Research Article

INTERPLAY OF CRISSES: MAPPING THE SCIENTIFIC LANDSCAPE OF INTERSECTING THEMES IN THE COVID-19 PANDEMIC AND THE RUSSIAN-UKRAINE WAR

Kamil Maciuk*, Paulina Lewińska, Artur Krawczyk, Piotr Trojański, Michał Apollo and David C. Geary

ABSTRACT

Background: In February 2022, Russian Federation troops attacked Ukraine on several fronts, thereby starting a war that continues to this day. The invasion garnered worldwide opposition, leading to sanctions imposed on politicians and corporations in the Russian Federation. The war has also left its mark on art, culture, and science.

Methods: In this study, we analyse the war in Ukraine and how scholars around the world have examined it. The analysis is divided into three parts: (1) a comprehensive review of the number of articles and conference proceedings related to the Russia-Ukraine war in the Web of Science (WoS) disciplines/categories; (2) the main topics and directions chosen by the authors; and (3) a summary of studies focused on COVID-19 during the war. The latter topic is particularly important, as the COVID-19 situation in Ukraine was already complex before the 2022 invasion, and the ongoing military actions have further exacerbated it. For the above analyses, we utilised a WoS database from 2014 (covering the first Russian attack on Crimea, Donetsk and Luhansk regions) through December 2022.

Results and Conclusions: For academics, the war in Ukraine has become a significant subject of study. As it proliferated, culminating in a direct mass attack in February 2022, research efforts involved more and more scientific fields. These fields range from political science and sociology research to psychology and marketing to engineering science or supply chains.
1 INTRODUCTION

The academic study of war, particularly in the humanities, such as history or sociology, includes assessments of their causes and consequences.1 War is a phenomenon that occurs when two or more states or groups of people engage in armed action to achieve their political, economic, or military objectives.2 Wars can be waged at different levels of intensity and scale, from local conflicts to global world wars.3 Historians and sociologists study the causes of wars, such as ideological, economic, religious, or ethnic conflicts, and the different social and political groups play in this. They also investigate the effects of wars on societies and states, including demographic changes, economic changes, and political and cultural changes.4 In the natural sciences, such as biology or ecology, wars are studied in terms of how they affect the environment and ecosystems.5 This can include the effects of wars on biodiversity and animal population structure, as well as on the health of humans and other living beings.6 In general, science describes wars as complex phenomena that affect many aspects of social and natural life.

The war in Ukraine began in 2014 with the Russian annexation of Crimea and the support of pro-Russian separatists in the Donbas in eastern Ukraine.7 The initial conflict took the form of a guerrilla war and continues to this day.8 The war has left thousands of people dead and forced millions from their homes. The conflict is also an ongoing source of tension between Russia and the West.9 The war has evidently hurt Ukraine’s economy.

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3 Orysia Kulick, 'Gender and Violence in Ukraine: Changing How We Bear Witness to War' (2022) 64(2-3) Canadian Slavonic Papers 190.
8 Anna Matveeva, 'No Moscow Stooges: Identity Polarization and Guerrilla Movements in Donbass’ (2016) 16 Southeast European and Black Sea Studies 25; Alex Marshall, 'From Civil War to Proxy War: Past History and Current Dilemmas’ (2016) 27 Small Wars & Insurgencies 183.
Many regions, factories, and human dwellings have been destroyed, and the conflict has discouraged economic investment in the country. The war in Ukraine is still ongoing and remains one of the most serious armed conflicts in the world. In 2022, it escalated to other areas of Ukraine.10

Also, the already limited success in vaccinating the population of Ukraine against COVID-19 has slowed and, in some areas, paused. Also, the rapid internal and external migration of people has made the COVID-19 pandemic analysis even more difficult to track and control.11

The current research on the COVID-19 pandemic and the Russian-Ukrainian War using bibliometric analysis is limited due to the recency of the conflict and the dynamically changing research environment. Nevertheless, existing works on the COVID-19 pandemic in the social sciences, such as mapping the research landscape of COVID-19 from a social sciences perspective: a bibliometric analysis, may lay the groundwork for future studies analysing this intersection of topics.12 Such an analysis is timely because the war is expected to have significant, reciprocal impacts with the pandemic, affecting global health, food security, and economic stability, and bibliometric methods can help to understand research and public health trends and identify gaps in knowledge.13

This paper aims to analyse eight years of war (2014-2022) - including ten months and the COVID-19 pandemic (February-December 2022) in Ukraine in the light of scientific papers and to illustrate how researchers from around the world have seen the reality, analysed and described it. In the bibliographic analysis, we focused on three elements: the Russian-Ukrainian War in Web of Science disciplines (categories) (section 3.1), the description of disciplines and topics subjectively chosen by authors (section 3.2), and research focusing on COVID-19 during the war (section 3.3). Such an in-depth analysis will provide insight into trends and reveal research gaps.

10 Eliot A Cohen, 'Ukraine Is Winning the War...: And the West Doesn’t Want to Recognize it’ (2022) 72(1-3) Osteuropa 179; Kai-Olaf Lang, ‘In Turbulenzen’ (2022) 72(4-5) Osteuropa 117.
Considering the novelty of the conflict and the need to conduct, publish, and index research in databases, future studies in this area are highly probable. Documenting the latest publications in relevant academic databases is important to stay informed about emerging research in this field.

2 METHODS

In this section, we describe the "mapping" methodology, clearly defining the criteria used to identify trends highlighted by the authors.

The "mapping" methodology employs advanced bibliometric analysis techniques to identify and visualise the main research areas, trends, and the interconnections between different scientific disciplines (referred to as 'categories' in Web of Science - WoS), especially in the context of the war in Ukraine and the COVID-19 pandemic. The publication selection criteria included searching for keywords "war" and "Ukraine," as well as "COVID-19" in titles, abstracts, keywords, and additional keywords (keywords plus) in the WoS database, starting from the year 2014. The goal was to include works that analyse the impact of the 2022 conflict and the pandemic on science and research within a broader historical context of the region. Our analysis workflow is presented in Figure 1.

![Figure 1. Workflow diagram presenting the processing pipeline](image)

To determine the impact of the war in Ukraine on scientific and scholarly output, articles containing specific wording in the title were analysed from the WoS database starting from 2014. The search included the keywords "war" and "Ukraine." Papers published since 2014 have been incorporating a broader historical context of the region, particularly in relation to the 2022 conflict. Additionally, from these papers, topics (including abstracts, titles, keywords, and keywords plus) that include the term "COVID-19" were analysed. We categorised the 641 identified titles as of 21 December 2022 on three dimensions: the disciplines covered by the authors, the main topics related to the Russia-Ukraine War, and the problems/research related to COVID-19.
3 RESULTS

Below, the analyses of the war in Ukraine were divided into discipline topics and COVID-19-related articles.

3.1. Disciplines dealing with the Russian-Ukrainian War

Among the 641 articles, the authors were from 1 to 3 related disciplines, resulting in 914 discipline entries across 82 disciplines. As shown in Figure 2, 28 disciplines had at least seven appearances, while the remaining 54 disciplines accounted for only 125 entries and thus are not represented in Figure 2. The top disciplines focusing on the war in Ukraine are Government and Law, History, and International Relations, which cover more than half of the topics related to the war.
To better interpret the results, Figure 3 presents a tree map illustrating the distribution of publications across different disciplines related to war. The figure highlights the top 10 disciplines among the remaining 72. These top disciplines account for 65% of all war-related articles.

![Figure 3. Distribution of the WoS disciplines of war-related articles](image)

The most frequent themes included aspects of national identity in Ukraine during Euromaidan, war and identity during the conflict in Donbas, war and Memory in Russia, Ukraine and Belarus, and the role of war in the spread of HIV in Ukraine.

In addition to the top disciplines noted above, there were a significant number of economic studies related to one of these disciplines, which is evident from the war's significant impact on Ukraine's economy and development. Armed conflict destroys infrastructure, hindering the production and distribution of goods and services. It can also lead to a decline in foreign investment and reduce trade with other countries, negatively affecting the country's economy. The war in Ukraine has implications for unemployment rates, wage levels, and the overall living standards of the population. Additionally, it may cause population displacement, further impacting the labour market and mobility.

16 Julie Fedor and others (eds), War and Memory in Russia, Ukraine and Belarus (Palgrave 2017).
Armed conflict can also lead to inflation and disruptions in the financial system. Economic research focused on the war in Ukraine can assist scientists and politicians in gaining a better understanding of the effects of armed conflict on a country's economy and its impact on the living standards of the population and, eventually, its recovery. 18

As noted, there are also many war-related papers in the field of government and law. In areas controlled by the Ukrainian government, Ukrainian law applies, and the authorities are trying to ensure its enforcement. However, in separatist-controlled areas and areas actively under attack, the situation becomes more complicated. Frequent human rights violations and a lack of respect for basic legal standards exist. The war in Ukraine also has implications for international relations and the application of international law. The conflict has escalated tensions between states and international organisations, which may impact the implementation of international law and adherence to international treaties and agreements. Research on law and war in Ukraine encompasses all of these aspects and can provide insights into how the conflict affects the application of law and the protection of human rights in conflict areas. Furthermore, it serves as a case study for understanding the consequences of law violations in armed conflicts, making it a significant contribution to studying 21st-century European conflicts. 19


3.2. Selected topics and research directions related to the Russian-Ukrainian

As noted, the war in Ukraine began in 2014 and continues to this day. The conflict started in eastern Ukraine, where pro-Russian separatists are fighting against Ukrainian government forces. The war is also part of a broader dispute between Russia and Ukraine, which has deep historical and political roots. Internally, the conflict revolves around disagreements regarding the relationships between various regions and ethnic groups within Ukraine and their ties with Russia. Externally, the conflict is intertwined with broader tensions between Russia and the West and is widely seen as a manifestation of Russia's disregard for Ukraine's sovereignty and territorial integrity.

When the conflict initially began in 2014, Russian propaganda worked to reassure its citizens and the world that it was not related to the pro-Russian separatists in Ukraine. Instead, the propaganda framed the conflict in terms of pro-Russia people who felt betrayed by the corrupt Ukrainian government and were fighting to return to their "motherland," Russia. When parts of Ukraine declared independence and expressed a desire to join Russia, the propaganda presented this as a justification for wider conflict to "save the Russian people." This propaganda was primarily circulated within the territory of the Russian Federation. However, the propaganda spread and was not widely accepted in most Eastern countries. Reports about money, weapons, and hired military personnel quickly circulated, and it is now generally acknowledged that the 2014 conflict was inspired and funded by the Russian government.20

All these topics are reflected in scholarly and scientific publications since 2014.

The 2022 conflict, in contrast to the 2014 guerrilla war, is a full-blown war between two sovereign states. Russian propaganda continues to employ the narrative from 2014, claiming that some Ukrainians wish to join Russia but are being hindered by a corrupt Ukrainian government or a dangerous Western bloc. However, this aspect of the conflict has become more transparent, resulting in widespread support for Ukraine. The war has also prompted international action, including peacekeeping missions and mediation efforts conducted by various international organisations such as the United Nations and the European Union. Ukraine has received assistance in acquiring weapons, uniforms, and other necessary resources. Neighbouring countries, particularly Poland, have provided a haven for temporary or permanent immigrants fleeing the conflict.21 Again, these topics have been covered in the literature since 2014.

Given the history and nature of the conflict, it is not surprising that a significant number of associated studies are in political science, as shown in Table 1 and Table 2. This is

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20  Adams (n 19); Averre and Wolczuk (n 19); D’Anieri (n 19); Kulyk (n 14); Kuzio (n 19); Mykhnenko (n 19); Platonova (n 19); Sasse (n 19); Sasse and Lackner (n 15); Torabi (n 19); Torun (n 19); Yekelchyk (n 19); van der Pijl (n 19); Wynnycyjkj (n 19); Johnson (n 19); Gilley (n 19).

understandable, as political science encompasses the study of political mechanisms, processes, and institutions, as well as their impact on individuals and societies. The war in Ukraine holds great relevance for political science due to its implications for international relations, foreign policy, national security, and matters concerning European integration and state sovereignty.22 Research in political science plays a crucial role in enhancing our understanding of the underlying mechanisms driving the conflict in Ukraine and its broader implications for international relations and foreign policy. By delving into the motivations and objectives of the involved parties, political science research provides valuable insights into the dynamics of the conflict and its wider ramifications. Furthermore, such research contributes to identifying effective strategies for conflict resolution and establishing sustainable peace. By studying war and its consequences, political scientists can contribute to the development of policies and approaches that promote peace and stability on both local and global scales.23

Table 1. Summary of Government & Law research area in the literature

<table>
<thead>
<tr>
<th>WoS category</th>
<th>Topic</th>
<th>Number of papers</th>
<th>Citations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area Studies</td>
<td>Economics; Political Science</td>
<td>19</td>
<td>24</td>
</tr>
<tr>
<td></td>
<td>Ethnic Studies; History; Political Science</td>
<td>4</td>
<td>25</td>
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<tr>
<td></td>
<td>International Relations; Political Science</td>
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<td></td>
<td>Political Science</td>
<td>5</td>
<td>27</td>
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<tr>
<td></td>
<td>Political Science</td>
<td>34</td>
<td>28</td>
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</tbody>
</table>

24 Adams (n 19); Averre and Wolczuk (n 19); D’Anieri (n 19); Kulyk (n 14); Kuzio (n 19); Mykhnenko (n 19); Sasse (n 19); Sasse and Lackner (n 15); Platonova (n 19); Torabi (n 19); Torun (n 19); Yekelchyk (n 19); Van der Pijl (n 19); Wynnyckyj (n 19); Johnson (n 19); Gilley (n 19).
25 Eras (n 1); Larys (n 18); Stepaniuk (n 18); Yurchuk (n 18).
26 Edenborg (n 21); ibid, Introduction; ibid, ch 5; Ninkovic (n 21); Sagramoso (n 21).

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<table>
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<th>Law</th>
<th>7</th>
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<tbody>
<tr>
<td>Political Science</td>
<td>58</td>
<td>31</td>
</tr>
</tbody>
</table>


In summary, research on the war in Ukraine involves multiple academic disciplines and approaches, including international relations, national security, foreign policy, sociology, and history, among others. Scholars from these fields are dedicated to examining the root causes and far-reaching consequences of the conflict, as well as the roles played by various states and international organisations in the ongoing crisis. By drawing on diverse perspectives and methodologies, researchers strive to provide a comprehensive...
understanding of the conflict and contribute to the development of effective strategies for peacebuilding and conflict resolution.\(^{35}\)

Additionally, researchers delve into the effects of the war on the civilian population, as well as the repercussions on Ukraine's economy and infrastructure. They explore the role of media in shaping narratives and public opinion during the conflict while examining its impact on Ukrainian and Russian societies. Moreover, considerable research is dedicated to analysing the involvement of international peacekeeping and mediation organisations in efforts to bring about a resolution to the conflict. These studies aim to shed light on the potential avenues for achieving lasting peace in Ukraine and mitigating the long-term consequences of the war on all aspects of society.\(^{36}\)

Indeed, the scholarly research on the war in Ukraine is multifaceted and spans various disciplines. The ongoing efforts of researchers reflect a commitment to comprehend the underlying factors and ramifications of the conflict. Furthermore, their work is driven by the shared objective of finding viable solutions to end the hostilities and establish sustainable peace in the region. As the situation evolves, scholars remain dedicated to their pursuit of knowledge, aiming to contribute to the understanding and resolving this complex and consequential conflict.\(^{37}\)

\(^{35}\) DeWinter-Schmitt, Jones and Stazinski (n 34); Molchanov (n 34); Gruzd and Tsyganova (n 34); Szostek (n 34); Van Bergeijk (n 34); Wilson (n 34); Mathers (n 34); Ngo and others (n 2); Klymenko (n 34); Hale, Shevel and Onuch (n 34); Lizotte (n 34); Vorbrugg and Bluwstein (n 34); Hill (n 34); D’Anieri (n 34); King (n 34); Kozachuk (n 34); Knott (n 34).

\(^{36}\) Sloss and Dickinson (n 22); Mankoff (n 22).

### Table 2. Summary of History research area in the literature

<table>
<thead>
<tr>
<th>WoS category</th>
<th>Topic</th>
<th>Number of articles</th>
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<tr>
<td>Cultural Studies</td>
<td>-</td>
<td>3</td>
<td>39</td>
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</tbody>
</table>


38 Eras (n 1); Larys (n 18); Schmidt-Felzmann (n 28); Stepaniuk (n 18); Yurchuk (n 18).  
International relations play a crucial role in the conflict in Ukraine. The actions and responses of states and international organisations significantly impact the trajectory of the conflict and the potential for its resolution. The decisions made by governments, such as imposing sanctions, providing military support, or engaging in diplomatic negotiations, have direct implications for the parties involved and the overall dynamics of the conflict. International organisations, such as the United Nations, the European Union, and the Organization for Security and Cooperation in Europe, also play a vital role in mediating and facilitating dialogue among the conflicting parties. Understanding and analysing the dynamics of international relations is essential for comprehending the broader context in which the conflict unfolds and exploring avenues for conflict resolution and peacebuilding. Many states and international organisations have been involved in trying to secure peace in Ukraine, for example, by conducting peacekeeping and mediation missions and supporting the actions of the Ukrainian government and international peace organisations. International relations have also played an important role in the conflict in Ukraine through their impact on the relations between and interests of individual states. The conflict in Ukraine has also become part of the broader tensions between Russia and the West and is considered by many commentators to be an expression of Russia’s
disrespect for Ukraine’s sovereignty and territorial integrity. As such, international relations play an important role in the conflict in Ukraine by influencing how states and international organisations respond to the conflict and what actions they take to end it. Thus, it is not surprising that much of the recent research on the Ukrainian war is related to international relations, spanning the fields of law, political science, and general social issues (see Table 3).

**Table 3. Summary of International Relations research area in the literature**

<table>
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<th>WoS category</th>
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<td>Political Science</td>
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<td>History</td>
<td>Sociology</td>
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<tr>
<td>International Relations</td>
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44 Yurchuk (n 18); Eras (n 1); Larys (n 18); Stepaniuk (n 18); Schmidt-Felzmann (n 28).
45 D’Anieri (n 19); Schmidt-Felzmann (n 28).
46 Edenborg (n 21); Ninkovic (n 21); Sagramoso (n 21).
49 Taras Kuzio, ‘Flight MH17, Ukraine and the New Cold War: Prism of Disaster’ (2019) 71(7) Europe-Asia Studies 1245; van der Pijl (n 19); Mathers (n 34); Mankoff (n 28); Hill (n 34).
50 George O Liber, ‘Ukraine’s Maidan, Russia’s War: A Chronicle and Analysis of the Revolution of Dignity’ (2020) 72(10) Europe-Asia Studies 1762; Lavinia Stan, ‘Conflict in Ukraine: The Unwinding of the Post-Cold War Order’ (2017) 22 European Legacy-Toward New Paradigms 118; Wynnyckyj (n 19); Hill (n 34); Mathers (n 34).
<table>
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<th>Subject</th>
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<tr>
<td>Political Science</td>
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<td>53</td>
</tr>
<tr>
<td>Social Issues</td>
<td>2</td>
<td>54</td>
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</table>

3.3. COVID-19 pandemic during the Russian-Ukrainian War

As mentioned, through 2022, the COVID-19 pandemic further aggravated the situation in areas of Ukraine where there was already a lack of access to basic health services and other needed goods. It is also worth mentioning that, according to the WHO, as of 9 January 2022, when the current phase of the war started, only 34% of Ukrainian citizens had been fully vaccinated, and less than 2% had received a third dose. This is, unfortunately, similar to a comparatively low level of vaccination for diseases such as measles, diphtheria, tetanus, and whooping cough, with only 80% of children vaccinated compared to almost 100% in Western Europe. This is because many of those vaccines are not obligatory. Furthermore, before the war, Ukraine was highly economically diversified, with prominent differences between urban and rural areas. The latter, which are not as densely populated, still suffer from lingering issues connected with collective farming and related economic challenges. As a result, these areas lack hospitals and other medical establishments in close proximity to the settlements.

Armed conflict and political instability are hindering the implementation of effective measures to prevent the spread of COVID-19, including vaccination campaigns and border traffic control. The lack of immunity to other diseases, poorly functioning hospitals, and the priority given to the wounded further exacerbate an already fragile situation. As illustrated in Figure 4, COVID-19 cases in Ukraine were spiking at the time of the Russian invasion and have seemingly declined since then. However, it is important to note that this decline is likely a result of the disruption of efforts to track and address the spread of COVID-19 rather than an actual decrease in cases.

![Figure 4. Active COVID-19 cases in Ukraine](https://www.worldometers.info/coronavirus/country/ukraine/)

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More specifically, in areas under the control of the Ukrainian government before the onset of the war in 2022, efforts were being made to mount an effective response to the pandemic, albeit with varying degrees of success. The government implemented various restrictions and limitations to curb the spread of the virus, and initiatives were undertaken to ensure testing and vaccination access for the population. As a result, the number of COVID-19-related deaths in Ukraine remained low compared to other countries (as shown in Figure 4). However, it is important to note that the accuracy of this data may be compromised due to insufficient testing, which could lead to the misattribution of deaths to causes other than COVID-19.

However, the situation in the separatist-controlled areas is more complex. Many residents in these regions face challenges accessing healthcare and medications, making it difficult to track and treat COVID-19 cases. In the initial stages of the vaccination program, Ukraine faced supply shortages, and the separatist-held territories, lacking their own supply chain, relied on donations from Ukraine or Russia. The ongoing conflict and challenging circumstances make it difficult to accurately estimate the vaccination coverage in these regions and the types of vaccines administered. Therefore, caution is advised when interpreting the patterns depicted in Figures 4 and 5, as gathering precise statistical data during times of war is a challenging task. Consequently, COVID-19 poses an additional challenge to the conflict-affected regions in Ukraine and may result in an increase in fatalities among the population in these areas. The lack of a robust diagnostic system and limited access to adequate medical supplies exacerbate the situation, making it difficult to effectively diagnose and treat COVID-19 cases.

Figure 5. Daily COVID-19 deaths in Ukraine

ibid.
COVID-19, an infectious disease caused by the SARS-CoV-2 coronavirus, is a global challenge. As a result, scientists worldwide are conducting intensive research on the virus to understand the mechanisms of the disease, find effective treatments, and prevent its spread (see Table 4). It covers the period since the beginning of COVID-19 in Ukraine's territory in general, including the period after the start of the 2022 war. Among other things, scientists are investigating the mechanisms of action of the virus, searching for effective drugs and vaccines, understanding the causes and risk factors of the disease, and developing effective methods to prevent its spread.

This research spans a wide range of scientific fields, such as medicine, molecular biology, epidemiology, genetics, biomedical engineering, and many others. Research on COVID-19 is being conducted by scientists from all over the world, including academics, scientists from research institutes, and employees of pharmaceutical and biotechnology companies. Many academic and research institutions, as well as governments around the world, are committing significant funding to COVID-19 research to find effective treatments and prevent the spread of the disease.

**Table 4. Summary of COVID-19-related papers**

<table>
<thead>
<tr>
<th>WoS category</th>
<th>Citation topic</th>
<th>Number of papers</th>
<th>Citations</th>
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</thead>
<tbody>
<tr>
<td>Clinical &amp; Life Sciences</td>
<td>Healthcare Policy</td>
<td>5</td>
<td>57</td>
</tr>
<tr>
<td></td>
<td>Nerve Disorders</td>
<td>1</td>
<td>58</td>
</tr>
<tr>
<td></td>
<td>Antibiotics &amp; Antimicrobials</td>
<td>1</td>
<td>59</td>
</tr>
<tr>
<td></td>
<td>Trauma &amp; Emergency Surgery</td>
<td>1</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>Bacteriology</td>
<td>2</td>
<td>61</td>
</tr>
<tr>
<td></td>
<td>History of Medicine</td>
<td>1</td>
<td>62</td>
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</table>

57 Roy, Bhat and Ozair (n 11); Haque and others (n 11); Haydabrus and others (n 11); Rubin (n 11); Ociepa-Kicinska and Gorzalczynska-Koczgodaj (n 11).
58 Natalia Stepanova and others, 'Lifesaving Care for Patients with Kidney Failure during the War in Ukraine 2022' (2022) 17(7) Clinical Journal of the American Society of Nephrology 1079.
60 Ravinder Kumar and others, 'Response to: "Immunization in State of Siege: The Importance of Thermostable Vaccines for Ukraine and Other War-Torn Countries and Territories"' (2022) 21(7) Expert Review of Vaccines 1009.


Boris Kagarlitsky, Janina Puder and Stefan Schmalz, ‘“The Whole World Is Becoming More like Russia” A Conversation on Deglobalization in the Wake of the War in Ukraine’ (2022) 32 Berliner Journal fur Soziologie 489; John M Quinn and others, ‘COVID-19 at War: The Joint Forces Operation in Ukraine’ (2022) 16 Disaster Medicine and Public Health Preparedness 1753; Hong Bo, ‘Implications of the Ukraine War for China: Can China Survive Secondary Sanctions?’ (2022) 21(2) Journal of Chinese Economic and Business Studies 311; Bollfrass and Herzog (n 28); Jones (n 28); Higgott and Reich (n 28); Anghel and Jones (n 32).

Roy, Bhat and Ozair (n 11); Richard Armitage and Mariia Pavlenko, ‘Medical Education and War in Ukraine’ (2022) 72 British Journal of General Practice 944; Richard Armitage and Armitage Richard, ‘War in Ukraine: The Impacts on Child Health’ (2022) 72 British Journal of General Practice 272.

Agricultural Policy

Economics

Law

Management

Public, Environmental & Occupational Health

General & Internal Medicine

Psychiatry

International Relations


Eslami (n 51).
It is difficult to predict what the future of COVID-19 will look like in Ukraine. The COVID-19 pandemic is a global challenge that is still ongoing and has a significant impact on many countries worldwide, including Ukraine. The situation in Ukraine is influenced by various factors, such as vaccination rates, the emergence of new variants of the virus, adherence to preventive measures, and the effectiveness of public health strategies. Efforts are being made to improve vaccination coverage and access to healthcare services, but challenges persist.

Ongoing research and analysis of the pandemic’s impact on Ukraine, along with global trends, can provide valuable insights into potential future scenarios. International collaboration and the prioritisation of public health measures, combined with leveraging scientific expertise, can help in managing and overcoming the challenges posed by COVID-19.

4 DISCUSSION

The war in Ukraine has been ongoing since 2014, primarily involving areas in the east of the country where pro-Russian separatists are fighting against Ukrainian government forces. The conflict has had a huge and growing impact on the political, economic, and social situation in Ukraine and the broader region, making it the subject of study for many academic disciplines.

85 Freudlsperger and Schimmelfennig (n 31).
Publications in the humanities and social sciences focus on the conflict from the perspective of its causes and effects on the country's society and culture. Research in the natural sciences, such as medicine, has focused on the effects of armed conflict on the health of the population and the development of effective methods to treat and prevent conflict-related diseases. Research in technical sciences, such as engineering or computer science, has centred its research on the effects of the conflict on infrastructure and considerations for post-conflict reconstruction. Overall, research on the war in Ukraine can help understand the causes and effects of the conflict, develop ways to resolve it, and ensure lasting peace in the area.

The journal articles on the Ukrainian war can be divided into two main categories: those that describe the 2014 conflict and those that describe the situation after the 2022 attack. The first group of papers often focuses on local politics and attempts to understand the causes of the conflict. Many of these articles also describe possible scenarios for the future, including the possibility of an open war, but generally express scepticism about its likelihood. After the attack in 2022, the topics of the articles have shifted, with a greater emphasis on geopolitical changes and less concern about local ethnic conflicts within Ukraine.

The COVID-19 pandemic has posed unique challenges in post-2014 Ukraine, primarily due to the ongoing conflict in the country. The conflict has resulted in the loss of government control in certain areas, leading to disruptions in the supply of medications, including those needed for COVID-19. As a result, the rebel-held territories faced difficulties accessing vaccines and had to rely on alternative sources. Moreover, research papers on the COVID-19 situation in Ukraine highlight pre-existing healthcare access disparities between urban and rural areas. These disparities extend to vaccines for infectious diseases, further complicating the evaluation of statistics. Therefore, caution is advised when interpreting the data, and continuous revision is necessary. The 2022 conflict has added further uncertainty to the statistics as millions of people have either left the country or been displaced internally. Scholars emphasise in their papers that assessing the progress of the pandemic in many areas of Ukraine has become almost impossible. Additionally, the movement of people affected by the war may have implications for developing the pandemic in neighbouring countries. Consequently, it is widely recognised that evaluating the impact of the COVID-19 pandemic during the war in Ukraine and its effects on the population of neighbouring countries will require assessment once the conflict is over.

5 CONCLUSIONS

Academics worldwide are actively engaged in research related to the war in Ukraine, aiming to gain a comprehensive understanding of its causes, progression, and consequences. One crucial area of investigation focuses on analysing the root causes of the conflict. Many studies have centred on examining Russia's role in initiating and escalating the conflict that
commenced in 2014, as well as exploring internal political and social factors that may have contributed to the outbreak of war. Furthermore, researchers have delved into the international dimensions of the conflict, examining the responses of other states and international organisations and assessing their impact on the course of events, particularly concerning the 2022 conflict.

Another significant area of research has emerged, focusing on the ongoing course of the war and its anticipated aftermath. Scholars have extensively studied the effects of the conflict on civilians, encompassing aspects such as casualties, injuries, population displacement, limited access to healthcare and education, and the destruction of critical infrastructure. Additionally, considerable attention has been devoted to examining the potential reconfiguration of Ukrainian borders once the conflict concludes, exploring prospects for Ukraine’s integration into NATO and the EU, and analysing the broader geopolitical implications such moves may have for central and Eastern Europe.

Research efforts have also addressed the impact of the war on international relations, including changes in the security landscape and the influence on the foreign policies of the countries involved in the conflict. Furthermore, academics have conducted research on the effectiveness of various approaches to conflict management and resolution, such as mediation, negotiation, and international intervention.

Overall, the research conducted on the war in Ukraine and its relationship with the COVID-19 pandemic has provided valuable insights into the complex dynamics at play. It is widely acknowledged that Ukraine faced significant challenges in combating the pandemic even prior to the 2022 war. Factors such as the 2014 conflict, corruption, financial constraints within the healthcare system, territorial disparities in access to medical facilities, and political instability have all contributed to a challenging healthcare landscape. The sudden and open attack by Russian troops in 2022 further disrupted efforts to track and address the COVID-19 pandemic, as highlighted in studies summarised in Table 4. These studies shed light on the impact of the conflict on the pandemic response, making it more difficult to implement effective measures to mitigate the spread of the virus.

The analysis of research publications indicates a significant number of multidisciplinary studies and scholarly articles on the Ukrainian War, as depicted in Figure 3. The disciplines of Government and Law, International Relations, and History have particularly explored the origins of the conflict and potential geopolitical and local outcomes. Additionally, a considerable number of articles in the field of medicine have focused on the COVID-19 pandemic and its interaction with the war, specifically regarding the challenges in tracking and addressing the virus. It is worth noting that the authors acknowledge the difficulty of their work due to the rapidly evolving nature of the conflict and anticipate that a comprehensive evaluation will be necessary once the conflict is resolved.
In conclusion, the collective body of research on the war in Ukraine and its relationship with the COVID-19 pandemic has provided valuable insights into the conflict’s multifaceted nature and its impact on public health. These findings can contribute to the development of strategies for conflict resolution, long-term stability, and effective pandemic response in the region.

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АНОТАЦІЯ УКРАЇНСЬКОЮ МОVOЮ

Дослідницька стаття

ВЗАЄМОДІЯ КРИЗ: МЕППІНГ НАУКОВОГО ЛАНДШАФТУ ЩОДО ПЕРЕХРЕЩЕННЯ ТЕМ ПАНДЕМІЇ COVID-19 ТА РОСІЙСЬКО-УКРАЇНСЬКОЇ ВІЙНИ

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АНОТАЦІЯ

Вступ. У лютому 2022 року війська Російської Федерації атакували Україну на кількох фронтах, тим самим розпочавши війну, яка триває досі. Вторгнення викликало спротив у всьому світі, що призвело до санкцій, накладених на політиків і корпорації в Російській Федерації. Війна також залишила свій слід і в мистецтві, культурі, науці.

Методи. У цій статті ми аналізуємо війну в Україні та те, як її досліджують вчені з усього світу. Аналіз складається з трьох частин: (1) комплексний огляд кількості статей і матеріалів конференцій, пов’язаних із російсько-українською війною, у дисциплінах/категоріях, визначених у Web of Science (WoS); (2) основні теми та напрямки, обрані авторами; і (3) підсумок досліджень, які зосереджують увагу на питаннях, що стосуються COVID-19 під час війни. Остання тема особливо важлива, оскільки ситуація з COVID-19 в Україні була складною ще до вторгнення 2022 року, а воєнні дії, що тривають і зараз, ще більше її засвоїли. Для вищеозначеної аналізу ми використовували базу даних WoS з 2014 року (що охоплює першу російську атаку на Крим, Донецьку і Луганську області) до грудня 2022 року.

Результати та висновки. Війна в Україні стала важливим предметом вивчення для науковців. У міру її розгортання, кульмінацією якого стала пряма масована атака в лютому 2022 року, дослідницькі зусилля охоплювали все більше наукових галузей. Ці царини варіюються від політології та соціологічних досліджень до психології та маркетингу, а також інженерних наук і ланцюгів постачання.

Ключові слова: COVID-19, війна, Україна, Росія, Web of Science, бібліометрія.