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A Systematic Review of Research on Problems and Challenges Faced by Principals During the COVID-19 Pandemic

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Abstract: COVID-19 affected all education stakeholders and led to school closures at the beginning of the spread of the pandemic. During the pandemic, principals had to manage their schools and faced many problems during the closure. Although there are numerous studies on school principals' challenges and difficulties during the COVID-19 pandemic, no systematic review study analyzes research about the principals' challenges and problems in the current literature. The purpose of this study is to provide a systematic review of the challenges and problems of principals during the COVID-19 pandemic from 2020 to 2022. The researcher analyzed 395 articles indexed in the ERIC and SCOPUS databases between 2020-2022. The results were analyzed using content analysis. The research results showed that 26 articles were suitable according to the analysis criteria. The results revealed that, in general, researchers focused on understanding principals' experiences regarding their challenges and problems during the pandemic. The results also showed that most articles were published in 2021, and most studies were conducted in The United States of America and Turkey. The results also show that qualitative studies are higher than quantitative. In addition, we found that the biggest challenges are inadequate equipment and lack of access to the internet and online resources during the pandemic. At the same time, the most common problems were identified as the adaptation of online teaching and inadequate infrastructure. The results from this research contribute to the body of the existing literature through a systematic review of the challenges and problems of principals during a pandemic and identifying the research gaps revealed from the analyzed studies.

Keywords: COVID-19 pandemic, principals, systematic review.

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Introduction

Challenges and problems are among the most important research topics in educational management. Many researchers have made great efforts to understand the challenges and problems of principals in managing a school (Arnold et al., 2021; Brion, 2021; Hadriana et al., 2021; Lien et al., 2022; Poole et al., 2022; Potyrała et al., 2021; Scully et al., 2021; Song et al., 2020; Ufnar et al., 2021; Westberry et al., 2021). With the outbreak of COVID-19 in 2020, school leaders have been forced to face various challenges and difficulties in school closures and distance education (Arnold et al., 2021; Potyrała et al., 2021; Westberry et al., 2021). Principals have had to experience and cope with crucial changes in school administration and the process of school closures and distance learning. Especially the difficulties and problems during COVID-19 have become more demanding. School leaders had to overcome many challenges or problems they had never seen before COVID-19.

In the literature, many scholars who have studied educational management have used the words "challenges" and "problems" in the same terms (Tintoré et al., 2022). However, some researchers, such as (Tintoré et al., 2022), have

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used these terms differently. While conducting this study, we preferred to use the Cambridge Dictionary's definitions (Cambridge Dictionary, n.d.). A problem is defined in the same dictionary as "*the situation of being faced with something that needs great mental or physical effort to be done successfully*", while a challenge is "*a situation, person, or thing that needs attention and needs to be dealt with or solved*". Researchers have indicated that the principals' problems and challenges are undesirable and unsatisfactory for principals. However, understanding these challenges and problems can present great opportunities and support for all education stakeholders. With this aim, many researchers have sought to investigate the challenges and problems school principals face during school management and put great efforts into the nature and source of the challenges and problems. In particular, with the spread of COVID-19, many scholars (Arnold et al., 2021; Brock et al., 2021; de Paula et al., 2022; Ermenc et al., 2021; Fotheringham et al., 2022; Lopez et al., 2022; Mutongoza et al., 2021; Nizhenkovska et al., 2022; Palau et al., 2021; Reid, 2022; Sudakova et al., 2022; Thornton, 2021; Zincirli, 2021) have focused on understanding the challenges and problems school principals faced during the pandemic. However, to our knowledge, no systematic review has examined the challenges and problems school principals have faced during COVID-19 since 2020. For example, Tintoré et al. analyzed the published articles about the problems and challenges of principals between 2003 and 2019. However, the study of Tintoré et al. was conducted before the beginning of the COVID-19 pandemic.

The study by Tintoré et al. (2022) analyzed the problems and challenges of school leaders in research published between 2003 and 2019. They obtained and analyzed a total of 153 documents. Their results showed that most of the publications (71%) on the problems and challenges of school leaders were conducted in the last six years (2014-2019) and most of the studies were from Anglo-Saxon countries (55%). The researchers found eight major categories related to three challenges, including management, complexity, and learning, faced by school leaders, and five problems, including educational authorities and policies, staff and instructional process, students, families and the school community, and society. They found that the problems related to challenges and problems with educational authorities and policy were the most common. They also found that the number and complexity of problems and challenges increased significantly over time.

The literature has widely acknowledged and discussed school leaders' challenges and problems during the COVID-19 pandemic. However, there is no systematic review of research on the challenges and problems faced by school leaders during the COVID-19 pandemic. This systematic review is intended to provide an overview of the current state of school leaders' challenges and problems during the pandemic. To answer this question, we reviewed journal articles on empirical studies examining the challenges and problems faced by school principals during the pandemic. The authors of the present paper could not find any research that aimed to review the published articles in the literature during the pandemic. By providing a systematic review of research on principals and COVID-19, this paper offers new insights that can help understand an overall picture of the existing studies in the literature and provide informative information about the overall situation of research and improvement of educational leadership. From this perspective, we believe that the results obtained from this research will contribute to the literature by adding new knowledge about the progress of educational leadership.

Methodology

Databases and Search Strategy

A systematic review approach was used to analyze research studies conducted on the challenges and problems of principals during the COVID-19 pandemic from 2020 to 2022. We used PRISMA guidelines and a four-phase flowchart to examine the published articles. Liberati et al. (2009, p. 2) pointed out that "PRISMA focuses on ways in which authors can ensure the transparent and complete reporting of systematic reviews and meta-analyses." Specifically, PRISMA consists of a detailed checklist for a systematic literature review and suggests some practical stages for a detailed analysis of published studies. The authors searched the existing studies in two databases to analyze the studies. This phase used key search terms, including "principal" and "COVID". These keywords are based on the relevant literature on challenges, problems, principals, and COVID-19. Because the COVID-19 pandemic occurred in 2020, the search period for this systematic review was limited to 2020 to 2022 to capture the most relevant and current literature in the field. Only articles in English were included in this review. Results were limited to peer-reviewed journal articles. Searching the ERIC database yielded 140 articles, whereas exploring the SCOPUS database yielded 255 articles. Thus, 395 articles were found for the systematic review analysis. The search limiters were used to meet the search criteria in this search. These limiters and the search results are shown in Table 1. After applying the inclusion criteria, 26 articles were eligible for this systematic review. Most of these studies (n=25) included in the analysis were found in the ERIC database. The other two studies included in the analysis were from the SCOPUS database. Fourteen articles were excluded for lack of relevance to the client and the COVID-19 pandemic. The remaining articles searched in two databases were discarded because they were irrelevant to the principal or COVID-19.

Criteria for Inclusion

The first search using our keywords yielded 395 articles. After applying inclusion and exclusion criteria, twenty-seven articles were eligible for this systematic review. Nearly all of these studies included in the analysis (n=25) were found

in the ERIC database. Twenty-five articles appeared as duplicated in the ERIC database and were therefore removed these articles from further analysis. For the final analysis, the inclusion and exclusion criteria were used to limit the scope of the review and ensure the quality of the included articles.

- We included articles that addressed the challenges and issues faced by principals during the COVID-19 pandemic.
- No exclusion criteria were used regarding the methodology of the articles, including qualitative, quantitative, and mixed methods.
- Only articles that addressed challenges and issues faced by school leaders were included.
- Only publications indexed in the ERIC and SCOPUS databases were included.
- Only articles written in English were included. The other languages were not included in this systematic review.
- Articles meeting the above criteria were considered for further analysis. No articles meeting the above criteria were not included in the analysis. In addition, we used the following exclusion criteria for the analysis of reviewed articles. After applying the inclusion and exclusion criteria, twenty-seven articles remained to be included in the systematic review. Our exclusion criteria are as follows: Articles not conducted during the COVID-19 were not included in the review.
- Papers that were not published in English.
- Studies that were not published in peer-reviewed journals.
- Theoretical studies or reviews.
- Master's theses and doctoral dissertations.

Data Analysis

For data analysis, the researchers reviewed the selected articles based on information about the authors, year of publication, country of research, participants, research methods, thematic focus, scope and purpose of research, and challenges and problems related to principals during the period of COVID-19. Before starting the analysis, the researchers created a protocol to analyze the selected articles. Later, two researchers independently extracted the necessary information from the selected articles. During this process, the researchers worked separately. The interrater reliability value was calculated after the researchers extracted the data from the articles. The two researchers' analyses resulted in an interrater agreement rate of .93. It was found that the disagreements were primarily related to the thematic focus, as many articles explored the experiences of school leaders from different perspectives. For example, while some articles focused on principals' experiences in general terms, a portion of the articles focused on their views or perceptions about the period of COVID-19. These disagreements were easily resolved between the two researchers by referring to the full text of the articles and discussing the corresponding articles regarding the variable. The flow of the study selection process, including identification, screening, eligibility, and included studies, is shown in Figure 1.

Table 1. Results of the Initial Search

Search terms*	Search limiters	Databases	Hits
("principal") AND ("COVID") in all fields.	Peer reviewed	ERIC	140
	English Scholarly journals Extra limiters Time: 2020 & 2021. Subject: Education	SCOPUS	255
Total with duplications			395

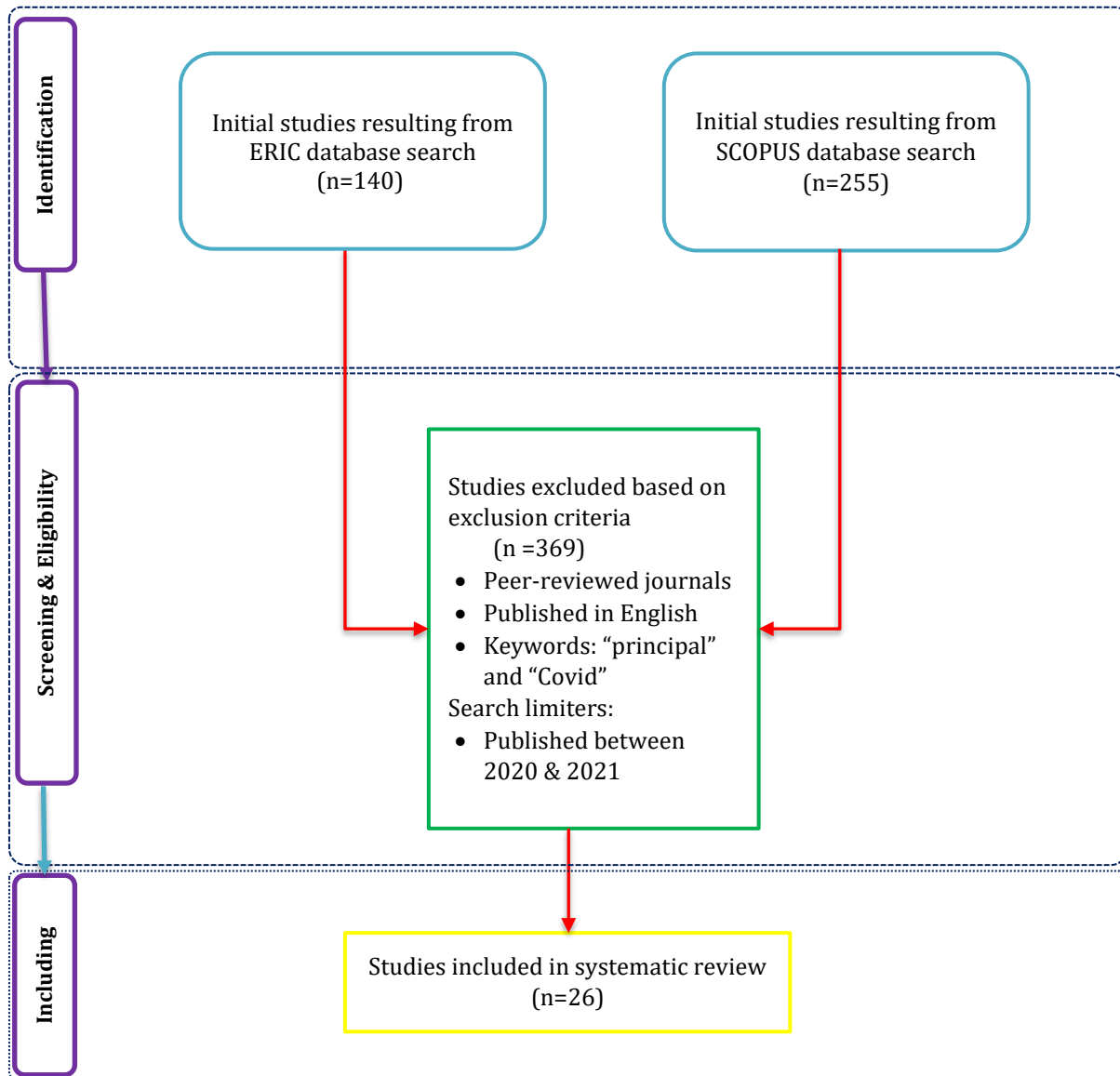


Figure 1. The Flow of the Study Selection

Results

Our search yields 26 articles published between 2020 and 2022. Most articles (73%) involved in the systematic reviews were published in 2021. A very less number of articles were published in 2020. This result shows a clear trend of increasing publication and interest in the principals' challenges and problems from the beginning of COVID-19. Figure 2 shows the distribution of publications per year.

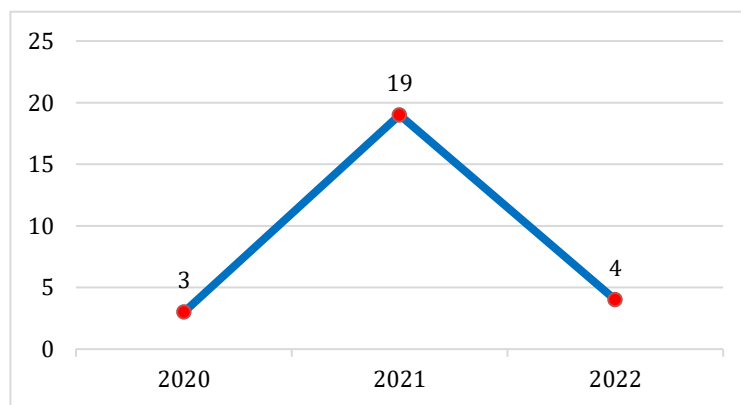


Figure 2. Number of Articles Related to Principals' Challenges and Problems during the COVID-19 (n=26)

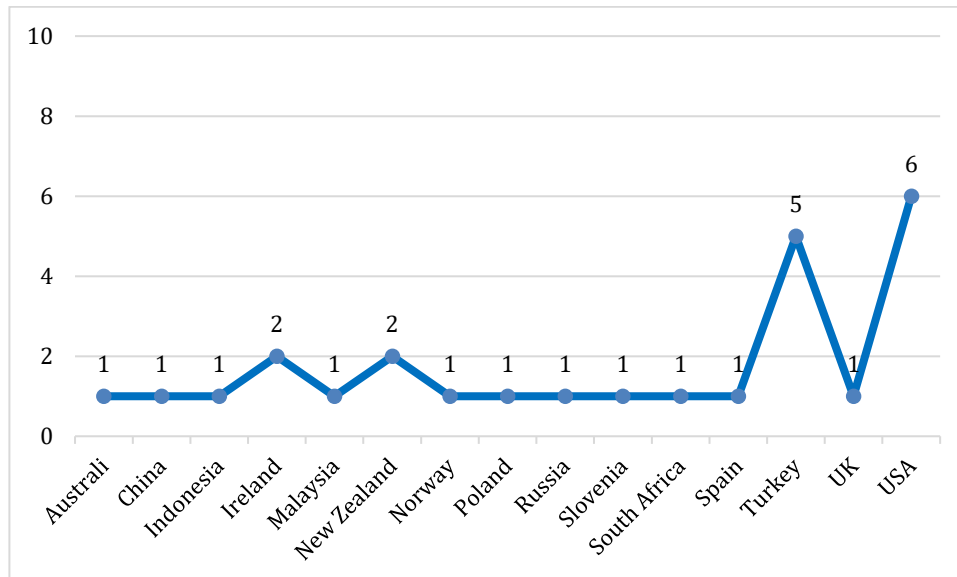


Figure 3. The Number of Articles Involved in the Systematic Review

As Figure 3 shows, the articles about the challenges and problems of school leaders during their studies are from research studies in fifteen countries. These countries are Australia, China, Indonesia, Ireland, Malaysia, New Zealand, Norway, Poland, Russia, Slovenia, South Africa, Spain, Turkey, the UK, and the USA. The results show that the studies from the USA are the most numerous, with nearly 23% (6 articles) of the total. The USA is followed by most studies from Turkey (5 articles), Ireland (2), and New Zealand (2). The other countries follow these countries with one article.

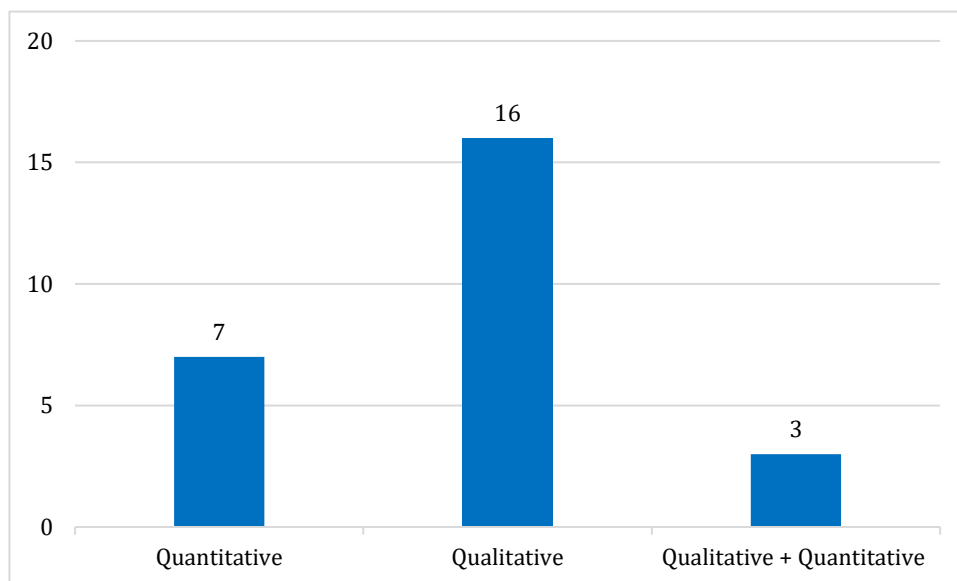


Figure 4. Research Methods Used in Articles

Regarding the methodology used in the articles, as Figure 4 shows, the results indicate that the qualitative method is the most commonly used ($n = 16$, 61.5%), followed by quantitative ($n = 7$, 27%) and mixed ($n = 3$, 11.5%).

The analysis results in Table 2 are organized according to the focus of the articles. At the end of the analysis, it was found that all the studies reviewed in this present study focused primarily on understanding principals' experiences during the pandemic. Therefore, the researchers decided not to incorporate the selected articles into a thematic focus.

When examining the results in Table 2, it was found that 30% ($n=8$) of the articles directly addressed the experiences of school leaders ($n=17$, 62.9%). Three articles focused on the challenges principals experienced during the pandemic. Three articles focused on leadership, while two articles explored the difficulties school leaders experienced during the pandemic. While four articles addressed principals' perceptions, two were conducted on principals' management activities. Of the other articles, one addressed principals' problems, while two articles examined school culture and stress and anxiety, respectively.

These findings reveal that principals' experiences are most salient during COVID-19 between 2020 and 2022. In addition, we found that leadership and management activities have received less attention in the reviewed articles.

Table 2. A Detailed Analysis of Research on Principals' Problems and Challenges during the COVID-19

Authors and affiliations	Focus	Purpose
Brock et al. (2021)	Challenges	Highlights the challenges that the COVID-19 pandemic created for two principals who served as instructional leaders and supervisors within two different districts and at different grade levels.
Lopez et al. (2022)	Challenges and experiences	Explores the role, experiences, and challenges of principals in primary schools during the Covid-19 Pandemic.
Ermenc et al. (2021)	Challenges and problems	Identifies the challenges and issues the school heads faced in the first weeks of the epidemic and examines the positive experiences that may represent examples of good practice for dealing with similar problems in the future.
Dilekçi (2021)	Difficulties	Investigates what difficulties school administrators experienced in making decisions, planning, organizing, communicating, influencing, coordinating, and budgeting during the COVID-19 pandemic.
Song et al. (2020).	Difficulties	Compares the status quo, attitudes, difficulties, and needs among school principals and frontline teachers in elementary and secondary schools during the COVID-19
Akbaba-Altun and Bulut (2021)	Experiences	Explains school administrators' roles and responsibilities for emergency remote teaching after schools are closed.
Brion and Kiral (2021)		Understand how 30 American school leaders coped with the covid-19 pandemic
Lien et al. (2022)		Elaborates on school principals' experiences and learning from the school closures, transition to digital education, and educational leadership in the first six months of the pandemic
Mutch (2020).		Research into the role of schools in disaster response and recovery highlights the expectations placed on schools following a crisis.
Mutongoza et al. (2021)		Examines school principals' experiences on school management in the context of COVID-19 stringency in four rural schools
Palau et al. (2021)		Analyzes how primary and secondary schools in Catalonia (Spain) implemented the teaching and learning process during the lockdown.
Ufnar et al. (2021)		Reports the findings from a survey administered to researchers in the STEM outreach community in May 2020.
Westberry et al. (2021)		Evaluates P-12 principals' and district officials' experiences during the COVID-19 pandemic amid the abrupt change to virtual leadership.
Arnold et al. (2021)	Leadership	Consider how Australian school leaders' work roles and health and wellbeing may have been impacted during 2020-
Brown et al. (2021)		Explores the leadership and planning strategies employed by a sample of school leaders in Northern Ireland during the Covid-19 Pandemic.
Fotheringham et al. (2022)		Identifies the reactions and responses of school leaders who construct and enact policy in the context of the COVID-19 pandemic.
Thornton (2021)		Aims to contribute to our understanding of school leadership in times of crisis, particularly during an ongoing pandemic, and highlights effective leadership approaches and implications for future practice.
Hadriana et al. (2021)	Management activities	Analyze online learning management activities conducted by the principals of junior high schools in Indonesia in facing COVID-19
Kavrayıcı and Kesim (2021)		Reveals the school management process during the COVID-19 pandemic
Potyrała et al. (2021)	Perceptions	Presents a content analysis study of the Polish educational environment based on primary and secondary head teachers' views on the risks and perspectives brought by the global Covid-2019 lockdown.

Table 2. Continued

Authors and affiliations	Focus	Purpose
Scully et al. (2021)		Reports on a survey of secondary school leaders (n = 72) in Ireland, conducted three months after the closures. Leaders' beliefs about technology, digital practices before the pandemic, and responses to the emergency are considered.
Yurinova et al. (2022)		Investigates education employers' opinions (61 principals and deputy principals from 31 Russian secondary schools) about the comparative importance of TPCs for school teachers working in the digital environment and their perceptions of what barriers prevent teachers from developing TPCs.
Zincirli (2021)		Determines school administrators' views on distance education activities during the COVID-19 pandemic.
Aytaç (2020)	Problems	Describes the problems faced by some school administrators during the COVID-19 pandemic in different cities and present their opinions regarding the process
Brion (2021)	School culture	Understand how 30 educational leaders created intentionally inviting school cultures during the COVID-19 pandemic.
Reid (2022)	Stress and anxiety	Understand how school principals in the United States (U.S.) describe and manage their stress and anxiety during the COVID-19 pandemic

Looking at the challenges faced by principals (see Table 3), most studies reported inadequate equipment facilities (n= 9, 35%) and lack of access to the internet and online resources (n = 9, 35%). The research's second focus was on technology knowledge (n= 6, 23%). The third focus was financial challenges (n = 4, 15 %). These results were followed by a lack of adequate staff (n = 2, 8%) and lack of safety with online resources (n = 2, 8%), top-down communication (n = 2, 8%), change among school stakeholders, collaboration as an organizational challenge, lack of crisis management training, lack of parent support, lack of student awareness of education, lack of distributed and strategic leadership, problem-solving, teachers' unwillingness to change, work environment, and work-family balance for teachers.

Table 3. A Review of Challenges Faced by Principals

Challenges	Authors citing the problem	Countries	Number of Articles
Change among school stakeholders	Fotheringham et al. (2022)	UK	1
Collaboration as an organizational challenge	Fotheringham et al. (2022)	UK	1
Financial challenges	Brion (2021) Brion and Kiral (2021) Lien et al. (2022) Thornton (2021)	USA USA Norway New Zealand	4
Knowledge of technology	Brion, C. (2021) Brock et al. (2021) Lien et al. (2022) Mutongoza et al. (2021) Palau et al. (2021) Scully et al. (2021)	USA USA Norway South Africa Spain Ireland	6
Inadequate equipment facilities	Brion and Kiral (2021) Brion (2021) Dilekçi (2021) Lien et al. (2022) Lopez et al. (2022) Potyrała et al. (2021) Scully et al. (2021) Thornton (2021) Ufnar et al. (2021)	USA USA Turkey Norway Malaysia Poland Ireland USA	9

Table 3. Continued

Challenges	Authors citing the problem	Countries	Number of Articles
Lack of access to the internet and online resources	Aytaç, T. (2020)	Turkey	9
	Brion, C. (2021)	USA	
	Brion and Kiral (2021)	USA	
	Kavrayıcı and Kesim (2021)	Turkey	
	Mutongoza et al. (2021)	South Africa	
	Palau et al. (2021)	Spain	
	Potyrała et al. (2021)	Poland	
	Scully et al. (2021)	Ireland	
Lack of adequate staff	Ufnar et al. (2021)	USA	2
	Potyrała et al. (2021)	Poland	
Lack of education about crisis management	Thornton (2021)	New Zealand	1
	Mutch (2020)	New Zealand	
Lack of parental support	Lopez et al. (2022)	Malaysia	1
Lack of safety with online resources	Kavrayıcı and Kesim (2021)	Turkey	2
	Thornton (2021)	New Zealand	
Lack of students' awareness of education	Lopez et al. (2022)	Malaysia	1
Lack of distributed and strategic leadership	Brown et al. (2021)	Ireland	1
Problem-solving	Brock et al. (2021)	USA	1
Teachers' unwillingness to change	Yurinova et al. (2022)	Russia	1
Top-down communication	Fotheringham et al. (2022)	UK	2
	Brion and Kiral (2021)	USA	
Work environment	Arnold et al. (2021)	Australia	1
Work-family balance for teachers	Lien et al. (2022)	Norway	1

Table 4 shows an overview of the problems faced by principals. The results show that the most common problems faced by school leaders during the pandemic were the introduction of online teaching (n= 4, 15%) and inadequate infrastructure (n= 4, 15%). The other most common problems were lack of guidance and training (n= 2, 8%), lack of knowledge in using the technology (n= 2, 8%), and low student interest or participation in the courses (n= 2, 8%). Other problems cited include the distribution of hard-copy learning materials, lack of safety with online resources, school management, stress and anxiety, lack of safety with online resources, school management, stress, and anxiety.

Table 4. A Review of Problems faced by Principals

Problem	Authors citing the problem	Country	Number of articles
Adoption of online teaching	Akbaba-Altun and Bulut (2021)	Turkey	4
	Aytaç (2020)	Turkey	
	Song et al. (2020)		
	Zincirli (2021)	Turkey	
Distributing of hard-copy learning materials	Thornton (2021)		1
Inadequate infrastructure	Aytaç (2020)	Turkey	4
	Kavrayıcı and Kesim (2021)	Turkey	
	Song et al. (2020)	China	
	Zincirli (2021)	Turkey	
Lack of guidance and training	Song et al. (2020)	China	2
	Zincirli (2021)	Turkey	
Lack of knowledge of technology	Hadriana et al. (2021)	Indonesia	2
	Ermenc et al. (2021)	Slovenia	
Lack of safety with online resources	Kavrayıcı and Kesim (2021)	Turkey	2
	Zincirli (2021)	Turkey	
School management	Kavrayıcı and Kesim (2021)	Turkey	2
	Westberry et al. (2021)	USA	
Stress and anxiety	Reid (2022)	USA	1
Students' low interest or participation in courses	Dilekçi (2021)	Turkey	2
	Zincirli (2021)	Turkey	
Tight schedule and heavy workload	Song et al. (2020)	China	1
Unwillingness of teachers	Aytaç (2020)	Turkey	1

Discussion

This study attempted to provide a systematic review of articles written about principals' experiences with the epidemic COVID-19. The results also showed that most research focused on understanding principals' management processes during the pandemic. Based on the findings of this study, some major shortcomings in the existing literature on challenges, problems, and principals were identified. First, the results showed that most articles published between 2020 and 2022 aimed to explore principals' experiences and perceptions of school management during the pandemic COVID -19. The results also showed that most articles about principals' challenges and problems during the pandemic were published in 2021. This finding is very similar to that of Tintoré et al. (2022), as they indicated a clear trend of an increasing number of publications and interest in the problems of principals between 2014 and 2019 and noted a trend starting from 2014. They reported that 71% of research on the principals' challenges and problems was published between 2014-2019. Since the pandemic began in March 2020, this finding also means that researchers may have been delayed in the data collection, the peer review process, and the publication of the studies. It appears that once school closures and online and distance learning began at the start of the pandemic, researchers made great efforts to understand the challenges and issues faced by principals during the pandemic. Given the data collection, peer review, and articles that addressed principals and their challenges and issues, we believe it is normal to date the publication of the research findings to 2021.

The second important finding of this research is that the review of the articles shows that most of the studies were conducted in Turkey (n=5) and the United States of America (USA) (n=6). This result is partially consistent with Tintoré et al. (2022), who found that studies from the USA were the most and accounted for almost 25% of the 153 documents in an analysis of principals' problems and challenges from 2003 to 2019. From this finding, we conclude that there was a high level of interest in the experiences of principals during the pandemic in these two countries. However, as authors, we do not have any evidence to explain why the number of studies in the other countries is lower compared to these two countries (Turkey and the United States).

Third, the number of qualitative studies is higher than quantitative papers. Some studies used both quantitative and qualitative methods to collect data. These results indicate that researchers focused on deeper data collection using qualitative methods to understand principals' experiences and management processes during the pandemic. This finding may suggest that researchers prefer to use qualitative methods to understand better the challenges and problems faced by school leaders in light of the obtained data from this present study. To the researchers' knowledge, this finding has no differences or similarities with studies in the literature, for example, those of Tintoré et al. (2022).

Fourth, the results of this work also showed that the articles examined in this study focused on understanding the processes principals faced during COVID -19. In general, we can conclude that researchers aimed to understand the experiences of principals during school closure and online instruction during the pandemic. The reason for such an outcome might be the unexpected impact of the COVID -19 pandemic. As we know, not only principals but all other stakeholders have faced an unfamiliar situation since the beginning of the pandemic, and all those working in education were affected by the consequences of this pandemic. Therefore, as researchers, we agree with the researchers' efforts to understand the experience of school principals during the school closure, as no well-developed and detailed online training was planned and prepared for emergencies such as the pandemic before the pandemic (Palau et al., 2021). For example, Palau et al. (2021) pointed out that school leaders had to make quick decisions to adapt teaching and learning according to government requirements, so they had to manage the situation differently during the pandemic. In a recent study, Arnold et al. (2021) emphasized that school principals rarely had more work than they could handle during the pandemic and worked quickly. They also pointed out that Australian school principals in 2020 reported that their work role during the pandemic COVID -19 was less predictable than in previous years.

Fifth, other findings indicate that principals' biggest challenges were inadequate equipment and lack of access to the internet and online resources. This finding is consistent with that of Tintoré et al. (2022), who found that management and complexity challenges have been heavily researched in the literature compared to other challenges. Specifically, due to the unanticipated impact of COVID-19 and online training that is not well developed and detailed, principals may have been challenged with the need for equipment facilities and internet and online educational resources. Our findings also indicate that teachers' knowledge of technology is one of the challenges principals faced during online training during the pandemic. This finding is not consistent with the results of Tintoré et al. (2022), as none of the studies they examined from 2003-2019 reported an emergency such as an epidemic.

Finally, our results also showed that principals encountered many problems managing schools during the pandemic. They reported adaptation of online teaching and inadequate infrastructure as common problems in the articles studied. These results are inconsistent with the findings of Tintoré et al. (2022) because the epidemic brought unexpected situations that principals had to deal with in the teaching process and school management. Thus, we can conclude that the results of this present study contain some unique aspects for curriculum designers, principals, and researchers.

Conclusion

This systematic review provides an overview of the current state of research on challenges and issues school leaders faced during the COVID-19 pandemic. This type of systematic review is necessary because the pandemic unveiled many unanticipated situations for all education stakeholders and caused many challenges and issues that school leaders faced. Therefore, this study contributes to a growing body of knowledge about the challenges and problems faced by school leaders during the COVID-19 pandemic. Nonetheless, the results of this study provide researchers with useful insights to understand the challenges and issues school leaders met during the pandemic. The results of this study also provide new insights into what challenges and problems are being addressed by school districts and how school environments can be designed to improve principals' educational management processes and experiences. This systematic review covers a selected period during a recent pandemic in the recent three years. The focus of this review is on school leaders and the coronavirus pandemic. Although there are several studies on the challenges and problems of school leaders between 2020 and 2022, it can be said that the number of studies is still lower. In addition, future research is needed to examine the challenges and problems of school leaders in more detail. Future research should consider the challenges and difficulties that school leaders will experience.

Recommendations

The results of this review indicate that future research needs to explore further the detailed analysis of principals' challenges and problems, as well as some factors that influence principals' management processes of COVID-19. This systematic review also indicates that articles on principals and COVID-19 need to be further examined from different perspectives. Therefore, future studies should focus on analyzing the results of these studies. This study contributes to the literature by providing a systematic review of the studies on the management process of principals during the COVID-19 pandemic. It is expected that future studies will analyze the research gaps in these studies and provide researchers with a more detailed perspective.

Limitations

This study analyzed articles published between 2020 and 2022 from peer-reviewed journals indexed in ERIC and SCOPUS databases. From this perspective, the analyzes are limited by specific periods and databases. The studies before the outbreak of COVID-19 were not included in the analysis. In addition, the articles published in English were included in the analysis. The articles in other languages were not included. In addition, the different types of research publications, including conference proceedings and dissertations, were not included in the analysis.

Authorship Contribution Statement

Urakova: Analysis, editing, and writing; Sudakova: Writing, analysis, design, supervision; Kochneva: Writing, analysis, design; Grishnova: Writing, analysis, design, supervision; Asafova: Analysis and editing, and writing; Garnaya-Ivanova: Analysis and editing.

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