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REVIEW

Factor Impacting Quality of Life Among Sepsis Survivors During and After Hospitalization: A Systematic Review of Current Empirical Evidence

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Background: There remains a gap in understanding post-sepsis outcomes, particularly regarding the factors that influence the quality of life (QOL) among sepsis survivors during and after hospitalization.

Objective: To determine factors impacting QOL among sepsis survivors during and after hospitalization based on the evaluation and synthesis of current evidence.

Methods: This review encompassed studies published from January 2020 to December 2024, sourced from Scopus, PubMed, Medline, ScienceDirect, CINAHL Plus with Full Text, and Web of Science. The process of identifying, screening, excluding, and including articles followed the guidelines set by the Preferred Reporting Items for Systematic Reviews (PRISMA). Data synthesis for theme generation was conducted using the convergent integrated analysis framework as recommended by the Joanna Briggs Institute.

Results: A total of 1164 records were identified from the databases. After removing 130 duplicates, 1034 articles remained for screening based on their titles and abstracts according to the inclusion and exclusion criteria. At this stage, 1021 articles did not meet the criteria and were excluded, leaving 13 articles eligible for full-text screening. During this phase, 5 articles were excluded for various reasons, resulting in eight studies being included in the systematic review. Data synthesis of these studies revealed seven themes related to factors impacting QOL among sepsis survivors during and after hospitalization: 1) Physical Health Dimension, 2) Mental Health Dimension, 3) Treatment During Hospitalization, 4) Spiritual Dimension, 5) Social Support, 6) Mortality, and 7) Blood Biomarkers.

Conclusion: This systematic review provides valuable insights into the factors affecting the quality of life among sepsis survivors during and after hospitalization. These findings enhance the current knowledge base and offer clinicians, researchers, and policymakers actionable insights to improve outcomes and well-being for sepsis survivors.

Keywords: hospitalization, sepsis, sepsis survivors, quality of life, systematic review

Background

Sepsis, characterized by life-threatening organ dysfunction due to a dysregulated host response to infection, is the leading cause of death from infection. It impacts over 49 million people worldwide and results in approximately 11 million deaths each year.[1] The current incidence (per 100,000) of infection and associated survival rates across continents are as follows: In the Americas, there are approximately 270–640 cases, with a survival rate ranging from 75–84%. Europe exhibits a higher incidence, with approximately 640–2500 cases and a survival rate of approximately 55–55%. Around 75% of cases in the Middle East manifest an incidence of 640–1600, with a corresponding survival rate of approximately 65–75%. China reports an incidence of approximately 640–1600 infected cases, coupled with a notable survival rate of 90–92%. In Asia, the prevalence is approximately 440–640 blood infections and 270 cases, with an associated survival

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rate of approximately 70–80%.[2] These statistics can be attributed to the growing recognition of sepsis, an aging population, the increased prevalence of chronic conditions, and the widespread use of immunosuppressive therapies and invasive procedures.[3]

Over the past decade, many countries have improved sepsis management by implementing evidence-based protocols, which have been particularly effective in resource-rich settings.[4] The mortality rate of sepsis has decreased by up to 3% due to the use of goal-directed therapy and bundled care processes. Research indicates that educating healthcare providers on standardized sepsis protocols has resulted in a 22.6% reduction in sepsis-related mortality rates, even when these protocols were only partially followed.[5] The prevalence of sepsis is increasing, with estimated global survival rates of 26 million people each year.[3] However, sepsis survivors face a 7% to 43% mortality rate one year after discharge and a 44% to 82% mortality rate five years after discharge. One-fifth of sepsis survivors are re-hospitalized within 30 days after discharge due to recurrent infections and chronic illnesses such as cardiovascular disease, acute renal failure, or chronic obstructive pulmonary diseases. Furthermore, sepsis survivors experience short-term and long-term symptoms, including fatigue, dysphagia, muscle loss, physical dysfunction, cognitive impairment, psychological problems, and a decline in quality of life.[6]

Surviving sepsis encompasses enduring both physical and mental challenges during critical illness, leading to alterations in quality of life. Health-related quality of life (HR-QoL) after sepsis mirrors that of individuals who have survived other critical illnesses not involving sepsis.[7] Previous studies have highlighted that sepsis survivors often grapple with cognitive impairment, functional disability, financial strain, and newly acquired physical and psychiatric conditions post-recovery.[8–10] The introduction of post-sepsis syndrome aims to capture the decline in QOL among sepsis survivors,[11] delineating cognitive, psychological, physical, and medical changes experienced by them. Moreover, sepsis survivors commonly exhibit persistent symptoms like dyspnea, fatigue,[12–15] depression, and impaired functional status, all of which contribute to the deterioration of HR-QoL.[16,17] Emerging evidence suggests that sepsis can significantly diminish HR-QoL. For instance, a previous study revealed that a majority of sepsis survivors experienced a decline in their QOL, which was linked to a heightened risk of long-term mortality.[18] Notably, 77.0% of survivors exhibited a worsening QOL, with 8.2% experiencing a decrease in annual income and 8.9% newly registered as disabled compared to their pre-sepsis status. Moreover, 62.3% and 66.1% of survivors demonstrated an increase in the Charlson and Elixhauser comorbidity indices, respectively, further contributing to the diminished QOL. Among sepsis survivors, post-sepsis disability and heightened comorbidity indices were associated with an elevated risk of 3-year all-cause mortality.[18] Additionally, another study conducted among the general Dutch population found that HR-QoL among sepsis survivors, 28 days post-discharge, was significantly lower compared to the general population, particularly in the physical domain.[19] Factors such as length of hospital stay, comorbidities, advancing age, and female gender were identified as contributors to the diminished Physical Component Scale of HR-QoL. Hence, interventions aimed at enhancing QOL among sepsis survivors should be initiated during hospitalization and extended into the community.[19]

This systematic review addresses a critical gap in the current understanding of sepsis outcomes by focusing on the factors that influence the QOL among survivors during and after hospitalization.[20] With the increasing prevalence of sepsis and a growing population of survivors, there is an urgent need to examine the determinants of post-sepsis life quality comprehensively.

Objective

To determine factors impacting the quality of life among sepsis survivors during and after hospitalization based on the evaluation and synthesis of current evidence.

Methods

Identify Relevant Studies

In this systematic review, we followed the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines[21] to delineate the process of literature identification, screening, exclusion, and inclusion. In February 2024, we systematically searched six electronic databases—Scopus, PubMed, Medline, ScienceDirect, CINAHL Plus with Full Text, and Web of Science—to identify relevant studies published between 2020 and 2024. These studies aimed to explore factors influencing the quality of life among sepsis survivors during and after hospitalization. We employed Boolean phrases to combine

search terms such as "Hospitalization", "Quality of Life", and "Sepsis". Additionally, we manually searched the reference lists of included studies to uncover any additional relevant literature. All identified references were managed using EndNote for subsequent analysis.

Study Selection

Titles and abstracts were initially reviewed to identify potential studies meeting the eligibility criteria. Subsequently, the full texts of selected studies were assessed to ascertain their relevance to the review's objectives. Inclusion criteria were then applied to ensure that only studies relevant to our research question were included, while exclusion criteria were employed to eliminate literature not aligned with the scope of the review (Table 1).

Quality Assessment

The objective of the quality assessment is to evaluate the methodological robustness of each study and determine the extent to which it has addressed potential biases in its design, conduct, and analysis. In our study, two researchers independently assessed the methodological quality of the included studies using the Joanna Briggs Institute (JBI) critical appraisal tools, which are specifically designed for systematic reviews.[22]

Data Extraction

The standardized chart for data extraction (Supplementary Table 1) developed for this review included the following data for each study: References, Published year, Country, Settings, Target population, Study design, Sample size (n), Age of participants (mean), Quality assessment, Purpose of Study, Main Outcome (Factor Impacting Quality of Life, QOL), QOL Measurement, Themes (factor influencing QOL), Implications/Suggestions.

Data Synthesis

In this review, we utilized the convergent integrated analysis framework, recommended by the Joanna Briggs Institute (JBI) for systematic reviews, to synthesize data from the included studies. This involved extracting themes from the main findings of the studies by discerning commonalities and disparities. Moreover, sub-themes were abstracted to capture more specific aspects of the findings, mirroring the approach employed by qualitative researchers in thematic analysis.[23]

Results

Search results

Following the PRISMA guidelines,[24,25] 1164 articles were initially identified, with no additional articles found from other resources. Among these, 130 duplicate articles were identified and subsequently removed. Subsequently, the remaining articles (1034) were screened based on their titles and abstracts according to the inclusion and exclusion criteria (Table 1). At this stage, 1021 articles did not meet the inclusion criteria and were therefore excluded, leaving 13 articles eligible for full-text screening. During the full-text screening phase, 5 articles were excluded for various reasons, including not being related to factors contributing to the quality of life during and after hospitalization (n = 3), being a protocol (n = 1), and being a systematic review (n = 1). Consequently, eight studies were included in the systematic review (Figure 1).[25]

Table 1 Inclusion and Exclusion Criteria

Inclusion Criteria	Exclusion Criteria
• Studies included sepsis survivors aged 18 years or older. • Studies related to factors contributing to the quality of life of sepsis survivors during and after hospitalization. • Studies published in the English language. • Studies published between 2020 and 2024. • Full-text accessibility of the articles.	• All types of reviews, unpublished master's theses and doctoral dissertations, conference proceedings, abstracts, pilot studies, protocols, letters to the editor, brief reports, or statement papers. • Studies involving animal samples.

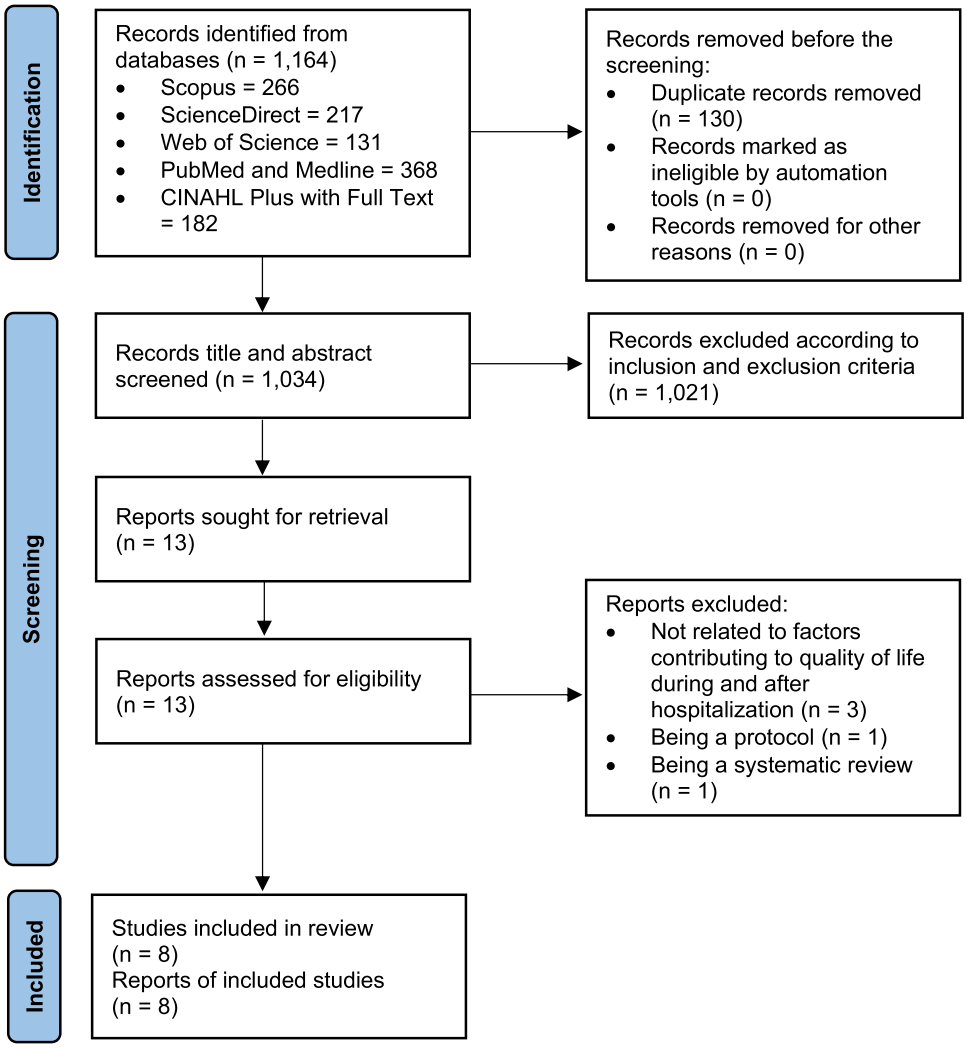

Figure 1 Flow Diagram.
Notes: Adapted from Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ 2021;372:n71. doi: 10.1136/bmj.n71.[25]

Description of Included Studies

Table 2 shows that most included studies were published in 2023 and 2021 (each n = 3, 37.5%). All eight included studies were conducted in various countries such as Iceland, Germany, China, Japan, the United States, South Korea, and Thailand (each n = 1, 12.5%). Most of the studies were conducted in Intensive Care Units (ICUs) (n = 3, 37.5%). Three were cohort studies (n = 3, 37.5%), two were cross-sectional, one was a randomized control trial (n = 2, 25%), and one was a longitudinal study (n = 1, 12.5%). The sample sizes varied, with 50% (n = 4) of included studies having sample sizes ranging between 1 and 200. Most of the studies included target populations of patients with post-sepsis (n = 3, 37.5%) and patients admitted to the ICU with sepsis (n = 2, 25%). Among the validated scales used to measure quality of life, the shortened 36-Item Short Form Health Survey, SF-36 (n = 2, 18.2%), and The 5-level EQ-5D version, EQ-5D-5L (n = 3, 27.3%) were the most popular ones.

Assessment of Methodological Quality

The methodological quality of the included studies was evaluated using the JBI critical appraisal checklist.[22] The results show that the methodological quality contents were clearly reported in the included studies (average of 75.3%). Detailed information regarding the quality assessment for each study can be found in Supplementary Table 1.

Table 2 Characteristics of Included Studies

Characteristics	Number of Included Study (N)	Percentage (%)
Publication Year		
2023	3	37.5
2022	1	12.5
2021	3	37.5
2020	1	12.5
Country		
Iceland	1	12.5
Germany	1	12.5
China	1	12.5
Japan	1	12.5
United States	1	12.5
South Korea	1	12.5
Thailand	1	12.5
Multi-country*	1	12.5
Study Setting		
ICU	3	37.5
ICU Recovery Clinic	1	12.5
Community Setting	1	12.5
University Hospital	1	12.5
Hospital (General Ward)	1	12.5
Internal Medicine Ward	1	12.5
Study Design		
Cohort study	3	37.5
Cross-sectional study	2	25
Randomized Control Trial	2	25
Longitudinal study	1	12.5
Sample Size		
1–200	4	50
>200–400	2	25
>400	2	25
Target Population		
Patients with post-sepsis	3	37.5
Patients admitted to ICU and had sepsis	2	25

(*Continued*)

Table 2 (Continued).

Characteristics	Number of Included Study (N)	Percentage (%)
Patients admitted to ICU and on a ventilator	1	12.5
Patients with septic shock	1	12.5
Patients admitted to the hospital (general ward) and had sepsis	1	12.5
Quality of Life Measurement		
EQ-5D-5L	3	27.3
SF-36	2	18.2
EQ-5D-3L	1	9.1
The 12-item Short Form (SF-12, version 2)	1	9.1
The Japanese 20-item generic health-related quality of life questionnaire (HRQoL-20)	1	9.1
The Japanese Language Version of the Impact of Event Scale-Revised (IES-R-J)	1	9.1
The Spirituality Rating Scale (SRS-A)	1	9.1
The combination of multiple factors**	1	9.1

Notes: One study may report more than one characteristic, so the total number of included studies can be more than 8. *Australia, New Zealand, Saudi Arabia, Denmark, and the United Kingdom. **Annual income level, disability, comorbidities, and long-term mortality.

Description of the Factor Impacting Quality of Life

A summary of the findings on factors impacting quality of life is provided in Table 3 and Figure 2. According to the data synthesis, seven major themes have emerged: 1) Physical Health Dimension, 2) Mental Health Dimension, 3) Treatment During Hospitalization, 4) Spiritual Dimension, 5) Social Resources, 6) Mortality, and 7) Biomarker. The summary of each theme is articulated below.

Physical Health Dimension

Six included studies[18,26,28,30–32] reveal that the physical health of sepsis survivors during and after hospitalization significantly impacts their QOL. For instance, a study by Dong et al investigated the effect of frailty on QOL and

Table 3 Factors Influencing Quality of Life

Reference	Factor Influencing Quality of Life (Themes)						
	Physical Health Dimension	Mental Health Dimension	Treatment During Hospitalization	Spiritual Dimension	Social Support	Mortality	Blood Biomarker
[26]	X						
[27]		X					
[28]	X	X					
[29]			X				
[30]	X	X		X			
[31]	X						
[18]	X				X	X	
[32]	X				X		X

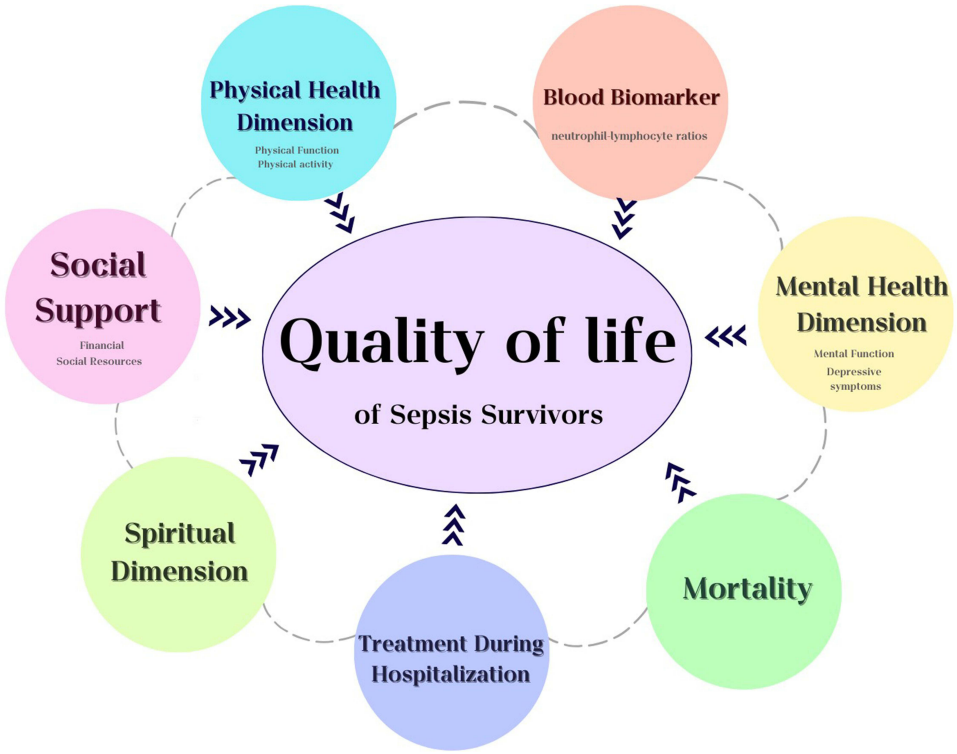

Figure 2 Model Summary of Factor Influencing Quality of Life of Sepsis Survivors.

mortality one year after sepsis. They found that the overall QOL of patients aged ≥ 60 years and diagnosed with sepsis upon admission to the ICU significantly decreased after one year due to physical frailty.[28] Moreover, a Randomized Controlled Trial conducted by Amundadottir et al investigated the effects of intensive twice-daily upright mobilization compared to once-daily upright mobilization on the duration of mechanical ventilation, ICU, and hospital lengths of stay, and improvements in health-related QOL and physical function.[26] The results indicated that although there was no significant difference in QOL between the intensive twice-daily upright mobilization and once-daily upright mobilization groups, the former commenced upright mobilization on day seven of ICU stay and were mobilized upright on 31% of ICU days, whereas the latter began on day eight and mobilized upright on 22% of ICU days.[26]

Mental Health Dimension

Three included studies[27,28,30] reveal that the mental health of sepsis survivors during and after hospitalization significantly impacts their QOL. For example, a study by Boede et al explores trajectories of depressive symptoms in sepsis survivors. They found that the course and severity of depressive symptoms were significantly associated with reduced health-related QOL at discharge from the ICU.[27] Additionally, a prospective longitudinal study with a quantitative comparative design by Kurematsu & Ikematsu (2023) determines the differences between the quality of life for sepsis and non-sepsis survivors and investigates the factors affecting QOL for sepsis survivors, and the changes in their QOL over time.[30] The results illustrated that at discharge and one month after discharge, stress significantly affected health-related QOL in both the sepsis and non-sepsis survivor groups. However, at ICU discharge, stress significantly affected health-related QOL only in the non-septic group.

Treatment During Hospitalization

Only one study investigated the impact of seven days of intravenous infusions of hydrocortisone 200 mg/day and a matching placebo on the health-related quality of life (HRQoL) of septic shock survivors at six months. The study included 1080 patients who received hydrocortisone and 1071 patients who received the matching placebo. The results

showed that there were no differences in the overall HRQoL at six months between the two groups in any EQ-5D-5L domain.[29]

Spiritual Dimension

One study investigated the factors of spirituality on quality of life in sepsis survivors and non-sepsis survivors over a period of time. The study included 41 patients with sepsis and 40 without sepsis. The results illustrated that at discharge and one month after discharge, spirituality significantly affected HRQoL in both the sepsis and non-sepsis survivor groups. However, at ICU discharge, spirituality significantly affected HRQoL only in the non-sepsis group.[30]

Social Support

Two studies[18,32] revealed that social support significantly impacts the QOL of sepsis survivors during and after treatment in hospitals. Consistent with studies by Rattanahongsa et al, the research examined the effect of social support on health-related quality of life in post-infection patients,[32] the study by Oh & Song (2021) found that 8.2% of sepsis survivors had their annual income level decreased and 8.9% were newly registered as having a disability. Moreover, most sepsis survivors experienced a worse QOL due to lack of social support.[18]

Mortality

One study investigated the association between quality of life and long-term mortality in 119,660 sepsis survivors primarily diagnosed between 2010 and 2018, who survived for more than one year after diagnosis.[18] The results revealed that sepsis survivors who underwent procedures such as endotracheal intubation, mechanical ventilation, continuous renal replacement therapy (CRRT), and vasopressor use during treatment exhibited a significantly higher incidence of worsening quality of life. Furthermore, this deterioration in quality of life was significantly associated with a higher risk of long-term mortality.

Blood Biomarker

One study investigated the factors influencing the health-related quality of life in 157 post-sepsis patients who were being prepared for hospital discharge.[32] The results showed that the blood biomarker of the systemic inflammatory response, neutrophil-lymphocyte ratio (NLR), influenced the health-related quality of life in post-sepsis patients who had been treated at the hospital.

Discussion

Emphasizing and evaluating QOL among sepsis survivors during and after hospitalization is necessary because it offers a holistic, patient-centered, and long-term perspective on the impact of ITBC. It ensures that healthcare interventions are truly beneficial to all aspects of a patient's life, supports informed decision-making in healthcare policy, and guides the development of effective chronic disease management strategies. Our review indicates that the physical health of sepsis survivors during and after hospitalization significantly impacts their QOL. Specifically, the overall QOL of patients diagnosed with sepsis upon admission to the ICU significantly decreased after one year, largely due to physical frailty. This finding aligns with a qualitative study conducted by Schade Skov et al, which aimed to explore and understand the consequences of sepsis experienced by survivors. The study revealed that sepsis survivors frequently encountered fatigue, social withdrawal, and anxiety. Moreover, they experienced psychological and cognitive impairments as the most influential factors affecting daily life.[33] Similarly, another study discovered that most sepsis survivors exhibited impairments related to physical fitness and function after hospital discharge, leading to a loss of independence and autonomy in performing daily activities.[34] Moving forward, future research should concentrate on developing interventions that target both physical and psychological rehabilitation to improve long-term outcomes and quality of life for sepsis survivors.

Another finding of our study show that the mental health dimension was associated with QOL in sepsis survivors during and after hospitalization. According to a recent study, Kim et al illustrated that the QOL of long-term intensive care unit survivors negatively correlates with mental health issues.[35] Additionally, Tripathy et al showed that intensive care unit-related psychiatric morbidity in low-middle-income countries is significantly associated with poor QOL at

discharge from the ICU, including symptoms of post-traumatic stress disorder, anxiety, and depression.[36] Moreover, a systematic review and meta-analysis by McIlroy et al evaluated the effect of ICU diaries on post-traumatic stress disorder symptoms, anxiety, depression, and health-related quality of life in ICU survivors. They found that ICU diaries decrease anxiety and depression and improve health-related quality of life.[37] For future research, screening of sepsis survivors for symptoms of stress, anxiety, depression, and post-traumatic stress disorder should be considered even in patients with few symptoms and highlights the importance of long-term observation, within 1–2 years after discharge from ICU or hospitalization, as well as evaluating the impact of sociocultural factors on mental health outcomes in patients from different backgrounds is needed. Additionally, investigating mental health intervention programs to improve QOL among sepsis survivors during and after hospitalization is crucial to optimizing strategies for effectively managing this healthcare crisis.

One included study in our review determined the impact of treatment during hospitalization on QOL in septic shock survivors. However, hydrocortisone treatment did not show an association with improved QOL at 6 months and after 90 days in survivors. A previous study by Mirza et al suggests that low-dose corticosteroids may offer improved hemodynamic response in patients with septic shock who do not respond to fluids or vasopressor therapy. However, it is cautioned against administering them routinely or as the sole treatment for sepsis.[38] Similarly, Liang et al propose that clinical corticosteroids could be beneficial for sepsis patients, potentially increasing vasopressor-free days, reducing ventilation duration, and decreasing ICU and hospital mortality rates. Nevertheless, their effect on 28-day, 90-day, and long-term mortality does not appear significant.[39] For future research, investigating baseline HRQoL measures is essential. Furthermore, given the lower scores in the physical health-related quality of life domain, exploring the effects of corticosteroid use during hospitalization on the body system and finding interventions to prevent and improve HRQoL in sepsis survivors is warranted.

The spiritual dimension, identified in our study review as a consistent and important factor in the quality of life of sepsis survivors, is considered one of the most important resources people turn to when they or someone they love is experiencing serious health problems.[40] In a recent study, Bulut et al claim that spiritual care provided in the ICU positively affected patients' spiritual well-being, hope, loneliness, life satisfaction levels, and quality of life in critical illness survivors.[41] Additionally, Eaton et al revealed associations between post-intensive care syndrome and the presence of spiritual needs in critical illness survivors.[42] Caring for the spiritual dimension can help patients find meaning in life, which, in turn, may improve overall health outcomes and quality of life.[42] Furthermore, Willemse et al found that spirituality is an essential component of quality of life, leading to the development of complementary and possibly more effective spiritual care strategies for severely ill or dying patients in the ICU. These strategies aim to alleviate the suffering of patients and their relatives by including attention to the spiritual or existential component in their treatment.[43] For future research, exploring the long-term impact of spiritual care interventions on the well-being and quality of life of critically ill patients, as well as investigating culturally tailored approaches to spiritual care, could provide valuable insights for optimizing patient-centered care in intensive care settings.

Social support plays a pivotal role in physical rehabilitation and the transition process upon discharge home in sepsis survivor. Langerud et al found that social support remains significant for critically ill patients even three months post-survival. They highlighted its positive correlation with patients' QOL.[44] Additionally, Eaton et al observed that post-crisis survivors who received independent social support exhibited improved health outcomes and QOL.[42] For future research, it is imperative to explore the long-term effects of social support on the QOL of critically ill patients. This includes developing guidelines for promoting social support to enhance efficiency in patient care by placing the patient at the center. Establishing comprehensive guidelines for caring for patients in critical condition will be essential in this regard.

Our findings indicate that most sepsis survivors who experienced endotracheal intubation, mechanical ventilation, continuous renal replacement therapy (CRRT), and vasopressor use during treatment were associated with worsening QOL and mortality. In agreement with findings from previous studies, Choi et al showed that all adult patients who received extracorporeal membrane oxygenation (ECMO) therapy in the ICU experienced quality of life worsening such as unemployment, decreased income, and new disabilities at 12 months after treatment.[45] Additionally, among these factors, acquiring a new disability significantly increased 3-year mortality.[46] Moreover, Al Rabayah et al found that the QOL prior to ICU admission in critically ill cancer patients was identified as a predictor of mortality in cancer patients

treated in the ICU.[47] For future research, identifying factors predicting early mortality can be connected to caring for sepsis survivors. Additionally, investigating rehabilitation programs to improve physical function and reduce new disabilities can promote quality of life among sepsis survivors during and after hospitalization.

Interestingly, our review found that the blood biomarker of the systemic inflammatory response, the neutrophil-lymphocyte ratio (NLR), influenced the QOL of sepsis survivors. NLRs were related to morbidity and impacted physical function. Some studies reported high NLRs during sepsis, causing muscle weakness and fatigue, symptoms that lead patients to cope with long-term disability after the illness.[48,49] Additionally, sepsis survivors express feelings of weakness, discomfort, exhaustion, and lack of motivation in daily life, which affect their health-related quality of life.[50] Future research could explore the longitudinal impact of the NLR on health-related quality of life among sepsis survivors. Additionally, investigations into interventions aimed at mitigating the physical and psychological effects of sepsis to enhance long-term outcomes and well-being are warranted.

Study Limitations

While this systematic review takes a comprehensive approach, it is important to acknowledge several limitations. First, restricting the review to articles published in English between 2020 and 2024 may have introduced publication bias, potentially missing relevant studies in other languages or outside this timeframe. This bias could lead to an incomplete picture of the available evidence and potentially skew the findings. Second, variations in sample size, study design, and geographic location among the included studies may limit the generalizability of the findings. Selection bias might arise due to these variations, as certain populations or regions could be overrepresented or underrepresented, affecting the applicability of the results to broader populations of sepsis survivors. Due to differences in populations, settings, and outcome measures, the observed heterogeneity across studies posed challenges in drawing definitive conclusions. This heterogeneity might result in inconsistent findings and complicate the synthesis of evidence, thereby impacting the conclusions' reliability. Additionally, some studies may not have assessed all factors influencing QOL among sepsis survivors, leading to an incomplete understanding of the topic. This incomplete assessment could result in gaps in knowledge and hinder the identification of all relevant factors affecting QOL.

The review's focus on factors influencing QOL during and after hospitalization may have overlooked broader contextual factors or long-term outcomes. Limiting the scope in this way might exclude important aspects of recovery and well-being that occur outside the hospital setting, thus providing an incomplete picture of the survivors' overall experience. Finally, the limited availability of longitudinal data tracking QOL over extended periods restricted insights into the long-term recovery trajectory of sepsis survivors. Without sufficient longitudinal data, it is difficult to fully understand the trajectory of recovery and the lasting impacts of sepsis on survivors' quality of life. Acknowledging these limitations is crucial for accurately interpreting the findings and identifying future research avenues to address these gaps. Future research should aim to include a broader range of studies, incorporate diverse populations, and conduct longitudinal assessments to provide a more comprehensive understanding of QOL among sepsis survivors.

Conclusion

This systematic review highlights the significant factors influencing the QOL among sepsis survivors, including physical and mental health, treatment interventions, spiritual well-being, social support, mortality risk factors, and biomarkers. Addressing these factors with targeted interventions and comprehensive support strategies is crucial for improving the well-being and long-term outcomes of sepsis survivors. Future research should explore broader contextual factors, diverse populations, and longitudinal QOL outcomes to enhance our understanding and management of sepsis-related morbidity. These insights can guide clinicians, researchers, and policymakers in optimizing care and support for sepsis survivors, ultimately improving their QOL and resilience.

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The authors report no conflicts of interest in this work.

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