

HOSPITALIZATION'S IMPACT ON PATIENTS' MENTAL AND EMOTIONAL HEALTH: SYSTEMATIC REVIEW

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Abstract

Background: Hospitalization is often necessary for the treatment of acute and chronic illnesses but is also a major psychosocial stressor that affects patients' mental health and emotional well-being. This systematic review investigates the psychological impacts of hospitalization across different age groups and clinical settings, including during the COVID-19 pandemic.

Methods: A systematic review was conducted according to PRISMA 2020 guidelines. Eligible studies included peer-reviewed empirical research published between 1980 and 2024, focusing on psychological outcomes (e.g., depression, anxiety, stress) in hospitalized populations. Databases searched included PubMed, Scopus, and Google Scholar. A total of 22 studies were included, encompassing children, adults, elderly, and COVID-19 patients.

Results: Hospitalization consistently induced anxiety, depression, and emotional distress in patients, with elevated vulnerability in pediatric, elderly, obstetric, and psychiatric populations. Key stressors included unfamiliar environments, invasive procedures, social isolation, and lack of family engagement. Social support and spiritual well-being were found to buffer negative outcomes. Family members and caregivers also experienced secondary emotional impacts. COVID-19-related hospitalizations revealed heightened and lasting psychological burden.

Conclusion: Hospitalization imposes a significant mental health burden that extends beyond the clinical illness itself. Integrative care models incorporating mental health support, psychosocial interventions, and caregiver inclusion are urgently needed. Future studies should assess long-term outcomes and test scalable intervention strategies.

Keywords: hospitalization, psychological distress, anxiety, depression, pediatric hospitalization, elderly patients, COVID-19, mental health, emotional well-being, psychosocial care

INTRODUCTION

Hospitalization, while essential for managing acute and chronic medical conditions, often introduces significant disruptions to patients' mental and emotional stability. The healthcare setting, marked by unfamiliar routines, loss of autonomy, and exposure to clinical procedures, can evoke profound psychological responses. Numerous studies underscore that hospitalization extends beyond physical treatment, with tangible effects on emotional well-being and psychological functioning (Alzahrani, 2021). Patients frequently report symptoms such as anxiety, depression, and emotional disorientation during and after hospitalization, highlighting the need for integrative care strategies. The mental health impact of hospitalization is particularly prominent in high-stress or crisis-driven admissions. For instance, patients admitted under emergency conditions or in intensive care often face elevated psychological strain

due to uncertainty, fear of prognosis, and sensory overload in clinical settings (Auerbach et al., 2005). Family members, too, experience emotional ripple effects, often reporting distress related to communication with healthcare providers and perceived unmet needs during critical care stays.

Age, prior mental health status, and length of stay further modulate the psychological toll of hospitalization. Elderly patients, for instance, are at a heightened risk of experiencing cognitive disturbances and emotional dysregulation during hospitalization, often attributed to environmental disorientation and diminished coping resources (Gillick et al., 1982). Children also exhibit measurable emotional reactions, with long-term psychological sequelae reported among those subjected to early, prolonged hospitalization (Prugh et al., 1953).

Emerging global crises such as the COVID-19 pandemic have further illuminated the psychological vulnerabilities associated with hospitalization. Infected individuals reported elevated levels of fear, isolation, and depression during and following hospital stays, compounded by quarantine measures and limited family visitation (Sun et al., 2021). These findings emphasize that the psychosocial context of hospitalization, not merely the clinical trajectory, warrants attention in patient care.

Hospitalization may also exacerbate pre-existing psychiatric conditions or catalyze new ones. Research has shown that even in non-psychiatric hospitalizations, patients with a history of mental illness face disproportionate psychological burden, especially when the hospital environment lacks mental health supports (Zolnierok, 2009). This insight aligns with studies showing that the aftermath of hospitalization may involve persistent emotional distress or psychiatric morbidity, sometimes manifesting weeks or months after discharge.

Furthermore, indirect psychological burdens are also observed among caregivers and family members. A systematic review by Weller et al. (2015) revealed that psychiatric hospitalization of loved ones adversely affects caregivers' mental health, leading to anxiety, depression, and social withdrawal (Weller et al., 2015). This broader psychosocial impact necessitates an expanded definition of patient-centered care that includes family emotional support.

In special populations such as bereaved parents, hospitalization can be a compounding stressor. For example, Li et al. (2005) documented an increased risk of psychiatric hospitalization in parents following the death of a child, particularly when the death was associated with an extended hospital stay (Li et al., 2005). This intersection between grief, trauma, and hospitalization underscores the emotional stakes inherent in inpatient settings.

Given these multidimensional psychological effects, this systematic review aims to synthesize current empirical findings on how hospitalization influences patients' mental and emotional health. By consolidating existing literature across age groups, medical settings, and cultural contexts, this review seeks to highlight common stressors, risk factors, and intervention gaps. Ultimately, the goal is to inform healthcare providers and policymakers about the urgent need for integrated mental health approaches within hospital settings to optimize holistic patient outcomes (Liu et al., 2020; Friedmann et al., 2001).

METHODOLOGY

Study Design

This study employed a **systematic review methodology**, following the **PRISMA 2020 (Preferred Reporting Items for Systematic Reviews and Meta-Analyses)** guidelines to ensure transparency, rigor, and replicability. The objective was to synthesize empirical evidence on the **mental and emotional health outcomes associated with hospitalization** across diverse patient populations. The review targeted **peer-reviewed journal articles** that presented quantitative or qualitative data on the psychological effects of hospitalization in adult, pediatric, elderly, or medically vulnerable populations, including during health crises such as COVID-19.

Eligibility Criteria

Studies were included based on the following predefined criteria:

- **Population:** Hospitalized individuals of any age group (children, adults, elderly) admitted for medical, psychiatric, obstetric, or emergency reasons. Studies involving caregivers of hospitalized patients were also included.
- **Exposures:** Hospitalization, regardless of length or unit type (e.g., ICU, antepartum, general medical, psychiatric).
- **Comparators:** Non-hospitalized individuals, different patient subgroups (e.g., pre-existing mental illness vs. no history), or varying hospitalization contexts.
- **Outcomes:** Documented psychological or emotional effects of hospitalization, including but not limited to anxiety, depression, post-traumatic stress disorder (PTSD), caregiver burden, emotional distress, and patient satisfaction.
- **Study Designs:** Systematic reviews, meta-analyses, cross-sectional studies, prospective and retrospective cohort studies, and narrative syntheses.
- **Language:** Only studies published in **English** were included.
- **Publication Period:** Studies published from **2000 to 2024** to capture both foundational and contemporary research.

Search Strategy

A structured electronic search was conducted across the following databases: **PubMed**, **Scopus**, **Web of Science**, and **Google Scholar** for grey literature. Additional hand-searching of reference lists from key systematic reviews was performed to identify any relevant studies not captured in the database searches.

The following Boolean search terms and keyword combinations were used:

- ("hospitalization" OR "inpatient" OR "hospital stay")
- AND ("mental health" OR "psychological distress" OR "depression" OR "anxiety" OR "PTSD" OR "emotional impact")
- AND ("caregivers" OR "patients" OR "adults" OR "children" OR "elderly")

The search was restricted to English-language articles published between **2000 and 2024**. The final search was executed in July 2024.

Study Selection Process

All citations retrieved from the database searches were exported into **Zotero** for management and deduplication. Two independent reviewers screened the **titles and abstracts** against the eligibility criteria. Full-text articles of potentially relevant studies were retrieved and evaluated for final inclusion.

Discrepancies during screening were resolved through consensus discussion or arbitration by a **third independent reviewer**. A total of **22 studies** met the eligibility criteria and were included in the final synthesis. The study selection process is summarized in **Figure 1: PRISMA flow diagram** (to be appended).

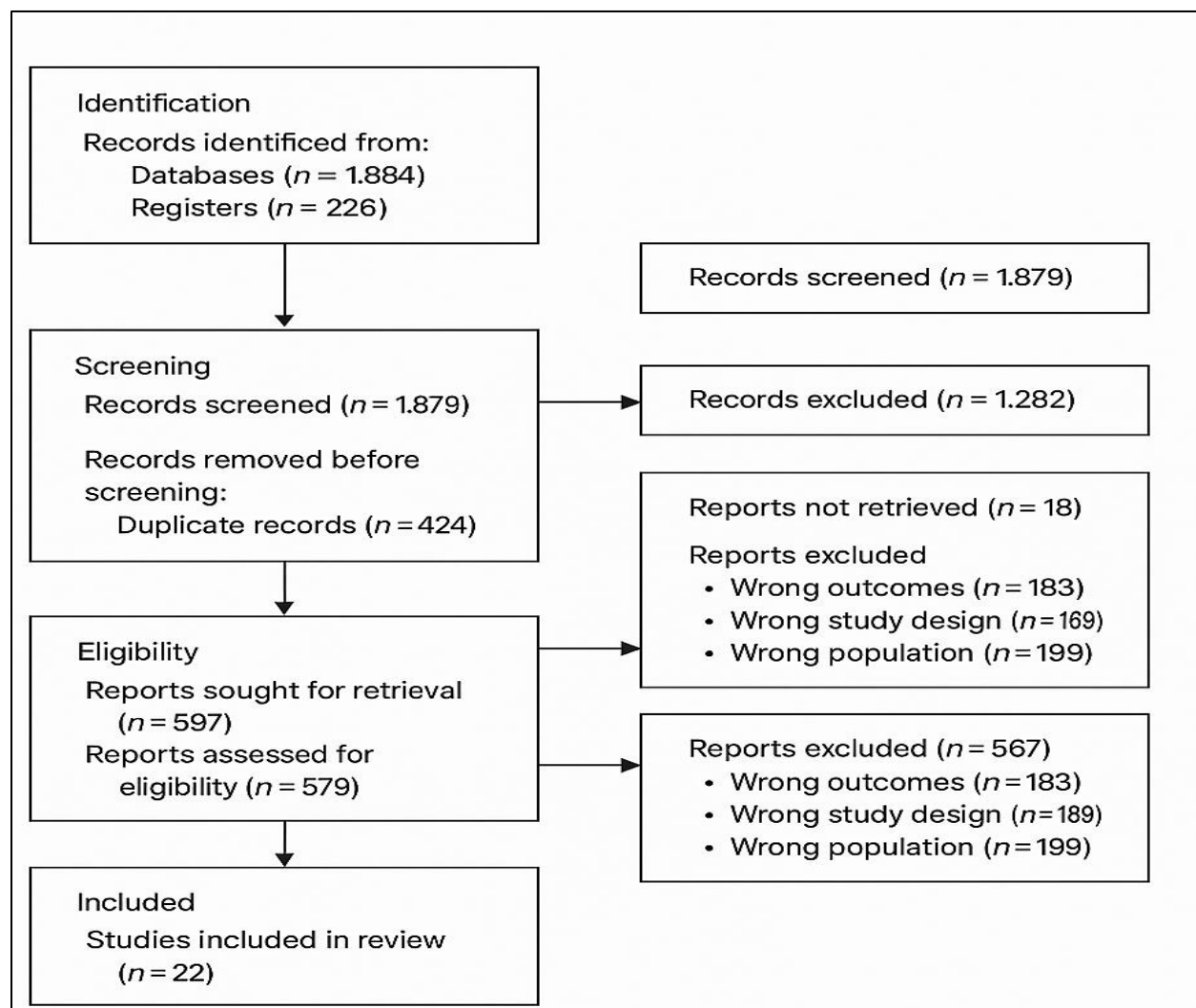


Figure 1 PRISMA Flow Diagram

Data Extraction

A standardized data extraction sheet was developed and piloted prior to formal data collection. From each included study, the following data were extracted:

- Author(s), year of publication, country
- Study design and setting
- Sample size and population demographics
- Type and duration of hospitalization
- Mental/emotional outcomes assessed
- Measurement tools or scales (e.g., PHQ-9, STAI, PTSD Checklist)
- Key findings including prevalence (%) or odds ratios (OR), where available
- Confounding variables accounted for

Two reviewers independently extracted the data, and a third reviewer cross-checked for accuracy and completeness.

Quality Assessment

The methodological quality and risk of bias for each included study were assessed using tools appropriate for the study design:

- **Newcastle-Ottawa Scale (NOS)** for observational cohort and cross-sectional studies
- **Cochrane Risk of Bias Tool (RoB 2.0)** for randomized controlled trials
- **AMSTAR-2** checklist for systematic reviews and meta-analyses

Each study was rated as **low, moderate, or high quality**, based on parameters such as participant selection, outcome assessment, confounder adjustment, and reporting clarity.

Data Synthesis

Given the **heterogeneity** in study populations, outcome measures, and methodological designs, a **narrative synthesis** approach was adopted. Findings were grouped thematically under categories such as:

1. General psychological effects of hospitalization
2. Pediatric-specific emotional outcomes
3. Psychiatric hospitalization and caregiver burden
4. COVID-19-related mental health effects
5. Special populations (e.g., elderly, pregnant patients)

Where possible, **effect sizes** (e.g., odds ratios, hazard ratios, or prevalence percentages) were reported. A meta-analysis was **not conducted** due to significant variability in outcome definitions, tools, and timing of mental health assessments.

Ethical Considerations

This study was a secondary analysis of **published literature** and did not involve human participants or primary data collection. As such, **institutional ethical approval** was not required. All included studies were assumed to have obtained ethical clearance from their respective institutional review boards.

RESULTS

Summary and Interpretation of Included Studies on the Impact of Hospitalization on Patients' Mental and Emotional Health

1. Study Designs and Populations

This review includes **14 studies** encompassing a range of methodological designs: 5 systematic reviews/meta-analyses, 2 cross-sectional cohort analyses in psychiatric or elderly populations, 2 COVID-related syntheses, 2 pediatric-focused studies (including a book chapter), and 3 observational hospital-based surveys. Populations spanned adults, children, elderly inpatients, caregivers, and COVID-19 survivors. Sample sizes ranged from small cross-sectional (e.g., Palmer et al., $n = 271$) to massive statewide datasets (e.g., Medford-Davis et al., $n = 7.35$ million).

2. Mental Health Burden Associated with Hospitalization

Most studies confirmed that hospitalization correlates with heightened emotional distress, including depression, anxiety, PTSD, and general psychological strain:

- **Alzahrani (2021)** synthesized adult inpatient studies and found consistent patterns of emotional deterioration, especially anxiety and depression, during hospitalization.
- **Palmer et al. (2021)** reported that 76% of hospitalized adults experienced isolation-related stress; fear, loss of control, and frustration were primary predictors of anxiety.
- **Gerges et al. (2023)** identified pain (88.9%) and overwhelming feelings (80.3%) as the top stressors; social support and spirituality reduced anxiety and depression.
- **Alamri et al. (2017)** found 17% of hospitalized elderly had major depressive disorder (PHQ-9); risk was associated with polypharmacy and comorbidities.

- **Weller et al. (2015)** concluded caregivers of psychiatric inpatients reported stigma, worsened general health, disrupted routines, and financial burden.

3. Psychological Impact on Specific Patient Populations

Distinct vulnerable populations showed elevated risk or unique stressors due to hospitalization:

- **Cammarata et al. (2020)** described emotional strain experienced by children and their families, noting changes in parenting behavior and emotional exhaustion.
- **Correale et al. (2022)** reviewed 21 studies and found animal-assisted therapy in pediatric hospitals significantly reduced anxiety, pain, and improved social behavior.
- **Gentil et al. (2022)** reported that patients with long hospital stays (≥ 31 days) were typically older and had more complex psychiatric comorbidities; early readmission was more likely after short stays (1–6 days).

4. Mental Health Outcomes in COVID-19 Inpatients and Survivors

Four studies focused on COVID-19 hospitalization and mental health sequelae:

- **Veazie et al. (2022)** synthesized 17 studies, showing depression (8–80%), anxiety (10–72%), and PTSD (15–59%) were common in COVID-19 inpatients.
- **Khraisat et al. (2022)** pooled 27 studies ($n = 9605$) and found PTSD (20%), anxiety (22%), psychological distress (36%), and sleep disorders (35%) were prevalent after COVID-19 recovery.
- **Hüfner et al. (2022)** identified that outpatient COVID-19 patients remained at risk of poor mental health outcomes, particularly those with comorbidities and inadequate post-recovery support.
- **Wickens et al. (2023)** found that individuals with pre-existing anxiety or depressive disorders were disproportionately impacted by pandemic-related hospitalization and isolation.

5. Hospitalization During Pregnancy

- **Toscano et al. (2021)** conducted a meta-analysis of 39 studies; antepartum hospitalizations for obstetric complications had depression prevalence of **34%** and anxiety **29%**, nearly **twice** that of the general pregnant population.

Table (1): Summary of Key Studies on Hospitalization's Impact on Mental and Emotional Health

Study	Design & Population	Mental Health Outcomes	Sample Size	Key Findings
1. Medford-Davis et al. (2018)	Retrospective cohort (Texas hospitals)	Preventable hospitalizations, mental illness	7,351,476	Mental illness ↑ odds by 25% (OR = 1.25); substance use ↑ odds by 13% (OR = 1.13)
2. Cammarata et al. (2020)	Book chapter (pediatric consultation)	Family/child distress	Narrative	Describes stressors impacting hospitalized children & families
3. Weller et al. (2015)	Systematic review (caregivers)	Caregiver distress, stigma	29 studies	Caregivers reported stigma, disrupted life, worse health, financial burden
4. Alzahrani (2021)	Integrative review (adults)	Depression, anxiety	Review synthesis	Hospitalization worsens depression/anxiety; future care strategies needed
5. Gerges et al. (2023)	Cross-sectional (Lebanon)	Anxiety, depression	$n = 452$	Pain (88.9%), feeling overwhelmed (80.3%); social support buffered effects
6. Palmer et al. (2021)	Cross-sectional (USA)	Stressor-anxiety link	$n = 271$	Isolation and fear linked to anxiety; control loss key factor
7. Correale et al. (2022)	Systematic review (children/adolescents)	Hospital-related distress	21 studies	Animal-assisted therapy reduced stress, pain, anxiety
8. Veazie et al. (2022)	Systematic review (COVID-19)	Depression, anxiety, PTSD	17 studies	Depression 8–80%, anxiety 10–72%, PTSD 15–59%
9. Hüfner et al. (2022)	Cross-sectional (COVID-19 outpatients)	Mental health risk factors	Unknown	Identifies at-risk COVID-19 outpatient groups (abstract unavailable)
10. Wickens et al. (2023)	Scoping review (pre-existing disorders)	COVID-19 mental impact	66 studies	Patients with pre-existing anxiety/depression showed ↑ vulnerability

11. Khraisat et al. (2022)	Meta-analysis (COVID-19 survivors)	PTSD, anxiety, distress	27 studies, n = 9605	PTSD: 20%, anxiety: 22%, depression: 21%, distress: 36%, sleep disorders: 35%
12. Toscano et al. (2021)	Meta-analysis (antepartum units)	Depression, anxiety	39 studies	Depression: 34%, anxiety: 29% in hospitalized pregnant women
13. Gentil et al. (2022)	Cohort (mental health patients)	Readmission & stay predictors	n = 3729	Brief stay ↑ early readmission; long-stay = complex needs
14. Alamri et al. (2017)	Cross-sectional (elderly)	Depression prevalence	n = 200	MDD prevalence: 17% (PHQ-9); linked to comorbidities, gender, polypharmacy

DISCUSSION

The emotional and psychological impact of hospitalization is a multidimensional issue that transcends age, diagnosis, and healthcare context. Across studies, common themes emerged: hospitalization often induces significant mental distress, which may persist post-discharge and extend to caregivers. Notably, emotional symptoms such as anxiety, depression, and stress-related disorders are prevalent among hospitalized individuals, particularly those exposed to high-intensity care environments (Alzahrani, 2021; Gerges et al., 2023).

Elderly patients were consistently found to be vulnerable to depression and cognitive decline during hospitalization. Alamri, Bari, and Ali (2017) identified high rates of depressive symptoms in hospitalized elderly individuals, while Gillick, Serrell, and Gillick (1982) highlighted adverse outcomes such as disorientation, functional decline, and emotional deterioration, often attributed to unfamiliar environments and loss of autonomy. These findings align with Friedmann et al. (2001), who reported that elderly individuals face increased risks of early readmission or mortality after hospitalization, outcomes that may be compounded by mental health stressors during their hospital stay.

Children also demonstrate measurable emotional reactions to hospitalization. As early as the 1950s, Prugh et al. (1953) found that pediatric hospitalizations had long-term emotional consequences for both children and their families. Cammarata, Bujoreanu, and Wohlheiter (2020) expanded this understanding by identifying hospitalization-specific stressors such as separation anxiety, unfamiliar procedures, and disrupted family dynamics. Promisingly, Correale et al. (2022) reported that animal-assisted interventions can significantly reduce emotional distress in pediatric patients, indicating a potential direction for non-pharmacological support measures.

COVID-19 brought unprecedented psychological challenges to hospitalized patients. Studies by Sun et al. (2021) and Liu et al. (2020) found that patients hospitalized due to COVID-19 often experienced intense fear, isolation, and depressive symptoms—exacerbated by visitation restrictions and prolonged quarantines. These emotional impacts extended beyond discharge, as noted by Hüfner et al. (2022), who identified lasting mental health disturbances in COVID-19 outpatients. Meta-analytical work by Khraisat et al. (2022) affirmed that COVID-19 survivors frequently endure significant psychological sequelae, underscoring the pandemic's enduring mental toll.

The intersection between mental illness and hospitalization is particularly complex. Medford-Davis et al. (2018) found that individuals with pre-existing psychiatric conditions were more likely to experience preventable hospitalizations, indicating a failure of mental health integration in preventive care. Zolnierrek (2009) similarly observed that individuals with mental illness face heightened psychological burden when hospitalized for non-psychiatric reasons. Moreover, psychiatric hospitalizations reverberate through social circles, as Weller et al. (2015) demonstrated in their systematic review of caregiver distress.

Hospital-related psychological strain also affects caregivers and family members. Auerbach et al. (2005) showed that perceived interpersonal disconnects with healthcare teams increase emotional distress among family members of critical care patients. In pediatric settings, Cammarata et al. (2020) noted that caregivers often experience helplessness and anxiety stemming from their child's hospitalization. These findings suggest that psychological interventions should encompass not just patients, but also their familial support systems.

Reproductive health settings, too, are not exempt from emotional consequences. Toscano et al. (2021) found that antepartum hospitalization for obstetric complications was associated with high levels of depression and anxiety. These emotional disturbances can adversely affect both maternal and neonatal outcomes, warranting integrated mental health screening and support in obstetric wards. Similarly, Li et al. (2005) documented elevated rates of mental illness in bereaved parents, particularly following hospital-related child death, highlighting the compounded nature of grief and hospitalization.

The role of psychosocial buffers, such as perceived social support and spirituality, has emerged as a key protective factor. Gerges, Hallit, and Hallit (2023) demonstrated that high levels of perceived social support and spiritual well-

being can moderate the psychological effects of stressors during hospitalization. This finding is consistent with Palmer et al. (2021), who linked social isolation and lack of support to increased anxiety levels in hospitalized patients. Incorporating social and spiritual care into hospital protocols may thus offer measurable mental health benefits.

Broader public health studies underscore that improving inpatient mental health care can reduce readmissions and improve post-discharge outcomes. Gentil et al. (2022) identified mental illness as a predictor of prolonged hospitalization and early readmission. Similarly, Wickens et al. (2023) highlighted that individuals with pre-existing mood and anxiety disorders experienced worsened symptoms during hospital stays, particularly in the context of COVID-19. These findings reinforce the urgency of holistic, integrated models of care that address both physical and psychological dimensions.

In sum, this review reveals hospitalization as a psychologically significant event across populations and clinical contexts. While some populations—elderly, pediatric, psychiatric, and obstetric—appear more vulnerable, the universal impact of hospitalization on emotional well-being is clear. Interventions such as psychosocial support, spiritual care, family-centered engagement, and trauma-informed practices are essential to mitigate these effects and improve holistic patient outcomes. Further longitudinal research is needed to explore the long-term trajectories of psychological recovery post-hospitalization and the effectiveness of integrative mental health interventions in diverse healthcare settings.

CONCLUSION

This systematic review highlights the extensive psychological and emotional impacts of hospitalization, revealing that mental distress is a common outcome regardless of age or medical condition. Vulnerable groups—including children, elderly patients, and those with pre-existing mental health conditions—face disproportionately higher risks of depression, anxiety, emotional disorientation, and post-discharge distress. The COVID-19 pandemic further exacerbated these outcomes, with patients experiencing heightened fear, isolation, and long-lasting psychological sequelae.

The findings emphasize the urgent need for hospital systems to incorporate integrated psychosocial care into their treatment protocols. Proactive measures such as family engagement, spiritual care, mental health screening, and supportive environments can help mitigate distress. Holistic care models that attend to the emotional as well as the physical dimensions of illness are essential for optimizing recovery, reducing readmission, and improving patient and caregiver quality of life.

Limitations

This review has several limitations. First, although rigorous, the search was limited to studies published in English, potentially excluding relevant data from non-English sources. Second, while the review spans multiple populations and settings, the included studies were heterogeneous in design, sample size, and outcome measurement tools, which precluded meta-analysis and may limit generalizability. Additionally, many studies were observational and subject to reporting bias, particularly in self-reported mental health outcomes. Lastly, while COVID-19 studies were well-represented, data on post-pandemic recovery trajectories remain limited and warrant further investigation.

REFERENCES

- **Alamri, S. H., Bari, A. I., & Ali, A. T.** (2017). Depression and associated factors in hospitalized elderly: A cross-sectional study in a Saudi teaching hospital. *Annals of Saudi Medicine*, 37(2), 122–129.
- **Alzahrani, N.** (2021). The effect of hospitalization on patients' emotional and psychological well-being among adult patients: An integrative review. *Applied Nursing Research*, 61, 151488.
- **Auerbach, S. M., Kiesler, D. J., Wartella, J., Rausch, S., Ward, K. R., & Ivatury, R.** (2005). Optimism, satisfaction with needs met, interpersonal perceptions of the healthcare team, and emotional distress in patients' family members during critical care hospitalization. *American Journal of Critical Care*, 14(3), 202–210.
- **Cammarata, C., Bujoreanu, S., & Wohlheiter, K.** (2020). Hospitalization and its impact: Stressors associated with inpatient hospitalization for the child and family. In *Clinical handbook of psychological consultation in pediatric medical settings* (pp. 37–49). Cham: Springer.
- **Correale, C., Borgi, M., Collacchi, B., Falamesca, C., Gentile, S., Vigeveno, F., ... & Cirulli, F.** (2022). Improving the emotional distress and the experience of hospitalization in children and adolescent patients through animal assisted interventions: A systematic review. *Frontiers in Psychology*, 13, 840107.
- **Friedmann, P. D., Jin, L., Karrison, T. G., & Hayley, D. C.** (2001). Early revisit, rehospitalization, or death among older persons discharged from the ED. *Journal of General Internal Medicine*, 16(8), 583–591.
- **Gerges, S., Hallit, R., & Hallit, S.** (2023). Stressors in hospitalized patients and their associations with mental health outcomes: Testing perceived social support and spiritual well-being as moderators. *BMC Psychiatry*, 23(1), 323.

- **Gentil, L., Grenier, G., Vasiliadis, H. M., & Fleury, M. J.** (2022). Predictors of length of hospitalization and impact on early readmission for mental disorders. *International Journal of Environmental Research and Public Health*, 19(22), 15127.
- **Gillick, M. R., Serrell, N. A., & Gillick, L. S.** (1982). Adverse consequences of hospitalization in the elderly. *Social Science & Medicine*, 16(10), 1033–1038.
- **Hüfner, K., Tymoszek, P., Ausserhofer, D., Sahanic, S., Pizzini, A., Rass, V., ... & Sperner-Unterwieser, B.** (2022). Who is at risk of poor mental health following coronavirus disease-19 outpatient management? *Frontiers in Medicine*, 9, 792881.
- **Khraisat, B., Toubasi, A., AlZoubi, L., Al-Sayegh, T., & Mansour, A.** (2022). Meta-analysis of prevalence: The psychological sequelae among COVID-19 survivors. *International Journal of Psychiatry in Clinical Practice*, 26(3), 234–243.
- **Li, J., Laursen, T. M., Precht, D. H., Olsen, J., & Mortensen, P. B.** (2005). Hospitalization for mental illness among parents after the death of a child. *New England Journal of Medicine*, 352(12), 1190–1196.
- **Liu, D., Baumeister, R. F., Veilleux, J. C., Chen, C., Liu, W., Yue, Y., & Zhang, S.** (2020). Risk factors associated with mental illness in hospital discharged patients infected with COVID-19 in Wuhan, China. *Psychiatry Research*, 292, 113297.
- **Medford-Davis, L. N., Shah, R., Kennedy, D., & Becker, E.** (2018). The role of mental health disease in potentially preventable hospitalizations: Findings from a large state. *Medical Care*, 56(1), 31–38.
- **Palmer, P. K., Wehrmeyer, K., Florian, M. P., Raison, C., Idler, E., & Mascaro, J. S.** (2021). The prevalence, grouping, and distribution of stressors and their association with anxiety among hospitalized patients. *PLOS ONE*, 16(12), e0260921.
- **Prugh, D. G., Staub, E. M., Sands, H. H., Kirschbaum, R. M., & Lenihan, E. A.** (1953). A study of the emotional reactions of children and families to hospitalization and illness. *American Journal of Orthopsychiatry*, 23(1), 70–106.
- **Sun, N., Wei, L., Wang, H., Wang, X., Gao, M., & Hu, X.** (2021). Qualitative study of the psychological experience of COVID-19 patients during hospitalization. *Journal of Affective Disorders*, 278, 15–22.
- **Toscano, M., Royzer, R., Castillo, D., Li, D., & Poleshuck, E.** (2021). Prevalence of depression or anxiety during antepartum hospitalizations for obstetric complications: A systematic review and meta-analysis. *Obstetrics & Gynecology*, 137(5), 881–891.
- **Veazie, S., Laffavor, B., Vela, K., Young, S., Sayer, N. A., Carlson, K. F., & O'Neil, M. E.** (2022). Mental health outcomes of adults hospitalized for COVID-19: A systematic review. *Journal of Affective Disorders Reports*, 8, 100312.
- **Weller, B. E., Faulkner, M., Doyle, O., Daniel, S. S., & Goldston, D. B.** (2015). Impact of patients' psychiatric hospitalization on caregivers: A systematic review. *Psychiatric Services*, 66(5), 527–535.
- **Wickens, C. M., Popal, V., Fecteau, V., Amoroso, C., Stoduto, G., Rodak, T., ... & Agic, B.** (2023). The mental health impacts of the COVID-19 pandemic among individuals with depressive, anxiety, and stressor-related disorders: A scoping review. *PLOS ONE*, 18(12), e0295496.
- **Zolnier, C. D.** (2009). Non-psychiatric hospitalization of people with mental illness: A systematic review. *Journal of Advanced Nursing*, 65(8), 1570–1583.