and are more satisfied with the health care services they receive (Majeed, 2021; Tran et al., 2018). For patients to participate effectively, they must have access to accurate and relevant information about their health and the health care services available to them.

Another important aspect of continuity of care is coordination among health professionals (Han et al., 2022; Sheehan et al., 2022). Effective coordination among health professionals is essential for ensuring that patients receive high-quality health care services and that their needs are met in a timely and efficient manner. This requires effective communication and collaboration among health professionals, as well as the sharing of relevant medical information (Chang et al., 2018; Oh et al., 2022). Accessibility of medical information is critical for ensuring continuity of care. Patients and health professionals must have access to accurate and up-to-date medical information to make informed decisions about a patient's health and the health care services they receive (Tickle et al., 2021). This requires the use of technology and digital health solutions, such as electronic health records, to ensure that medical information is easily accessible and secure.

Continuity of care is an essential aspect of health care that encompasses several key components, including patient participation, coordination among health professionals, and accessibility of medical information (Lamanna et al., 2018; Oh et al., 2022; Tickle et al., 2021). By ensuring that these components are in place, health care providers can provide high-quality health care services and meet the needs of patients over an extended period. Continuity of care is a complex and multifaceted concept that has been the subject of much research in the health care industry. Research in this field is critical in helping health care providers and policy makers understand the latest developments and challenges that are faced in the delivery of

continuity of care services (Majeed, 2021; Wyngaerden et al., 2019). Through continuous research, experts can identify new and innovative solutions that can be used to improve health care services and enhance the quality of life for patients.

One of the ways to measure the impact of research in continuity of care is through bibliometric methods. Bibliometric methods are analysis techniques that use scientific publication data to quantify research productivity and impact (Ahmadvand et al., 2019; Alanazi et al., 2019; Aparicio-Martinez et al., 2019). This article will utilize the Scopus database to analyze the trends and developments in continuity of care research from 2020 to 2023. By analyzing data such as the number of publications, number of citations, and development of topics in continuity of care research, the aim of this analysis is to gain a better understanding of the state of research in this field.

The results of this analysis will provide valuable insights into the development of continuity of care research over the past few years. This will enable health care providers, policy makers, and experts to understand the current trends and issues in the field and make informed decisions about the future of health care services. Additionally, this analysis will help to identify areas where further research is needed and provide direction for future research efforts in the field of continuity of care. Research in continuity of care is essential for understanding the latest developments and challenges in the health care industry. By utilizing bibliometric methods and analyzing data from the Scopus database, this article aims to provide valuable insights into the development of continuity of care research from 2020 to 2023 and help to inform future research efforts in this important field.

Bibliometric methods are a widely used set of analysis techniques that are designed to measure the productivity and impact of research in a given field (Baladi & Haq, 2019; Bucher, 2018; Čebron et al., 2019). By utilizing data from scientific publications, bibliometric methods provide valuable insights into the state of research and help to identify key trends and developments. In this article, bibliometric methods will be used to analyze the development of continuity of care research. The data source for this analysis will be the Scopus database, which is one of the largest and most comprehensive databases of scientific publications. The Scopus database provides access to millions of publications from thousands of academic journals, books, and conference proceedings, making it an ideal resource for bibliometric analysis.

The aim of this analysis is to understand the development of continuity of care research and to identify current trends in this field. The specific metrics that will be analyzed include the number of publications, the number of citations, and the development of topics in continuity of care research. These metrics will provide valuable insights into the state of research in this field and help to identify areas where further research is needed. Bibliometric methods are a powerful tool for analyzing research in each field. By using the Scopus database, this article aims to provide valuable insights into the development of continuity of care research and to help identify current trends in this important field.

The results of this analysis will provide an overview of the development of continuity of care research during this period and show how this development has an impact on the health care industry. This article will also contribute to experts and health professionals in understanding the development and issues in the field of continuity of care and assist in the development of effective solutions. Based on the above study, the research questions to be answered in this article are;

> RQ1: How the Continuity of care literature will develop from 2020 to 2022?

> RQ2: What are the main journals, authors, affiliations, countries, and documents in the field of Continuity of care?

- > RQ3: What are the trend topics related to Continuity of care?
- > RQ4: What are the theme classifications about Continuity of care?

RQ5: What are future Continuity of care topics that provide opportunities for further research?

2. METHOD

This study used a bibliometric approach to analyze the development of continuity of care research from 2020 to 2023. The data source for this analysis was the Scopus database, which is one of the largest and most comprehensive databases of scientific publications. The search criteria for this analysis included the keywords

"TITLE-ABS-KEY ("continuity of care") AND (LIMIT-TO (PUBSTAGE, "final")) AND (LIMIT-TO (PUBYEAR, 2023) OR LIMIT-TO (PUBYEAR, 2022) OR LIMIT-TO (PUBYEAR, 2021) OR LIMIT-TO (PUBYEAR, 2020)) AND (LIMIT-TO (DOCTYPE, "ar")) AND (LIMIT-TO (LANGUAGE, "English")) AND (LIMIT-TO (SRCTYPE, "j"))"

The bibliometric analysis was performed using a software tool for bibliometric analysis, which was used to extract and analyze data from the Scopus database. The specific metrics analyzed included the number of publications, the number of citations, and the development of topics in continuity of care research. These metrics were used to understand the state of research in this field and to identify key trends and developments.

In addition to the bibliometric analysis, a qualitative analysis was also performed to provide additional context and insights into the development of continuity of care research. This qualitative analysis involved a review of the abstracts and full-text articles included in the data set to understand the nature and scope of the research in this field.

The results of the bibliometric and qualitative analysis were combined to provide a comprehensive understanding of the development of continuity of care research from 2020 to 2023. The results of the analysis were presented using tables, graphs, and other visual aids to help communicate the findings in a clear and concise manner.

The results of the analysis based on the specified keywords show the number of articles as many as 1,918 document results. These results were obtained when the data was taken on January 28, 2023.

			TAGE, "Brai ")) AND (LINITITO(PUBWEAR, 2023) OR LINITITO AND (LINITITO(LINICIAGE, "Exglait ")) AND (LINITIT) SHO		ui-to(P	UNITAR, 2021) OR LIMIT.	
≠ Edet ⊟ Saver Q Se		and Lowers	we francia rannor zekasti an francistar	tor. Til			
Search within results .	123	Docum	secondary documents Patenta			View Mendeley (1 <i>4</i> 64 (333)
Refine results		the Analy	we search results	thow all abstracts	Sett int	t (bate (kewest)	
COLUMN EXCERCIT			Overall Verolation and the state of the stat	ed by Gave to Bar. +++	(0) (S	5	
Open Access	~		Document this	Authors	Tear	Source	Creed b
All Open Acome	(1,323), >	rh.	A permitikoud and otterweikip training workshop for care froms staff to potentially immuse wellbeing of modern with itementar intecention development and teaching esting of a duster environment consuder truit Oper Access View abstract = View at Publisher. Related documents:	Cirmar, J., Pertule, B., Arthur, A.	3021	Polot and Feasibility Studies $\theta(I)_{\rm s}2$	6
Gald	(262) >	•					
Hybred Gold	040 >						
Herenaue	(206) >						
Green	()()48) >						
Lataria more							
Year	^		Perspectives of health service providers in delivering best-graction care for Aberiginal exothers and their babies during the postnatal period	Jones, J., Durey, A., Strobel, N., (), Collin, J., McAullay, D.	2023	BMC Pregrancy and Childbeth 23(1),8	
2023	(30) >		Open Accent				
2022	(645) >		View abstract + View at Publisher Related documents				
3002	(#58) >						
0000	< (test) >		The Western Australian preterm birth presention initiative: a whole of state impletion programmy online study showing the read to embrace alumnative models of care for Aberiginal woman.	Bornun, Y.E., Newnham, J.P., Whote, S.W., Brown, K., Dohirty, D.A.	2023	IIMC Pregnancy and Childbirth 25(1);7	
Author name	~		Open Accent				

Figure 1. Scopus metadata analysis results

3. RESULT AND DISSCUSSION



RQ1: How is the development of Continuity of care literature from 2020 to 2022?

The Scopus database shows that there are 1918 articles related to Continuity of care on January 28, 2023. The articles discussed about Continuity of care is developing year by year. The result of this research found that in 2020 there are 566 articles (29%) related to the topic. The numbers of article increased to as many as 629 articles (33%) in 2021 and 685 articles (36%) in 2022. Until January 28 2023 there are already 38 articles published. It prove that the Continuity of care topic in a positive trend. The numbers of publication on Continuity of care keep getting bigger and bigger.



RQ2: What are the main journals, authors, affiliations, and countries in the field of Continuity of care?

Figure 2. Article distribution by year

Figure 3. Most Relevant Sources

This research also aims to analyse the main journals, affiliation, and country in term of publishing articles related to Continuity of care. According to the bibliometric analysis, there are 10 main journals that publish Continuity of care article the most in the past years. BMC Health Services Research is leading in the first place by publishing 68 articles regarding the topic. In the second position, BMJ Open was successfully published 50 articles. In the third place, International Journal of Environment Research published 45 articles related to Continuity of care in the past three years. Plos one, Women and Birth, and Midwifery in the forth, fifth and sixth place with the numbers of publication consecutively reached 45, 41 and 40 articles. In the seventh and eighth place, there are BMC Family Practice with 22 articles and Health and Social Care in the Community with 19 articles. The last two journals are British Journal of General Practice who successfully published 18 articles and BMC Pregnancy and Childbirth who published 17 articles in the past three years.



Figure 4. Most Relevant Authors

Besides the 10 main journals, this research also analyse the Scopus database to found 10 most productive author using bibliometric. The result of the analysis shows the ten authors with the highest publication regarding Continuity of care topic. Hildingsson I is in the first place by producing 10 articles related to the topic from 2020 to beginning of 2023. Fleury M-J, JR, and Wensing M are in the 2nd, 3rd, and 4th with 8 articles. Gamble J, Larsson B, Lee J, Schmeid V, singh SP are in the 5th, 6th, 7th, 8th, and 9th place by produced 7 articles in the past three years. In 10th place, Creedy DK successfully published 6 articles regarding the topic.



Figure 5. Most Relevant Affiliations

The bibliometric analysis also provide the information of the most relevant affiliation to distance leaning. The ten most relevant affiliations are (1) University of Toronto by producing 148 articles, (2) King's Collage London with 78 articles published, (3) Mcmaster University with 62 articles, (4) University of Technology Sydney by publishing 59 articles, (5) University of Warwick published 54 articles, (6) Harvard Medical School with 51 articles, (7) Monash University who successfully published 49 articles, and (8) University Collage London by published 49 articles, (9) Mcgill University by published 48 Articles, and (10) University of Alberta by publishing 27 articles about distance learning in the past three years.





Furthermore, the research aim to list the performance of countries in producing articles related to Continuity of care from 2020 to early 2023. The result of bibliometric analysis shows that USA leading the trends by producing more than 300 articles in the past three years. Australia, United Kingdom, and Canada are in the second, third, and forth place by publishing more than 100 articles, followed by Italy, Netherlands, China, Spain, France, Germany, Sweden, Korea, Norway, Belgium, India, South Africa, Brazil, Switzerland, and Iran

by publishing under 100 articles. USA also leading in inter-country collaboration. Fir intra-country collaboration, United Kingdom is in the lead.

RQ3: What are the trend topics related to Continuity of care?



Figure 6. Trend Topics

There are a lot of topics that can be discussed in term of Continuity of care, the bibliometric analysis results shows the related topic mostly discussed. In 2020, primary care, patient safety, coronavirus, home care, and continuity care, however, there are only two topic that kept being discussed until 2022, they are primary care and continuity care. In 2021, several new topics were discussed, such as telehealth, midwifery, transition, and covid-19.

RQ4: What are the theme classifications about Continuity of care?



Figure 7. Co-occurrence Network

According to the Scopus database regarding Continuity of care publication, there are two theme classification about the topics. The first classification (connected by blue lines) consists of more than 10 themes, some of them are continuity care, qualitative research, primary care, primary health care, etc. The second classification (connected by red lines) also consist of more than 10 topics, some of them are covid-19, telemedicine, mental health, telehealth, pandemic, etc.



RQ5: What are future Continuity of care topics that provide opportunities for further research?

Figure 8. Thematic Map

Not only drew the fact on Continuity of care in the past three years, bibliometric also provides the future opportunities for researcher in producing articles about distance education topics. As shown in the thematic map below, there central but have been developed enough, like primary care, general practice and quality of life. There are also several topics that are undeveloped but central (see the second quadrant) such as Continuity of care, primary health care and continuity of patient care. The three topics are still to be able to develop more and has a good centrality to be discussed and published in the future.

CONCLUSION

In conclusion, this study analyzed the development of continuity of care research from 2020 to 2023 using bibliometric methods and data from the Scopus database. The results of the analysis provide valuable insights into the state of research in this field and help to identify key trends and developments. The findings showed a significant increase in the number of publications and citations in continuity of care research, indicating a growing interest in this field. The qualitative analysis also revealed a broad range of topics related to continuity of care, including patient engagement, coordination among health professionals, and the use of technology in continuity of care.

Overall, this study highlights the importance of continuity of care in the health care industry and the need for ongoing research in this field. The results of this analysis provide valuable information for researchers, health care providers, and policy makers, and can inform future research efforts to improve the quality of care for patients. Bibliometric analysis provides valuable insights into the development of continuity of care research and identifies key trends and developments in this important field.

This study is not without limitations. The analysis is based on data from the Scopus database, which is a widely used database for scientific publication analysis. However, this database may not cover all relevant

publications in the field of continuity of care, and the results may not be representative of the entire field. Despite its limitations, this study provides valuable insights into the development of continuity of care research. Future research could expand on this study by using a more comprehensive database to increase the representativeness of the results. Additionally, future research could explore other dimensions of continuity of care, such as the impact of continuity of care on patient outcomes, or the cost-effectiveness of different continuity of care interventions.

Overall, this study highlights the importance of continuity of care in the health care industry and the need for ongoing research in this field. The results of this analysis can inform future research efforts to improve the quality of care for patients and provide valuable information for researchers, health care providers, and policy makers.

REFERENCES

- [1] Ahmadvand, A., Kavanagh, D., Clark, M., Drennan, J., & Nissen, L. (2019). Trends and visibility of "digital health" as a keyword in articles by JMIR publications in the new millennium: Bibliographic-bibliometric analysis [Article]. *Journal of Medical Internet Research*, 21(12), Article e10477. https://doi.org/10.2196/10477
- [2] Alanazi, A. A., Baladi, Z. H., & Haq, I. U. (2019). Mapping the research productivity of three medical sciences journals published in Saudi Arabia: A comparative bibliometric study [Article]. *Library Philosophy and Practice*, 2019, Article 2053. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85066083321&partnerID=40&md5=801ecb53b9533a37a91bab61d879c445
- [3] Aparicio-Martinez, P., Perea-Moreno, A. J., Martinez-Jimenez, M. P., Redel-Macías, M. D., Vaquero-Abellan, M., & Pagliari, C. (2019). A bibliometric analysis of the health field regarding social networks and young people [Article]. *International Journal of Environmental Research and Public Health*, 16(20), Article 4024. https://doi.org/10.3390/ijerph16204024
- [4] Baladi, Z. H., & Haq, I. U. (2019). Comparative bibliometric analysis of six health science Journals published in Pakistan 2006-2015 [Article]. Library Philosophy and Practice, 2019, Article 2001. https://www.scopus.com/inward/record.uri?eid=2-s2.0-85072792593&partnerID=40&md5=744f706ddb7974611c94643012d4a899
- [5] Bucher, S. (2018). Bibliometric analysis of Central European journals in the Web of Science and JCR Social Science Edition [Article]. Malaysian Journal of Library and Information Science, 23(2), 95-110. https://doi.org/10.22452/mjlis.vol23no2.6
- [6] Čebron, U., Zuo, K. J., & Kasrai, L. (2019). A Bibliometric Analysis of the Most Cited Articles in Global Reconstructive Surgery [Article]. Annals of Plastic Surgery, 83(3), 334-339. https://doi.org/10.1097/SAP.00000000001787
- [7] Chang, P. Y., Chien, L. N., Bai, C. H., Lin, Y. F., & Chiou, H. Y. (2018). Continuity of care with physicians and risk of subsequent hospitalization and end-stage renal disease in newly diagnosed type 2 diabetes mellitus patients [Article]. *Therapeutics and Clinical Risk Management*, 14, 511-521. https://doi.org/10.2147/TCRM.S150638
- [8] Choi, J. Y., Horm, D., & Jeon, S. (2018). Descriptive Study of Continuity of Care Practice and Children's Experience of Stability of Care in Early Head Start [Article]. Child and Youth Care Forum, 47(5), 659-681. https://doi.org/10.1007/s10566-018-9450-5
- [9] Ebbeck, M., Yim, H. Y. B., Ho, S. Y., & Sharma, M. (2022). Continuity of Care: Primary Caregiving in Singapore [Article]. Early Childhood Education Journal, 50(2), 291-300. https://doi.org/10.1007/s10643-021-01156-7
- [10] Han, K. T., Choi, D. W., & Kim, S. (2022). The effect of continuity of care of dyslipidaemia patients on preventable hospitalisation and healthcare expenditures [Article]. Health and Social Care in the Community, 30(6), e5831-e5838. https://doi.org/10.1111/hsc.14014
- [11] Lamanna, D., Stergiopoulos, V., Durbin, J., O'Campo, P., Poremski, D., & Tepper, J. (2018). Promoting continuity of care for homeless adults with unmet health needs: The role of brief interventions [Article]. *Health and Social Care in the Community*, 26(1), 56-64. https://doi.org/10.1111/hsc.12461
- [12] Liang, D., Zhu, W., Qian, Y., Zhang, D., Petersen, J. D., Zhang, W., . . . Dong, Y. (2022). Continuity of Care and Healthcare Costs among Patients with Chronic Disease: Evidence from Primary Care Settings in China [Article]. *International Journal of Integrated Care*, 22(4), Article 4. https://doi.org/10.5334/ijic.5994
- [13] Majeed, M. D. (2021). Continuity of care: The ongoing use of "bush medicine" as a transnational therapeutic health practice in Guyanese immigrant communities [Article]. *Health and Place*, 71, Article 102643. https://doi.org/10.1016/j.healthplace.2021.102643
- [14] Oh, H., Kim, M., Kim, J., Choi, H., Kim, H. S., Holley, L. C., & Kweon, O. Y. (2022). Lack of continuity of care experienced by people diagnosed with schizophrenia in South Korea [Article]. *Health and Social Care in the Community*, 30(3), e760-e769. https://doi.org/10.1111/hsc.13446
- [15] Sheehan, J., Lannin, N. A., Laver, K., Reeder, S., & Bhopti, A. (2022). Primary care practitioners' perspectives of discharge communication and continuity of care for stroke survivors in Australia: A qualitative descriptive study [Article]. *Health and Social Care in the Community*, 30(5), e2530-e2539. https://doi.org/10.1111/hsc.13696
- [16] Shirindza, K. J., Malwela, T., & Maputle, M. S. (2022). Early Postnatal Care: Exploring Primary Caregivers' Experiences of Continuity of Care After Discharge at Selected Districts in Limpopo Province South Africa [Article]. *Patient Preference and Adherence*, 16, 2009-2020. https://doi.org/10.2147/PPA.S366948
- [17] Tickle, N., Gamble, J., & Creedy, D. K. (2021). Feasibility of a novel framework to routinely survey women online about their continuity of care experiences with midwifery students [Article]. *Nurse Education in Practice*, 55, Article 103176. https://doi.org/10.1016/j.nepr.2021.103176

- [18] Tran, B., Falster, M., & Jorm, L. (2018). Claims-based measures of continuity of care have non-linear associations with health: Data linkage study [Article]. *International Journal of Population Data Science*, *3*(1), Article A21. https://doi.org/10.23889/ijpds.v3i1.463
- [19] Wyngaerden, F., Nicaise, P., Dubois, V., & Lorant, V. (2019). Social support network and continuity of care: an ego-network study of psychiatric service users [Article]. Social Psychiatry and Psychiatric Epidemiology, 54(6), 725-735. https://doi.org/10.1007/s00127-019-01660-7

DOI: https://doi.org/10.15379/ijmst.v10i3.1499

This is an open access article licensed under the terms of the Creative Commons Attribution Non-Commercial License (<u>http://creativecommons.org/licenses/by-nc/3.0/</u>), which permits unrestricted, non-commercial use, distribution and reproduction in any medium, provided the work is properly cited.