



## Research Article

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# EVALUATION OF PRIMARY HEALTH CARE JOURNALS BİRİNCİ BASAMAK SAĞLIK HİZMETİ DERGİLERİNİN DEĞERLENDİRİLMESİ

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## Öz

**Amaç:** Aile Hekimliği müfredatı, temeli ve hakemli dergileri olan bir akademik disiplindir. Bilimsel dergilerin içeriklerinin takibi ve değerlendirilmesi, sürekli artan yayın sayısı göz önünde bulundurulduğunda zor hale gelmektedir. Bu sebeple akademik verilerin takibinde yardımcı olmak amacıyla 'Birinci Basamak Sağlık Hizmeti'(PHC) ile ilgili bilimsel dergileri değerlendirdik.

**Materyal ve Metot:** 09/11/2021 tarihinde Web of Science (WoS) veri tabanında 'PHC' kategorisinde bulunan 27 dergi değerlendirildi. Makale İşlem Ücretleri (APC), Açık Erişim (OA) durumları, menşeleri, yıllık yayın sayıları, frekansları ve türleri, yayın dilleri, Dergi Atıf Göstergeleri (JCI), SCImago Dergi Sıralamaları (SJR), Publons verileri, H-index 'leri ve yayın başlığında 'COVID-19' terminolojisine yer verme durumları incelendi.  $p < 0.05$  anlamlı kabul edildi. Spearman korelasyon analizi kullanıldı.

**Bulgular:** WoS'da PHC kapsamında 18 adet SCIE (Science Citation Index Expanded) ve 9 adet ESCI (Emerging Sources Citation Index) dergi olduğu görüldü. APC' nin 0-4545 Amerikan Doları, yıllık dergi sayısının 1-24, H-Index'in 8-120, SJR'nin 0,17-1,92 aralığında değiştiği, ESCI dergilerin tamamının, toplamda 20 derginin OA olduğu görüldü. SCIE dergilerin JCI, H-Index ve SJR değerlerinin daha yüksek olduğu saptandı. Başlığında 'COVID-19' terminolojisi içeren yayın sayısı ile dergi etki faktörlerinin ters orantılı olduğu saptandı.

**Sonuç:** : SCIE-ESCI dergileri arasında geçerli olan genel farklılıkların PHC kategorisindeki dergilerde de olduğu, bu durumun H-Index, SJR 2020, JCI 2019 ve 2020 gibi göstergelere yansıdığı görülmektedir. ESCI dergilerin tamamının OA oluşu dikkat çekmektedir. PHC dergilerinin alanları itibarıyla 'COVID-19' ile ilgili içeriklerden kaçındığı düşünülmektedir.

**Anahtar Kelimeler:** Birinci basamak sağlık hizmeti, aile hekimliği, indeks, Covid-19, bilimsel dergiler.

## Abstract

**Objectives:** Family Medicine is an academic discipline with a curriculum, foundation and peer-reviewed journals. The monitoring and evaluation of the contents of the scientific journal become difficult considering the increasing publication's number. So, we evaluated scientific journals about 'Primary Health Care' (PHC) to help in the follow-up of academic data.

**Materials and Methods:** On 09/11/2021, we evaluated 27 journals on the Web of Science (WoS) database in the 'PHC' category. Article Processing Charges (APC), Open Access (OA) states, origins, annual publication numbers, frequencies and types, publication languages, Journal Citation Indicators (JCI), SCImago Journal Rankings (SJR), Publons data, were examined as H-indexes including the terminology 'COVID-19'.  $P < 0.05$  was significant. Spearman correlation analysis was used.

**Results:** In WoS, there were 18 SCIE (Science Citation Index Expanded) and 9 ESCI (Emerging Sources Citation Index) journals within PHC. Also seen that APCs ranged from 0-4545 USD, the annual number of journals ranged from 1-24, H-Index ranged from 8-120, SJR ranged between 0.17-1.92, all ESCI journals, as Twenty, were found to be OA. It was determined that the JCI, H-Index and SJR values of SCIE journals were high. The number of publications containing the terminology "COVID-19" in the title and the impact factors of the journal was inversely proportional.

**Conclusion:** The differences between SCIE-ESCI journals are in the journals in the PHC category, and this situation is reflected as H-Index, SJR 2020, JCI 2019 and 2020. It is noteworthy that all ESCI journals are OA. It is thought that PHC journals avoid 'COVID-19' related content in terms of their fields.

**Keywords:** Primary health care, family practice, index, COVID-19, scientific journals.

## Introduction

Primary Health Care (PHC) is the primary health care service that forms the core of the health systems of countries and is an integral part of the social and economic development of society. It is the main element that provides an easily accessible, comprehensive and continuous health care process and is the first contact point of the society with the health system. PHC addresses the root of health problems in the community and provides preventive, curative and rehabilitative services for them. <sup>1</sup>

In order for a branch of science to be accepted as an academic discipline, it must have its own educational content, scientific journals and professional organizations that are members. Today, Family Medicine is the cornerstone of many healthcare systems in many countries around the world and has evolved as an academic discipline with its own curriculum, research-based foundation, peer-reviewed journals, and professional organizations. <sup>2</sup>

Research and experiences at the international level indicate that health systems organized on the basis of effective primary care services, where well-trained family physicians work, provide more effective health services in terms of both economic and clinical success compared to those with passive education and development. <sup>3</sup>

The World Organization of Family Doctors (WONCA) stated that the discipline of Family Medicine should be developed in order to meet the health needs of the population in the 21st century. In addition, the need for academic development was emphasized in order to ensure the transfer of knowledge, expertise and experience in the discipline of Family Medicine and to develop techniques and methodologies that address the needs of expertise. For this purpose, the European General Practice Research Network (EGPRN) was established by WONCA to support and increase the quality of studies in Family Medicine. In the application of the core competencies of the discipline, a critical and research-based approach to medical practices is shown, in this context, the importance of being able to access, read and critically evaluate medical literature, and it is recommended to maintain this through continuous learning and quality improvement. <sup>4</sup>

Considering the constantly increasing number of journals and publications, the follow-up and evaluation of the articles published in these journals, which are indispensable for scientific disciplines in the academic world, and which are taken into account in academic promotions, placements and determination of academic merit, can become more difficult. Only Web of Science (WoS) group indexes are accepted by the relevant authorities in academic promotions and placements in Turkey. This situation reduces the interest in reputable indexes such as SCOPUS and PubMed during the publication submission process and also causes our colleagues who

are trying to pursue an academic career to turn to the journals in the WoS group indexes, and these journals gain more importance.<sup>5</sup>

In this context, in our study, we evaluated the journals related to 'PHC' in order to contribute to the discipline of Family Medicine and our colleagues in line with the results of international research, the recommendations of the institutions related to the discipline, and to assist in the follow-up of academic data.

## Materials and Methods

In our study, we evaluated 18 SCIE (Science Citation Index Expanded) journals and 9 ESCI (Emerging Sources Citation Index) journals within the scope of WoS, which were in the 'PHC' category in the WoS Group Master Journal List database on 09/11/2021.

### Evaluated criteria

SCIE and ESCI are the bibliometric criteria indexes that exist within the WoS Group and contain the highest number of journal citations.<sup>5</sup> The first published citation index for published articles is the Science Citation Index (SCI), and Impact Factor (IF), which analyzes the citations received by journals and ranks them qualitatively, which has emerged from this index.<sup>6</sup> A larger web-based version of SCI is available, called SCIE.<sup>7</sup> ESCI has been published as a new database within the WoS Group. All journals submitted to WoS are first evaluated for ESCI and, if found appropriate, indexed in ESCI. The majority of ESCI journals are Open Access (OA) and journals indexed in ESCI do not have an IF (Impact Factor), but can be considered for impact factors over time based on their acceptability and citation.<sup>8</sup>

The H-Index (Hirsch index), on the other hand, is a criterion developed by Jorge E. Hirsch in 2005 and is defined as the maximum h value in which each of the aforementioned author/journal has been cited at least h times and has published at least h articles. Because citation rules vary greatly between different fields, the index works best when comparing academics working in the same field.<sup>9,10</sup>

Open-Access is a publishing model for a broad international movement and scholarly communication aimed at providing free and open online access to academic information such as publications and data. OA is divided into 3 'Diamond', 'Green' and 'Gold'. 'Diamond OA' includes journals that do not charge authors APC (Article Processing Charges) and are often funded by libraries and institutions. 'Green OA' means that the publication becomes available free of charge after the author takes it into its own archive and digitizes it. . On the other hand, 'Gold OA' means that the publication becomes available as soon as it is released from the author and can

be made in Full open and Hybrid form. Fully open access journals are available from DOAJ (Directory of Open Access Journals).<sup>11,12</sup>

SJR (SCImago Journal Rank) is a measure of the scientific impact of journals that describes the number of citations received by a journal and the importance or prestige of the journals from which the citations come. A journal's SJR is a numerical value that represents the average of citations over one year for the document published in that journal in the previous three years. High SJR values indicate high journal prestige.<sup>13</sup>

JCI (Journal Citation Indicator) is an indicator that is calculated for all journals in WoS, including those that do not have an IF and provides a common measurement across disciplines.<sup>14</sup> Publons is a free website where academics monitor, verify and share peer-reviews for scientific journals.<sup>15</sup>

The information in WoS and the data analyzed on the websites of the journals accessed through links include OA of the journals via APC, WoS and DOAJ, origin, publisher origin, the first year of publication, the annual number and frequency of publications, publication language, 2019 and 2020 JCI rate, peer-review information (on Publons.com), H-index, SJR, number and type of publications in 2019 and 2020, 'COVID-19' terminology in the title of publications made in 2020, and frequency was.<sup>11,13,15,16</sup> Fees in different currencies stated in the journals for APC were converted to US Dollars (USD) at the exchange rate at 22:00 on 10/11/2021 for ease of statistical analysis and comparison.<sup>17</sup> The descriptive data table was created by transferring the data to the MS Excel program. IBM SPSS v.20 package program was used for statistical analysis. Descriptive statistics for continuous variables; mean, standard deviation, minimum and maximum values were calculated, categorical variables were expressed as numbers and percentages. The single sample Kolmogorov-Smirnov test was used to determine whether the numerical data of the variables conformed to the normal distribution. The Chi-square test was used to determine the relationship between groups and categorical variables. The student's t-test was used to compare paired groups for numerical data if it was normally distributed, and the Mann Whitney U test was used for pairwise groups that did not fit a normal distribution.  $P < 0.05$  was considered statistically significant. Spearman correlation analysis was used to evaluate the relationship between two variables belonging to the journals.

## Results

As of 09/11/2021, when the journals in the 'PHC' category were examined in the WoS Group Master Journal List database, it was seen that there were 27 journals in this category, 18 of them SCIE and 9 of them ESCI journals. It was seen that the 'Australian Journal of Primary Health', one of the SCIE journals, was also in the SSCI (Social Sciences Citation Index). As a result of the examination, the countries with the most publications with eight journals each are the USA (United States of America) and England. English is the primary language

of publication; the APC is between 0-4545 USD, and the annual number of journals is 1-24, H-Index 's ranged from 8-120, SJR ranged from 0.17-1.92, twenty journals were found to be OA (Table 1). The difference between SCIE and ESCI journals according to their OA status was statistically significant, and all ESCI journals were found to have OA. ( $p=0.036$ ).

As a result of the comparison of SCIE and ESCI journals in terms of their features, it was determined that the bibliometric criterion indexes of SCIE journals, JCI 2019, JCI 2020, H-Index and SJR 2020, were higher, and the difference was statistically significant ( $p<0.05$ ). The frequencies, median values and the data obtained as a result of the comparison of the journals are presented in Table 2.

In 2019 and 2020, it was determined that SCIE journals published more than ESCI journals. It was determined that the journal with the highest number of publications in 2019 and 2020 was the 'Journal of Family Medicine and Primary Care', which is among the ESCI journals, and the 'European Journal of General Practice', the SCIE journal with the least number of publications. It was determined that the journal that published the least Original Research in 2019 and 2020 was 'Primary Care', which is among the SCIE journals. It was determined that six journals, 5 SCIE and 1 ESCI journal, did not include the terminology of "COVID-19" in the titles of the publications in 2020. The number of publications of the journals by categories in 2019 and 2020 is given in Table 3.

It was determined that 33.30% of the journals cooperated with 'Publons', and only the 'Australian Journal of Primary Health' allowed for public publication, transparent peer review, and signed review reports. Publons data of SCIE and ESCI journals are given in Table 4.

The annual number of publications of the journals and the total number of articles published in 2020 were found to be directly proportional ( $Rho=0.510$ ;  $p<0.001$ ) (Table 5). Similarly, the number of publications containing the 'COVID-19' terminology in the title and the total number of articles published in 2020 were found to be directly proportional ( $Rho=0.639$ ;  $p<0.001$ ). However, although it was not statistically significant, the number of publications containing the terminology "COVID-19" in the title and the journal's impact factors were found to be inversely proportional ( $Rho=-0.263$ ;  $p=0.185$ ). Some features of the journals and the results of the correlation analysis of the data for 2020 are presented in Table 5.

**Table 1.** Features of SCIE and ESCI journals

SCIE Journals	Country / Region	Primary Language	APC (USD)	Open Access Information	Issues Per Year	H Index	SJR (2020)
Australian Journal of Primary Health	Australia	English	2700	Yes	4	30	0.52
American Family Physician	USA	English	0	No	24	120	0.53
Annals of Family Medicine	USA	English	0	Yes	6	113	1.92
Atencion Primaria	Spain	Spanish	811	Yes	10	38	0.27
BMC Family Practice	England	English	2427	Yes	1	69	1.08
British Journal of General Practice	England	English	1356	No	12	101	1.01
Canadian Family Physician	Canada	English French	0	No	12	66	0.58
European Journal of General Practice	England	English	1159	Yes	4	30	1.34
Family Medicine	USA	English	0	No	10	66	0.48
Family Practice	England	English	4545	No	6	100	0.96
Journal of Family Practice	USA	English	0	No	12	93	0.17
Journal of The American Board of Family Medicine	USA	English	0	No	6	80	1.04
NPJ Primary Care Respiratory Medicine	England	English	2490	No	1	27	1.11
Physician and Sportsmedicine	England	English	0	Yes	4	44	0.65
Primary Care	England	English	0	No	4	45	0.89
Primary Care Diabetes	England	English	3150	Yes	4	34	0.74
Primary Health Care Research and Development	England	English	2525	Yes	1	27	0.55
Scandinavian Journal of Primary Health Care	Norway	English	1884	Yes	4	55	1.09
ESCI Journals	Country / Region	Primary Language	APC (USD)	Open Access Information	Issues Per Year	H Index	SJR (2020)
African Journal of Primary Health Care & Family Medicine	South Africa	English	83	Yes	1	20	0.65
Education for Primary Care	England	English	0	Yes	6	19	0.44
Family Medicine and Community Health	China	English	0	Yes	4	8	0.30
Family Medicine and Primary Care Review	Poland	Polish	202	Yes	4	8	0.21
Journal of Family Medicine and Primary Care	India	English	450	Yes	12	-	-
Journal of Primary Care and Community Health	USA	English	1200	Yes	1	22	0.55
Journal of Primary Health Care	New Zealand	English	0	Yes	4	20	0.27
Korean Journal of Family Medicine	South Korea	English	0	Yes	6	19	0.42
Medicina De Familia-Semergen	Spain	Spanish	0	Yes	1	10	0.17

**Table 2.** Comparison of SCIE and ESCI journals in terms of features

	<b>Total Journals (SCIE+ESCI)</b>	<b>SCIE</b>	<b>ESCI</b>	<b>p</b>
	<b>Median (Min-Max)</b>	<b>Median (Min-Max)</b>	<b>Median (Min-Max)</b>	
Article Processing Charges	83 (0-4545)	985 (0-4545)	0 (0-1200)	0.176
Avg. Number of Weeks from Submission to Publication	20.5 (6-53)	24 (10-38)	15 (6-53)	0.470
Issues Per Year	4 (1-24)	5 (1-24)	4 (1-12)	0.275
Issues Per Year on the Journal Site	6 (1-24)	6 (1-24)	4 (1-12)	0.433
Total Number of Articles Published in 2020	121 (31-1279)	130.50 (31-446)	81 (46-1279)	0.561
Number of Original Research in 2020	51 (0-810)	52.5 (0-256)	49 (24-810)	0.940
Number of Reviews in 2020	6 (0-93)	4 (0-48)	7 (0-93)	0.348
Number of Letters to The Editor in 2020	3 (0-90)	2.50 (0-67)	4 (0-90)	0.631
Number of Other Publications in 2020	20 (0-221)	16.50 (0-221)	26 (4-194)	0.900
Number of Publications Which Have 'COVID-19' Terminology in The Title	5 (0-92)	3.50 (0-39)	9 (0-92)	0.131
Total Number of Articles Published in 2019	87 (34-779)	125.50 (34-406)	63 (49-779)	0.118
Number of Original Research in 2019	57 (13-552)	59.50 (13-165)	46 (24-552)	0.298
Number of Reviews in 2019	5 (0-42)	5.50 (0-37)	5 (0-42)	0.940
Number of Letters to The Editor in 2019	3 (0-61)	1.50 (0-61)	5 (0-28)	0.668
Number of Other Publications in 2019	18 (0-228)	22.50 (0-228)	7 (3-157)	0.596
The Journal Citation Indicator (JCI) 2020	0.74 (0-2.16)	0.87 (0.17-2.16)	0.59 (0-0.69)	0.001*
The Journal Citation Indicator (JCI) 2019	0.74 (0-2.23)	0.85 (0.22-2.23)	0.43 (0-0.81)	0.002*
Claimed Reviews on Publons		143.50 (0-2055)	133 (0-948)	0.596
Publons User Endorsements		4.50 (0-12)	3 (0-11)	0.561
H-Index		60.50 (27-120)	19 (0-22)	0.001*
SJR 2020		0.81 (0.17-1.92)	0.3 (0-0.65)	0.002*

**Table 3.** 2019-2020 publication numbers of SCIE and ESCI journals by category

SCIE JOURNALS	Total n (%)		Original Research n (%)		Review n (%)		Letters to The Editor n (%)		Others * n (%)		Titles containing COVID-19 n (%)
	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020
Australian Journal of Primary Health	74 (100)	84 (100)	67 (90.50)	75 (89.20)	6 (8.10)	7 (8.30)	1 (1.30)	2 (2.30)	0 (0)	0 (0)	2 (2.70)
American Family Physician	250 (100)	255 (100)	72 (28.80)	72 (28.20)	0 (0,00)	0 (0,00)	32 (12.80)	30 (11.70)	146 (58.40)	153 (60)	10 (4)
Annals of Family Medicine	131 (100)	131 (100)	46 (35.10)	46 (35.10)	4 (3)	7 (5.30)	0 (0)	0 (0)	81 (61.80)	78 (59.50)	4 (3)
Atencion Primaria	173 (100)	118 (100)	75 (43.30)	58 (49.10)	0 (0)	0 (0)	51 (29.40)	33 (27.90)	47 (27.10)	27 (22.80)	8 (4.60)
BMC Family Practice	276 (100)	180 (100)	256 (92.70)	165 (91.60)	0 (0)	2 (1.10)	0 (0)	0 (0)	20 (7.20)	13 (7.20)	13 (4.70)
British Journal of General Practice	446 (100)	406 (100)	110 (27)	101 (24.80)	9 (2.20)	16 (3.90)	67 (16.40)	61 (15)	221 (54.30)	228 (56.10)	39 (9.50)
Canadian Family Physician	222 (100)	249 (100)	20 (9)	53 (21.29)	12 (5.40)	17 (6.80)	35 (15.70)	37 (14.80)	155 (69.80)	142 (57)	12 (5.40)
European Journal of General Practice	31 (100)	34 (100)	18 (58)	21 (61.70)	1 (3.20)	3 (8.80)	3 (9.60)	1 (2.90)	9 (29)	9 (26.40)	5 (16.10)
Family Medicine	179 (100)	185 (100)	40 (22.30)	57 (30.80)	0 (0)	0 (0)	14 (7.80)	26 (14)	125 (69.80)	102 (55.10)	2 (1.10)
Family Practice	130 (100)	120 (100)	105 (80.70)	102 (85)	10 (7.60)	8 (6.60)	8 (6.10)	4 (3.33)	7 (5.30)	6 (5)	4 (3)
Journal of Family Practice	143 (100)	135 (100)	44 (30.70)	35 (25.90)	0 (0)	0 (0)	0 (0)	0 (0)	99 (69.20)	100 (74)	9 (6.20)
Journal of The American Board of Family Medicine	162 (100)	142 (100)	71 (43.80)	74 (52.10)	7 (4.30)	2 (1.40)	7 (4.30)	5 (3.52)	77 (47.50)	61 (42.90)	3 (1.80)
NPJ Primary Care Respiratory Medicine	54 (100)	45 (100)	34 (62.90)	28 (62.20)	8 (14.80)	5 (11.10)	0 (0)	0 (0)	12 (22.20)	12 (26.60)	2 (3.70)
Physician and Sportsmedicine	68 (100)	72 (100)	44 (64.70)	45 (62.50)	19 (27.90)	20 (27.70)	2 (2.90)	5 (6.90)	3 (4.40)	2 (2.70)	0 (0)
Primary Care	52 (100)	54 (100)	0 (0)	13 (24)	48 (92.30)	37 (68.50)	0 (0)	0 (0)	4 (7.60)	4 (7.40)	0 (0)
Primary Care Diabetes	121 (100)	85 (100)	100 (82.60)	61 (71.70)	2 (1.60)	6 (7)	6 (4.90)	0 (0)	13 (10.70)	18 (21.10)	3 (2.40)
Primary Health Care Research and Development	64 (100)	155 (100)	53 (82.80)	121 (78)	4 (6.20)	7 (4.50)	0 (0)	0 (0)	7 (10.90)	27 (17.40)	0 (0)
Scandinavian Journal of Primary Health Care	54 (100)	68 (100)	52 (96.30)	65 (95.50)	0 (0)	0 (0)	1 (1.80)	1 (1.40)	1 (1.80)	2 (2.90)	0 (0)
<b>ESCI JOURNALS</b>											
African Journal of Primary Health Care & Family Medicine	113 (100)	81 (100)	66 (58.40)	65 (80.20)	6 (5.30)	8 (9.80)	4 (3.50)	1 (1.20)	37 (32.70)	7 (8.60)	27 (23.80)
Education for Primary Care	81 (100)	87 (100)	24 (29.60)	24 (27.50)	0 (0)	2 (2.30)	24 (29.60)	19 (21.80)	33 (40.70)	42 (48.20)	6 (7.40)
Family Medicine and Community Health	46 (100)	49 (100)	24 (52.10)	31 (63.20)	4 (8.70)	2 (4)	1 (2.10)	9 (18.30)	17 (36.90)	7 (14.20)	7 (15.20)
Family Medicine and Primary Care Review	60 (100)	61 (100)	49 (81.60)	50 (81.90)	7 (11.60)	6 (9.80)	0 (0)	0 (0)	4 (6.60)	5 (8.20)	0 (0)
Journal of Family Medicine and Primary Care	1279 (100)	779 (100)	810 (68.20)	552 (70.80)	93 (7.80)	42 (5.30)	90 (7.50)	28 (3.50)	194 (16.30)	157 (20.10)	92 (7.70)
Journal of Primary Care and Community Health	216 (100)	62 (100)	167 (77.30)	58 (93.50)	14 (6.40)	1 (1.60)	9 (4.10)	0 (0)	26 (12)	3 (4.80)	34 (15.70)
Journal of Primary Health Care	58 (100)	54 (100)	38 (65.50)	32 (59.20)	0 (0)	0 (0)	3 (5.10)	3 (5.50)	17 (29.30)	19 (35.10)	9 (15.50)
Korean Journal of Family Medicine	72 (100)	63 (100)	48 (77.40)	46 (73)	7 (11.20)	5 (7.90)	0 (0)	5 (7.90)	7 (11.20)	7 (11.10)	0 (0)
Medicina De Familia-Semergen	129 (100)	97 (100)	51 (39.50)	42 (43.30)	21 (16.20)	14 (14.40)	14 (10.80)	11 (11.30)	43 (33.30)	30 (30.90)	22 (17)

\*The publications in the category of (Other) include case presentations, criticism, reports, etc., which are outside the types specified in the table, are publications.

**Table 4.** Journals' data on Publons

	Status	SCIE Journals n (%)	ESCI Journals n (%)	Total of Journals n (%)
Publons Partner	Yes	6 (%33.30)	3 (%33.30)	9 (%33.30)
Public Reports on Publons	Yes	1 (%5.60)	0 (%0.00)	1 (%3.70)
Publons Transparent Peer Review Partner	Yes	1 (%5.60)	0 (%0.00)	1 (%3.70)
Signed Reports on Publons	Yes	1 (%5.60)	0 (%0.00)	1 (%3.70)

**Table 5.** Some features of journals and correlation analysis of 2020 data

		Journal Impact Factor <sup>a</sup>	Issues Per Year	Total Number of Articles Published in 2020	Number of Original Research in 2020	Number of Reviews in 2020	Number of Letters to The Editor in 2020	Number of Other Publications in 2020	Titles containing COVID-19
Journal Impact Factor <sup>***</sup>	Rho	1.000							
	n	27							
Issues Per Year	Rho	-0.066	1.000						
	P	0.745	.						
	n	27	27						
Total Number of Articles Published in 2020	Rho	-0.007	0.510**	1.000					
	P	0.972	<0.001	.					
	n	27	27	27					
Number of Original Research in 2020	Rho	0.147	0.034	0.642**	1.000				
	P	0.464	0.866	<0.001	.				
	n	27	27	27	27				
Number of Reviews in 2020	Rho	0.033	-0.134	0.049	0.081	1.000			
	P	0.871	0.506	0.807	0.690	.			
	n	27	27	27	27	27			
Number of Letters to The Editor in 2020	Rho	-0.141	0.487**	0.595**	0.324	0.107	1.000		
	P	0.485	<0.001	<0.001	0.100	0.595	.		
	n	27	27	27	27	27	27		
Number of Other Publications in 2020	Rho	-0.150	0.585**	0.770**	0.201	-0.068	0.619**	1.000	
	P	0.456	<0.001	<0.001	0.316	0.737	<0.001	.	
	n	27	27	27	27	27	27	27	
Titles containing COVID-19	Rho	-0.263	0.180	0.639**	0.384*	0.054	0.603**	0.735**	1.000
	P	0.185	0.370	<0.001	p<0.05	0.790	<0.001	<0.001	.
	n	27	27	27	27	27	27	27	27

\* Significance at the p<0.05 level

\*\* Significance at the p<0.001 level

\*\*\* Journals that were not included in the analysis because their data could not be reached: ESCI journals and SCIE journals such as American Family Physician, Family Medicine, Journal of Family Practice, Primary Care

## Discussion

As a result of our analyzes, it was determined that the number of publications containing the 'COVID-19' terminology and the impact factors of the journals was inversely proportional, and this result is remarkable. The fact that the journals we evaluated in our study were in the 'PHC' category and the journals were followed by professional groups operating in or interested in this field may have caused the publications related to COVID-19 to receive little attention from this group and the journal impact factor to decrease.

It is seen that 8 (29.60%) of the journals discussed in our study are from the USA, and 8 (29.60%) are from England. In the study examining the scientific outputs in the indexes between 1960 and 2003 in the field of 'PHC', it was determined that 37.30% of the articles were from England and 27% from the USA.<sup>18</sup>The fact that the number of SCIE and ESCI journals in the field of 'PHC' today is high in the USA and England may be a result of the fact that the articles previously published in this field mainly come from these countries.

It was seen that 24 (88.90%) of the 27 journals we evaluated used English as the language of publication. When the indexed journals were evaluated in terms of publication language, it was determined that 90% of all their publications were in English as of the 2000s.<sup>19</sup> It can be thought that this is due to the fact that most of the journals and articles originate from countries whose mother tongue is English, such as the USA and England.

H-Index and SJR 2020, JCI 2019 and 2020 were found to be higher in SCIE journals compared to ESCI journals. It can be said that this is the natural result of the SCIE index hosting more prestigious journals than the ESCI index and the difference in the index.<sup>9,10,13,14</sup>

It was determined that SCIE journals published more in 2019 and 2020 in the PHC category, and this may be because the number of SCIE journals is higher than the number of ESCI journals, or it may be the result of the reflection of the awareness of SCIE journals.

Our study determined that SCIE journals in the PHC category included less "COVID-19" terminology in the title of their publications in 2020 compared to ESCI journals, which may be an indication that SCIE journals avoid publications related to "COVID-19". It is natural that highly prestigious journals whose publication area is PHC avoid publications related to 'COVID-19'. Although it was not statistically significant in our study, the fact that the increase in the number of publications containing the terminology "COVID-19" in the title had negatively associated with the journal impact factors also supports this. It has been determined that family physicians are more interested in publications that concern their fields and contain practical solutions to daily problems compared to issues that affect the general public.<sup>18</sup> This may explain why journals in the PHC category do not include content such as 'COVID-19' in their publications. On the other hand, as the number of annual journals

increases, the total number of publications increases, and as the total number of publications increases, the number of publications with the "COVID-19" terminology in the title increase is the usual result of situations that feed each other.

In a study in which 6296 ESCI journals were examined, it was determined that one-third of ESCI journals were OA. <sup>20</sup> The high APC medians of SCIE journals in our study compared to ESCI journals may be due to the fact that all ESCI journals in our study have OA compared to the literature, and may be due to the fact that the SCIE index is more rooted.

Publons business model is commercial in nature and is based on collaboration with publishers. <sup>15</sup> It was determined that 33.30% of the journals in our study were in cooperation. There was no difference in Publons between SCIE and ESCI journals, and this may be due to the collaborative structure of Publons and the low rate of collaboration of the journals in our study with Publons.

In summary, it is seen that the general differences valid between SCIE-ESCI journals are also between journals in the PHC category, and this situation is reflected in indicators such as H-Index, SJR 2020, JCI 2019 and 2020. It is noteworthy that the OA rate of ESCI journals in the PHC category is higher than in general. It is thought that PHC journals avoid 'COVID-19' related content in terms of their fields.

#### *Limitations*

In our study, the data of the journals were taken from the websites where the relevant data are available, and the most recent data were used since up-to-date data on some parameters could not be obtained. Some parameters that could not be obtained were excluded from the analysis. Although these parameters are in the minority, they may have affected the results. On the other hand, since indexes such as SCIE and ESCI, which are only in the WoS Group, are accepted in the academic promotion criteria in Turkey, the 'PHC' journals included in other respected indexes such as PubMed and SCOPUS have not been examined, and this can be considered as a limitation.

#### *Ethical considerations*

Since public data and related literature were analyzed in our study, there was no ethical violation.

#### *Conflict of Interest*

The author declares no conflict of interest.

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