EXAMINING THE IMPACT OF SOCIAL SECURITY PROGRAMS ON MILITARY PERSONNEL AND VETERANS: A SCIENTOMETRIC AND SCOPING REVIEW

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ABSTRACT

This study examines the role of social security programs in ensuring the well-being and economic stability of military personnel and veterans through a scientometric and scoping review approach. Using data from Scopus and Web of Science (WoS), an in-depth scientometric analysis was conducted to track publication trends, identify active countries and institutions, and analyze keyword co-occurrences. The top ten keywords identified are Social Security, Veterans, Military, Social Welfare, Disability, Military Spending, PTSD, Employment, Mental Health, and Social Policy. Additionally, the scoping review synthesized the literature to identify gaps and areas for further investigation. The findings suggest that increased military expenditure often results in lower economic growth and reduced social welfare, particularly in middle- and low-income countries, due to the diversion of resources from essential public services to military budgets. Conversely, social security programs such as those provided by the Providence VA Medical Center, have a positive impact on veterans' well-being, illustrating the importance of comprehensive support systems in military settings. The review also emphasizes the influence of public attitudes towards military conflicts on government policies and the necessity for robust social security measures in the face of aging populations and socio-economic challenges. This study uniquely contributes to our understanding of social security programs in military settings by emphasizing the importance of notational analysis in examining the intricate relationships between social support, technological advancements, and mental health, highlighting the need for comprehensive, interdisciplinary approaches to enhance socio-economic security, mental well-being, and human capital development among military personnel.

Keywords: Social security, military Personel, veterans, economic growth, scientometric

INTRODUCTION

Social security programs are government interventions that aim to provide individuals with sufficient income and support. These interventions can involve changes to earned income and mechanisms like cash transfers or other benefits (Kim et al., 2022). These programs play a vital role in addressing material deprivation and its impact on various outcomes, including health and well-being (Tang et al., 2022). For example, social protection programs have been shown to lower suicide mortality rates, highlighting their importance in promoting societal welfare and preventing negative outcomes (Sun et al., 2021). Additionally, social security initiatives like health insurance programs have positive effects on entrepreneurship by encouraging risk-taking and facilitating business creation, particularly in regions with unique economic and social characteristics (Iashchyshchak, 2019). Overall, social security programs are essential for ensuring economic stability, reducing inequalities, and improving the overall quality of life for individuals and communities.

Social security plays a crucial role in military contexts, especially when it comes to the well-being of individuals affected by military service. Research shows that elderly individuals who have served in the military for extended periods often experience a decline in life satisfaction due to compromised health and insufficient income (O'Leary & Tsui, 2022). Additionally, adolescents from military families face a higher risk of experiencing mental health issues, highlighting the importance of social support, particularly from peers, in mitigating these negative effects (Obinger, 2020). Furthermore, historical perspectives suggest that the establishment of welfare states during the time of mass warfare was driven by the need to compensate conscripted individuals for their sacrifices, underscoring the intricate relationship between military interests and social welfare systems (Zhao & Guo, 2021). Ultimately, strengthening social security measures and benefits for military personnel and their families is crucial in protecting their well-being and life satisfaction.

The well-being of service members and veterans in military settings is extremely important due to their unique demands and risks (Trachik et al., 2023). Social security programs play a crucial role in ensuring their overall well-being and resilience (Crane et al., 2023). Research emphasizes the significance of social support mechanisms for veterans, especially in the context of conflicts and wars like the Russian-Ukrainian war. This highlights the need for effective state-level support systems (Slozanska et al., 2023). Additionally, studies underline the importance of social protection services, including social insurance and assistance, in improving health service coverage and financial protection for vulnerable populations. This is crucial for achieving universal health coverage by 2030 (Yokobori et al., 2023). By using a scientometric approach to analyze trends and patterns in social security programs, a comprehensive overview can be provided to enhance the well-being and support systems for military personnel and veterans.

The primary objective of this article is to offer an overview of the research conducted on social security programs in military settings. In order to ensure the credibility of findings and reference sources in this field, it is imperative to employ evidence synthesis and scoping reviews. The primary objective of this study is to analyze pertinent information pertaining to social security within the military context, utilizing a scientometric approach and scoping review. The consolidation of existing literature on this subject is of utmost significance. It should be underscored that there is a dearth of previous research that has implemented this methodology to synthesize publication output regarding social security in the military context.

<div align="center">**METHOD AND ANALYSIS DESIGN**</div>

Scientometric Analysis

Scientometric analysis is a widely accepted approach for analyzing and understanding extensive scientific data. This method allows for a deep understanding of how a particular field evolves (Donthu et al., 2021). The use of scientometric parameters to assess the quality of research output is steadily increasing. Researchers employ scientometric analysis for various purposes, such as identifying emerging trends and evaluating journal performance (Struck et al., 2021). Additionally, they use it to investigate collaboration patterns and research components (Wachsmann et al., 2019), examine publication trends within a specific research domain (Abdullah, 2021), and explore the intellectual structure of a particular area in published works (Simao et al., 2021). In this study, we utilize scientometric analysis to observe patterns of research publications on social security, identify countries actively involved in publishing, and analyze the themes and subthemes conveyed through authors' keywords.

Scoping Analysis

The main purpose of scoping reviews is to systematically collect and record a wide range of available evidence (Munn et al., 2018). Therefore, the goal of this study is to thoroughly analyze the important aspects related to social security in military publications and bring together the existing literature in this research field. This scoping review was carried out to identify areas that require further investigation and gaps in our knowledge. The study followed the five-step scoping review framework established by Arksey and O'Malley (2005):

      1) Establishing the research question.
      2) Identifying relevant studies.
      3) Selecting studies.
      4) Data charting.
      5) Reporting results.

Establishing Research Question

The following research question serves as the basis for scoping analysis in this study:

      1) Based on the SPIDER (Sample, Phenomenon of Interest, Design, Evaluation, Research Type) tool (Cooke et al., 2012), what have previous studies on social security in military environments discovered as their main findings?

Identifying Relevant Studies
Database

To access scientific journal publications, institutional repositories, archives, and other collections of materials, it is necessary to utilize databases and search engines (Abdullah et al., 2020). For the purpose of this study, the Scopus and WoS databases were employed to analyze scientometric and scoping indicators. These databases were selected due to their emphasis on document citations compared to other databases (Vieira & Gomes, 2009). Furthermore, efforts were made to enhance the validity of the coverage analysis by improving metadata accuracy, document categorization, and discipline assignment. Hence, Scopus and WoS prioritize these factors (Stahlschmidt & Stephen, 2022).

Search Strategy

After the keywords, synonymous terms are found by consulting an encyclopedia. Table 1 displays the search strings that were used to retrieve publication lists from the Scopus and WoS databases. This search was conducted in May 2024, encompassing titles, abstracts, and keywords from both databases. No limitations were placed on the retrieved data during this process, including restrictions on date, publication type, or language.

Table 1

Search Strategy for Extracting Data from the Web of Science and Scopus Databases.

Database	Search Strategy	Records
Web of Science	Topic: ("social security" OR "Social welfare" OR "Retirement benefits" OR "Old-age pension" OR "Disability benefits") AND ("military" OR "army" OR "Navy" OR "airforces" OR "armed Forces")	389
Scopus	Article Title, Abstract, Keywords: ("social security" OR "Social welfare" OR "Retirement benefits" OR "Old-age pension" OR "Disability benefits") AND ("military" OR "army" OR "Navy" OR "airforces" OR "armed Forces")	881

Software

ScientoPy and VOSviewer are two widely used research tools in academic settings. ScientoPy is a Python script that extracts valuable information from research articles, including main subjects, authors, countries, and associated documents. This tool uses author-provided keywords to generate insights, thereby mitigating potential biases that may arise from independent investigations (Ruiz-Rosero et al., 2017). However, it is important to acknowledge the potential for bias when analyzing studies that use author name analysis, as instances of name similarities may occur (Ruiz-Rosero et al., 2017).

VOSviewer, developed by Van Eck and Waltman (2010), is a software application that facilitates the analysis of keyword co-occurrences, particularly in the context of social security in the military domain. It employs advanced mapping techniques to transform CSV data into visually informative diagrams or clusters (Abdullah, 2022). These mapping strategies offer significant advantages for researchers interested in analyzing specific data points, such as authors' keywords (Abd Aziz et al., 2021; Abdullah & Othman, 2022).
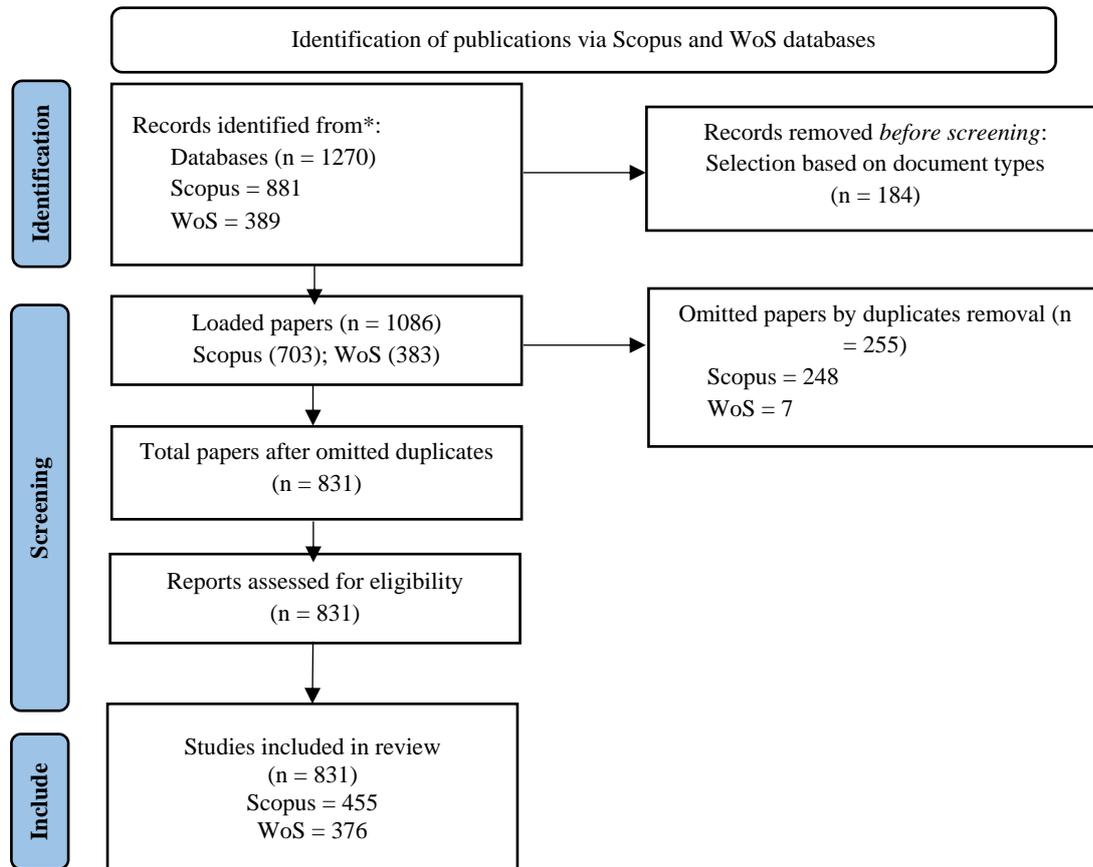
Selecting Studies
Publications Merge and Removal of Duplicates

The data from both databases were compiled and processed using ScientoPy, a tool commonly employed in academic research. During this stage, several standardization procedures were implemented to ensure consistency and accuracy in the data. These procedures involved replacing commas in the author's name with semicolons, removing dots, commas, and any unique formatting from the author's name, as well as eliminating duplicate entries that shared identical titles and authors. By adhering to this systematic approach, the datasets' accuracy and reliability were enhanced. A visual representation of the pre-processed data outcomes is depicted in Diagram 1.
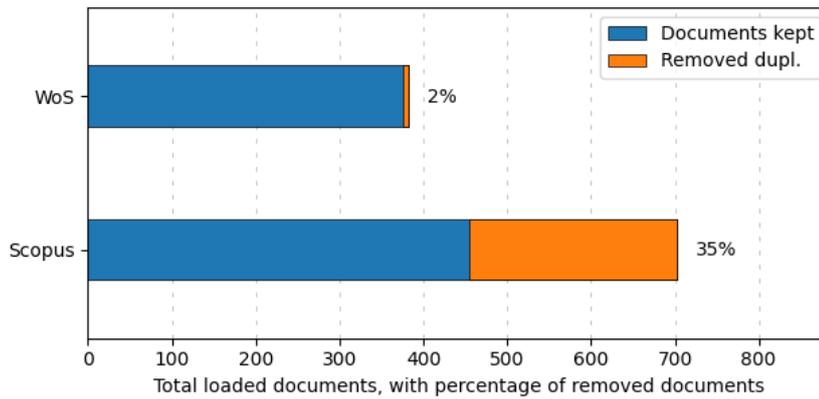
Diagram 1

Flow Diagram of Research of Databases and Registers

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┌──────────────────────────────────────────────────────────────┐
│        Identification of publications via Scopus and WoS databases │
└──────────────────────────────────────────────────────────────┘

┌─────────────────────────┐          ┌──────────────────────────────┐
│ Records identified from*:│   ───▶   │ Records removed before screening:│
│   Databases (n = 1270)  │          │ Selection based on document types│
│   Scopus = 881          │          │         (n = 184)            │
│   WoS = 389             │          └──────────────────────────────┘
└─────────────────────────┘

┌─────────────────────────┐          ┌──────────────────────────────┐
│ Loaded papers (n = 1086)│   ───▶   │ Omitted papers by duplicates removal (n│
│ Scopus (703); WoS (383) │          │         = 255)               │
└─────────────────────────┘          │   Scopus = 248               │
                                      │   WoS = 7                    │
                                      └──────────────────────────────┘

┌─────────────────────────┐
│ Total papers after omitted duplicates│
│         (n = 831)       │
└─────────────────────────┘

┌─────────────────────────┐
│ Reports assessed for eligibility│
│         (n = 831)       │
└─────────────────────────┘

┌─────────────────────────┐
│ Studies included in review│
│         (n = 831)       │
│   Scopus = 455          │
│   WoS = 376             │
└─────────────────────────┘
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Sidebar labels: **Identification**, **Screening**, **Include**

The preprocessing script used in ScientoPy gives more importance to Web of Science (WoS) documents compared to Scopus documents. Figure 1 shows the preprocessing steps carried out for documents related to social security in military contexts obtained from two main databases, WoS and Scopus. The figure indicates that WoS had a low duplication rate, with only 2% of documents being eliminated, while Scopus had a much higher duplication rate of 35%. This means that the WoS dataset is cleaner, with fewer redundant documents, while Scopus had more overlapping records, requiring extensive removal of duplicates. These procedures are essential to ensure the quality and accuracy of data in scientometric analysis, emphasizing the importance of preprocessing to obtain reliable research insights. Diagram 1 provides additional information about the source dataset, which includes a total of 1270 papers from both the WoS and Scopus databases. ScientoPy is used to automatically classify the publications into different categories, such as conference papers, articles, reviews, proceedings papers, and press pieces. As a result, 184 documents, which include books, letters, and errata, were excluded. After reconciling the data, this study used a total of 831 entries from both databases, specifically 376 papers from WoS and 455 from Scopus. Additionally, 248 duplicate entries from Scopus and 7 from WoS were removed.

Figure 1

Data Combination and Duplicates Removal

Data Charting

growth graph presented here illustrates the progress of publishing in the Scopus and WoS databases. This data is important for understanding the overall trend in publications. To gain a more comprehensive understanding of the articles selected in the previous phase, we analyze the evolution graph of the top 10 authors' keywords and examine how these keywords co-occur.

Reporting Results

In accordance with the objectives of the study, a concise summary and report of the findings were prepared. ScientoPy was employed for the analysis of publication growth, identification of active countries, and examination of keywords. VOSviewer was utilized as a descriptive metric to determine the co-occurrence of authors' keywords. It is important to note that, for the generation of co-occurrence results using VOSviewer, a minimum of two keywords is required. Additionally, as a precautionary measure against the duplication of authors' keywords, the thesaurus files were carefully reviewed and modified, following the recommendation by Abdullah et al. (2022).

The methodology employed in this study, known as a scoping review, aims to provide a comprehensive overview of existing research in a specific field. One of the primary objectives of conducting a scoping study is to identify any gaps or deficiencies in the current research body. In this study, our goal was to thoroughly examine and describe the current state of research on social security, as well as identify areas where the literature is lacking. To conduct this analysis, articles obtained from Scopus and WoS were pre-processed using ScientoPy. The specific inclusion criteria for this scoping review can be found in Table 2.

      1) Written in English.
      2) Publications from 2013 and later.
      3) Describe primary research.
      4) Use the keyword social welfare in the authors keywords.
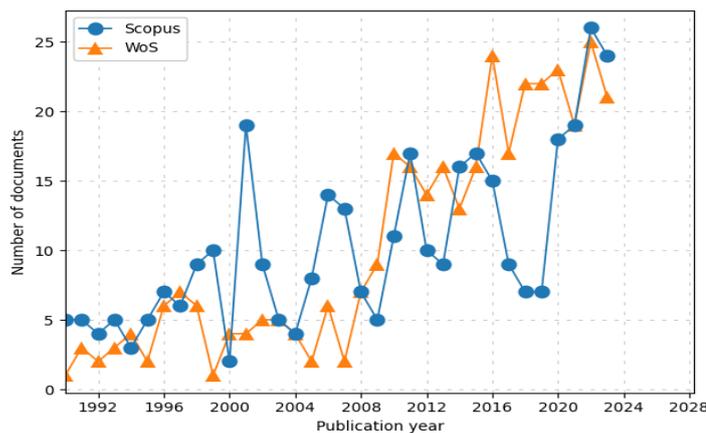
RESULTS

Scientometric Outcome
Publication Growth

Figure 2 presents the growth of publications on social security in military settings from 1992 to 2023. The data used for this graph is sourced from Scopus and Web of Science (WoS). Each year is indicated by the number of documents, with blue circles representing Scopus and orange triangles representing WoS. The graph clearly demonstrates a general increase in publication volume over the years, indicating a growing academic interest in this subject. There are distinct peaks in the early 2000s and from 2016 onwards, suggesting intensified research activity, potentially driven by policy changes or a greater emphasis on veterans' welfare. Despite some fluctuations, both datasets consistently reveal an upward trend in the number of documents, with Scopus consistently having a higher number of documents compared to WoS, particularly in recent years. This trend emphasizes the growing recognition of the significance of social security for military personnel and the expanding body of research in this crucial field.

The increasing number of publications on social security in military contexts reflects a growing interest among academics. This highlights the complexities involved in ensuring the well-being and protection of military personnel and their families. It is crucial to have ongoing dialogue between scholars, military subject matter experts (SMEs), and social security professionals to improve interprofessional practice in military social work. Research shows that effective leadership engagement is important for successfully implementing research findings, emphasizing the need for better communication between the research community and operational leaders (Youles et al., 2023). Understanding the stress levels and well-being of military personnel undergoing training is also essential, as studies have demonstrated the impact of stress in complex environments (Cordelli, 2023). Furthermore, the evolving nature of social work ethics in international contexts highlights the need for a moderately universalist approach that respects diversity and human rights. This emphasizes the complexity and contextual nature of ethical practice in the field (Yu et al., 2021). By incorporating insights from these various sources and promoting collaboration and communication, the effectiveness of interprofessional practice in military social work can be enhanced.

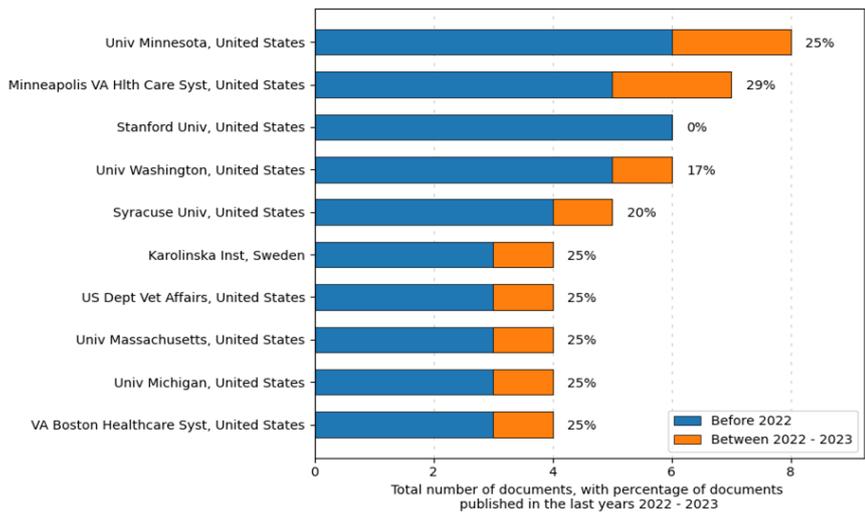**Figure 2**

The Evolution of Publication Growth

(Source: Author, using ScientoPy 2.1.3)

The Most Influential Academic Works

Figure 3 presents an overview of the academic contributions to the study of social security within the military. It shows the total number of documents produced by different institutions and compares the percentage of documents published before 2022 to those published between 2022 and 2023. Two institutions, the University of Minnesota and the Minneapolis VA Health Care System, stand out for their influential research. The University of Minnesota has produced approximately 8 documents, with 25% of them being published recently. Similarly, the Minneapolis VA Health Care System has around 7 documents, with 29% of them being recent publications. These findings indicate that these institutions are actively and consistently contributing to the field. On the other hand, Stanford University, with approximately 6 documents, has not produced any recent publications since 2022, suggesting that its influence is mainly based on earlier research. Other institutions, such as the University of Washington (17% recent), Syracuse University (20% recent), Karolinska Institute, US Department of Veterans Affairs, University of Massachusetts, University of Michigan, and VA Boston Healthcare System (each with 25% recent), have a balanced mix of older and newer influential works, which demonstrates their enduring presence in the field. This distribution highlights the dynamic nature of research in this domain, with some institutions actively contributing while others rely on their past contributions to maintain their influence.

Figure 3
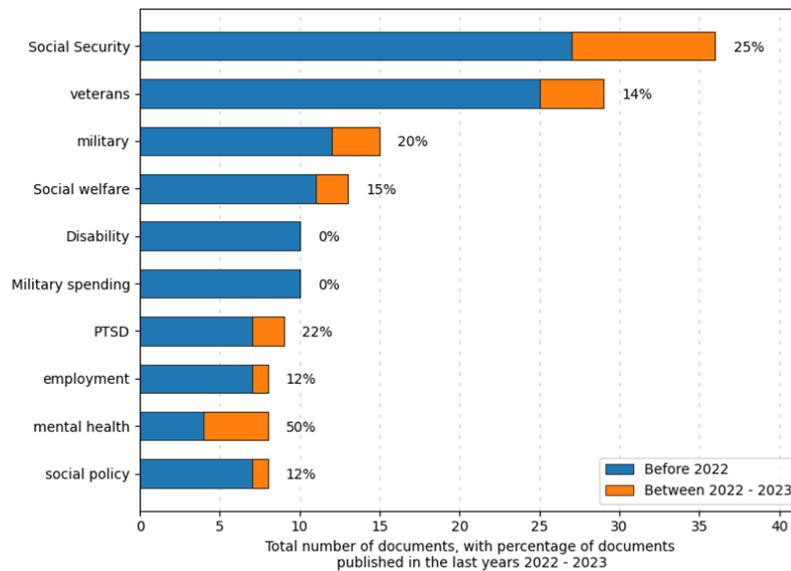
Institution Bar Trends Graph

Authors' Keywords

Figure 4 presents the distribution of authors' keywords in academic research on social security within the military. It highlights significant areas of focus and trends. The keyword "Social Security" has the highest number of documents, with approximately 35 publications. About 25% of these publications are recent, suggesting a sustained interest in this area of research. The keyword "Veterans" closely follows with 30 documents, and 14% of them are recent, indicating its continued relevance. Keywords such as "Military" (20% recent), "Social Welfare" (15% recent), and "PTSD" (22% recent) reflect ongoing research in these areas. However, keywords like "Disability" and "Military Spending" do not have any recent publications, suggesting a decline in current focus. Interestingly, the keyword "Mental

Health" has approximately 6 recent publications, accounting for 50% of the total, indicating a growing interest in this specific area. Keywords like "Employment" and "Social Policy" maintain a steady level of attention, with 12% of publications being recent, showing consistent but modest research activity. Overall, this figure highlights both enduring and emerging interests within military-related social security research.

Figure 4

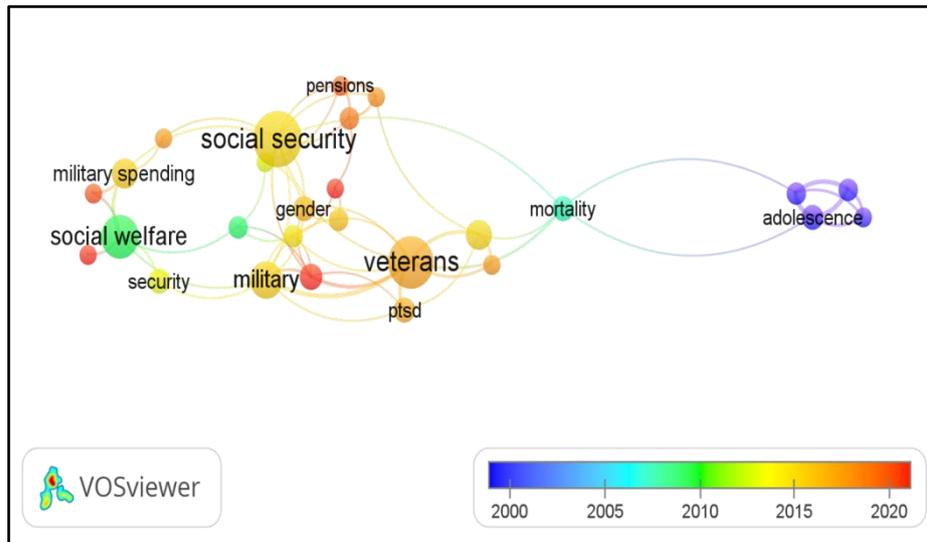*The Bar-trend Graph of Research Themes and Topics Emerging*

(Source: Author, using ScientoPy 2.1.3)

The figure displays a network visualization of author keywords related to social security in the military. It highlights important themes and patterns over time (Figure 5). The keywords "Social Security" and "Veterans" are the most notable, frequently appearing alongside terms like "pensions," "gender," "military," and "PTSD." This indicates their central role in research. There is a clear clustering effect around "social security" and "social welfare," revealing interconnected research themes that encompass economic and mental health aspects. The color gradient, ranging from blue to red, represents the timeline from 2000 to 2020. Recent research interests, such as "adolescence" and "mortality," are more pronounced. This visualization underscores the multidisciplinary and dynamic nature of research in this field, reflecting its complexity and the interrelation of related topics.

These findings suggest a more comprehensive exploration in the multidisciplinary and evolving nature of research related to social security within the military. The interconnectedness of various topics such as pensions, gender, mental health (including PTSD), social welfare, and newer areas like adolescence and mortality highlights the need for an integrated approach to understand the broad impacts and nuances of social security on military personnel. This comprehensive exploration can provide deeper insights into how these factors interact and influence the overall well-being and support systems for military members and veterans.

Figure 5

Co-occurrence of Authors' Keywords

Scoping Outcomes

This section thoroughly examines how social security programs is addressed in military-related publications. This analysis is an important first step in identifying areas of knowledge deficiency and guiding future research efforts. It contributes to the existing body of knowledge and best practices. To conduct this analysis, we formulated qualitative research questions and used the SPIDER tool as our search strategy. Table 3 provides a compilation of publications based on extended author keywords obtained from ScientoPy. Initially, the information in Table 3 was condensed from a total of 268 documents. It is worth noting that this study specifically focuses on the scoping analysis of research articles. Therefore, the other 259 records that were not categorized as research papers were excluded at this stage.

Table 3

List of Inclusive Publications

No	Sources	Sample	Phenomenon of Interest	Design	Evaluation	Research Type
1.	Kennedy et al., (2024)	Participants associated with the Center for Innovation in Long-Term Services Supports at the Providence VA Medical Center and the School of Public Health at Brown University, located in Providence, Rhode Island	The innovation in long-term services and supports, particularly focusing on the improvements and effectiveness of these services within the context of the Providence VA Medical Center and related institutions	Involves a combination of observational and evaluative methods to assess the innovations in long-term services and supports	To understand the impact and effectiveness of innovative long-term services and supports provided by the Providence VA Medical Center and the School of Public Health at Brown University	Mixed methods

No.	Author (Year)					Type
2.	Hung-Pin, & Wang (2022)	Empirical data for GDP from the World Bank, social welfare, and military expenditure data from National Statistics of Taiwan, and SIPRI Military Expenditure Database, covering the period from 1991 to 2020	The impact of military expenditure on economic growth and social welfare in Taiwan, exploring whether increased military spending promotes or hinders these aspects	An endogenous growth model combined with an autoregressive distributed lag (ARDL) bounds testing approach to analyze the relationships between military expenditure, economic growth, and social welfare	Increased military expenditure leads to lower economic growth and decreased social welfare, suggesting that reallocating budget from military to public spending could achieve better economic and social outcomes	Quantitative
3.	Baranowski (2022)	8,172 respondents from ten European countries, surveyed between April 28 and May 11, 2022, by Datapraxis and YouGov on behalf of the European Council on Foreign Relations (ECFR)	Public attitudes towards the war in Ukraine and how these attitudes impact the policies of individual European governments, particularly in relation to energy security and social welfare	A survey-based approach, where respondents were categorized into different camps (Peace, Justice, Swing voters, and the Rest) based on their answers to specific questions about the war in Ukraine	Shows significant divisions in public opinion across European countries, with the Peace camp being the largest group overall, and highlights how these public attitudes influence governmental positions and policies towards the war in Ukraine	Quantitative
4.	Manning (2018)	Discusses the broad field of life sciences, including various historical periods and scientific advancements from 1945 to the present, focusing on international collaboration and social movements	The transformation of life sciences over the twentieth century, including the development of molecular biology, genomics, and the integration of social sciences in epidemiology and ecology	A historical and analytical review, examining the evolution of life sciences through different eras, particularly focusing on the impact of social, political, and economic factors	that scientific advancements in life sciences are deeply interconnected with social movements, international collaboration, and the exchange of knowledge across various boundaries, rather than being solely the result of isolated researchers	Qualitative
5.	Zhang et al., (2017)	Multi-country panel data from BRICS (Brazil, Russia, India, China, South Africa) and G7 (the US, Japan, Germany, the UK, France, Italy, Canada) countries, covering the	The effect of military spending on social welfare, specifically looking at social welfare expenditures and the social welfare index	Involves panel cointegration analysis and impulse response function to analyze the relationship between military spending and social welfare across different countries	Indicates that military spending enhances social welfare expenditures in developed countries, while the effect is ambiguous in emerging	Quantitative

					economies, and it promotes the social welfare index based on FMOLS estimation	
6.	Cassani & Carbone (2016)	Case studies from three African countries: Benin, Ghana, and Mali, which were selected to illustrate the socioeconomic consequences of competitive authoritarianism	The impact of competitive authoritarianism on the wellbeing of citizens, specifically how democratic institutions within these regimes influence government commitment and capacity to improve social welfare	A time-series cross-sectional analysis, which examines data over a period of time across different countries to understand the relationship between competitive authoritarianism and social welfare indicators	Even within competitive authoritarian regimes, electoral mechanisms can lead to some social improvements, suggesting that these regimes lie between full authoritarianism and genuine democracy in terms of their impact on citizen wellbeing	Mixed Methods
7.	Danielsson et al., (2015)	49,321 Swedish males who presented for mandatory conscription at ages 18-20 years, with data collected from various registers and surveys	The association between adolescent cannabis use and later social outcomes, such as unemployment and social welfare assistance, in adulthood	A longitudinal cohort study, where the participants were followed over time to observe the long-term effects of cannabis use	Frequent cannabis use in adolescence is associated with higher risks of unemployment and social welfare assistance in adulthood, even after adjusting for various confounders	Quantitative
8.	Ahn et al., (2014)	47 victims of the Imperial Japanese Army's sex slavery, with 10 current residents of the House of Sharing, 10 former residents who have passed away, and 27 individuals not residing at the House	The life history and human rights violations experienced by sex slave victims of the Imperial Japanese Army, focusing on their pre- and post-war lives and their fight to restore their human rights	Involves qualitative methods, including the collection and analysis of oral testimonies, video recordings, interviews, and various documents related to the victims' experiences and protests	Highlights the ongoing pain and suffering of the victims, the need for political and social support, and the importance of preventing such human rights violations in the future through proper acknowledgment and compensation from Japan	Qualitative
9.	Sheen (2013)	The populations of Northeast Asian countries, specifically Japan, South Korea, and China, as they face aging demographics and the associated	The rapid aging of populations in Northeast Asia and its impact on social security spending, economic stability, and regional security dynamics	A comparative analysis of demographic trends, social security policies, and economic data across different countries in Northeast Asia, focusing on historical and	Northeast Asian countries will need to significantly increase their social security spending to address the challenges	Quantitative

social and economic challenges	projected data	posed by aging populations, which may also affect their defense budgets and overall economic policies

DISCUSSION

Based on the keyword analysis, it becomes apparent that notational analysis, multivariate analysis, and kinetics are strongly associated with social security. This finding emphasizes the critical role of notational analysis in enhancing the comprehension and administration of social security systems within the military. Notational analysis has had a significant impact on social security in the military context by influencing the assessment and management of social anxiety, technological advancements, and social support systems. Numerous studies have demonstrated that technological changes bring about both opportunities and threats to military security, potentially impacting arms control, and social stability (Molendowska, 2022). Furthermore, social anxiety among soldiers can influence their interpersonal information processing and judgment, subsequently affecting their integration and performance in military environments (Yin et al., 2020). Social support plays a vital role in reducing stress and improving mental well-being among military personnel, with higher levels of support being correlated with milder symptoms of PTSD (Blais et al., 2021). Overall, the intersection of social support, technological change, and mental health in military settings underscores the intricate and diverse effects of notational analysis on social security.

Social security plays an essential role in the military context, encompassing various dimensions such as mental health, value orientation, and human capital development. Recent studies have shed light on the impact of the COVID-19 pandemic on French military personnel, revealing an increased use of psychotropic drugs as an indication of the significant strain on mental health (Dotson et al., 2023). Similarly, research on the Czech Armed Forces has emphasized the importance of professional ethics and value orientation to foster sustainable development within the military organization (Gerber, 2020). Moreover, the development of human capital has been identified as a critical factor in enhancing socio-economic security within the military community, with a particular focus on areas such as education quality, labor market imbalances, and public health (Sanchez et al., 2022). These findings highlight the intricate nature of social security in the military, which takes into account mental well-being, ethical values, and human capital development to ensure the overall security and effectiveness of military personnel.

Future research in the military context will investigate several key areas pertaining to social security. These areas encompass the integration of technological advancements, the improvement of social support systems, and the socio-psychological adaptation of military personnel. Research studies will delve into the impact of new technologies on security and social structures, shedding light on the dual nature of these advancements as both opportunities and threats (Molendowska, 2022). Furthermore, there will be a strong emphasis on the adaptation of military personnel, particularly in terms of social and psychological support, as this is essential for enhancing overall well-being and operational efficiency (Vasyuk, 2020). Additionally, ongoing evaluations of social security policies and their legal frameworks will play a crucial role in ensuring robust support systems for military personnel and their

families (Semyannikova, 2022). Ultimately, the aim of future research is to develop comprehensive strategies to bolster the social security of military personnel in an ever-evolving security landscape.

Based on a scoping analysis, nine studies have been published in Scopus and WoS indexed journals since 2013. These studies shown that majority of research samples indicate a significant impact of military expenditure on social welfare. However, the findings vary, with some studies demonstrating a detrimental effect on economic growth and social welfare, while others yield ambiguous results depending on the specific context and countries involved. It is important to note that the impact of military expenditure on social welfare and economic growth differs across various contexts and countries. For instance, Grigorakis and Galyfianakis (2022) highlight a positive relationship between military spending and out-of-pocket healthcare payments, suggesting a crowding-out effect on public health financing. This finding is further supported by Ikegami and Wang (2022), who demonstrate a significant crowding-out effect of military expenditure on domestic government health spending, particularly in middle- and low-income countries. Additionally, Carter et al. (2021) argued that leaders' preferences in funding military spending can influence social spending and economic growth outcomes. Taken together, these studies suggest that while military expenditure can stimulate demand for healthcare, it often competes with resources allocated to social welfare programs, potentially hindering economic growth and social welfare outcomes, particularly in less affluent nations.

The present study investigates the phenomenon of social security within the military, encompassing various aspects pertaining to both military and social welfare programs. Numerous research studies have examined the influence of military expenditure, social security measures, and public perceptions on economic growth, social welfare, and policy-making across diverse countries and contexts. The existing literature underscores the significance of establishing a robust pension system for military personnel to enhance the attractiveness of military service (Gibson, 2022; Zelenko & Zelenko, 2023). Furthermore, it has shed light on the challenges associated with implementing reforms aimed at bolstering social protection for military members (Ali & Solarin, 2020). Moreover, the pivotal role of social security in the broader framework of national security, especially during periods of military aggression, has been underscored (Varnalii, 2022). These studies underscore the imperative of adopting comprehensive approaches that integrate economic security with human social security to safeguard the well-being and rights of military personnel in the face of evolving global threats and challenges.

CONCLUSION

The study on social security programs in military settings utilized a scientometric and scoping review approach to analyze the existing body of research. The findings from various studies emphasize the multifaceted role of social security programs in addressing the well-being and economic stability of military personnel and veterans. Methodologically, the research involved using scientometric analysis to track publication trends, identify active countries and institutions, and analyze keyword co-occurrences. The scoping review provided a broad synthesis of the literature, identifying gaps and areas requiring further investigation.

The results demonstrate that military expenditure has a complex and often negative impact on social welfare and economic growth, especially in middle- and low-income countries. Quantitative studies employing methods such as endogenous growth models and panel cointegration analysis indicate that increased military spending often leads to lower economic growth and decreased social welfare. This occurs as resources are diverted from public spending to military budgets. For example, empirical data

from Taiwan and a comparative analysis of BRICS and G7 countries support the view that military expenditure can crowd out social welfare investments, negatively affecting health and social outcomes.

On the other hand, qualitative studies and historical analyses highlight the importance of social security programs in mitigating the adverse effects of military service on individuals' health and well-being. These programs, such as the long-term services and supports provided by institutions like the Providence VA Medical Center, have shown positive impacts on veterans' life satisfaction and health. Moreover, public attitudes towards military conflicts, such as the war in Ukraine, significantly influence government policies on energy security and social welfare, demonstrating the interconnectedness of public opinion and policy-making.

Furthermore, the review identifies crucial areas for future research, including the integration of technological advancements, the improvement of social support systems, and the socio-psychological adaptation of military personnel. The need for robust social security measures, particularly in the context of aging populations and the socio-economic challenges faced by Northeast Asian countries, is also highlighted. Overall, the study emphasizes the importance of adopting comprehensive and multidisciplinary approaches to enhance the social.

Limitation of the Current Study

The inclusion of the list of publications is one of this study's most fundamental limits. The analysis of bibliometrics and scoping in this study relies on the Scopus and WoS databases; however, future researchers would benefit from using Google Scholar, PubMed, and ERIC to enhance the existing findings based on this study.

Contribution to the Body of Knowledge and Practices

Academics and researchers can benefit greatly from the comprehensive analysis presented in this paper on the future of social security programs in military research. The study explores the complex effects of military spending on both economic growth and social welfare, illuminating the often negative consequences for middle- and low-income countries, which face a diversion of resources from public expenditure to military budgets. Additionally, it highlights the positive impact of social security programs on the well-being and health of veterans, particularly through the provision of long-term services and support. The research underscores the critical role of public attitudes in shaping government policies and emphasizes the importance of strong social security measures, especially in the context of aging populations. By identifying gaps and suggesting areas for future research, such as technological integration and improved social support systems, the study takes a multidisciplinary approach to enhancing social security for military personnel and veterans, thereby influencing policy-making and interprofessional practice in the field of military social work.

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