

Review Article

Hospitalization, Surgery and Loneliness

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Abstract

Being hospitalized or undergoing a surgical procedure may be quite an isolating and lonely experience. This review explored loneliness in the hospital and surgical setting, and highlights the emotional and psychological challenges experienced by patients during their healthcare journey. While hospitals traditionally provide medical and surgical care for a wide array of conditions, the irony lies in their potential to disrupt one's daily routines, contribute to loss of control, prolong hospital stays, and limit connections with family and loved ones leading to negative psychological well-being and intensifying feelings of loneliness. The implications of loneliness in the hospital and surgical contexts are discussed along with recommendations for improving the healthcare system's response to the negative health consequences associated with loneliness. Coping strategies are discussed, including social support mechanisms, and approaches to healthy behaviors, i.e. mindfulness, which contribute to mitigating loneliness, in the context of hospitalizations and surgery.

Introduction

Loneliness is a complex subjective experience of inadequacies in one's social relationships [1,2] that affects individuals across the lifespan. Loneliness is a profound and universal human experience. A recent meta-analysis examining the prevalence of loneliness in 113 countries found loneliness to be a common global experience [3]. Loneliness may further be triggered by life events that disrupt one's usual social support systems (e.g., the COVID-19 pandemic). Among these events, hospitalizations and surgical procedures may enhance loneliness, as Rook and Charles [4] noted, situational variables contribute to one's experience of loneliness.

Hospitals are facilities that are known to provide continuous medical and surgical treatment for acute, complex, and chronic conditions [5]. Hospitals provide a place for healing and care; however, hospitals can also paradoxically expose patients to profound feelings of isolation and loneliness [6]. Hospitalizations disrupt one's daily routines, separate individuals from their social networks and familiar environments, and may subject them to emotional and physical distress. In addition, hospital design policies have begun to prioritize single rooms rather than multi-bed rooms to personalize care and provide greater infection control, thus intensifying the patient's separation from others; so, patients who were admitted into a single room reported significantly higher loneliness in comparison to those in multi-bed rooms [6,7].

This narrative review paper aims to highlight the intricate relationship between hospitalizations, surgery, and loneliness in a comprehensive manner by providing a recent review on the topic. Understanding this connection would allow for greater insight into enhancing the quality of care, optimizing patient outcomes, and addressing the emotional and psychological well-being of individuals who may be undergoing medical treatment and recovery.

Loneliness and hospitalizations

Loneliness is linked to various negative health consequences, including impacts on mortality, morbidity, health behaviors, and utilization of healthcare services (National Academies of Sciences, Engineering, and Medicine, 2022). A meta-analysis that examined 70 studies found individuals experiencing loneliness had a 26% greater likelihood of premature mortality in comparison to individuals who were not lonely [8]. Research has found an association between loneliness and increased risk of cardiovascular disease [9-12], depression [13], anxiety [12,14], and dementia [12,15].

Hospitals play a vital role in a patient's life where one is diagnosed, treated, and provided with rehabilitative care. Shifting from a more traditional approach where individuals were hospitalized for a prolonged period of time, and given more recent technological advancements, we see a significant reduction in the patient's length of stay at a hospital [16].

More Information

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Submitted: December 11, 2023

Approved: January 02, 2024

Published: January 03, 2024

How to cite this article: Patel K, Rokach A. Hospitalization, Surgery and loneliness. Arch Psychiatr Ment Health. 2024; 8: 001-007.

DOI: 10.29328/journal.apmh.1001049

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Keywords: Loneliness; Hospitalization; Surgery; Post-surgery; Social support



Many surgeries, today, are often performed in a daily fashion [16,17]; however, those who have complex health conditions require extensive medical interventions and are admitted to acute hospitals, leading to negative health consequences such as loneliness [16]. Evidence indicates individuals who are at risk of being lonely, experience longer duration of stay when they are hospitalized [18,19].

Hospitalization and psychosocial consequences

As of 2023, there are a total of 6129 hospitals in the United States (U.S.) with approximately 34 million patients who are admitted annually [20]. Given the data regarding U.S. hospital usage, individuals will likely experience hospitalization, which is a stressful situation, at some point in their lives [21,22]. Being hospitalized may lead to psychosocial consequences, including feelings of uncertainty regarding the future, depression, and heightened anxiety [17,23]. Furthermore, being hospitalized might disrupt the patient's capacity to cope and adapt [24]. De Fazio and colleagues [17] cross-sectional study of 360 hospitalized patients found an association between prolonged hospitalization periods and poorer psychological coping. Moreover, the study revealed that recurrent hospitalizations were correlated with elevated anxiety levels and were predictive of depressive symptoms [17]. Similarly, Fridh and colleagues [16] emphasized that in order to provide holistic healthcare and demonstrate empathy toward patients' individual needs, it is crucial for healthcare personnel to be cognizant of factors that cause distress during a patient's hospitalization [16]. Signs of patients' loneliness included patient concerns regarding illness and symptoms, concerns related to being hospitalized and requiring increased care to engage in daily tasks that they were previously able to do independently without assistance, worries about socioeconomic status, uncertain future, and concerns related to their family's future [16]. Alzahrani's 2021 [25] integrative review of 18 publications, which explored patients' emotional experiences during hospitalizations, further found evidence indicating patients' financial obligations to their families and decreased ability to participate in family holidays contributed to heightened feelings of loneliness and increased distress during their hospitalization.

Hospitalization and daily routines

Hospitalizations may be an adverse event that challenges one's ability to cope [26]. Research has found that in times of turmoil and during challenging circumstances, individuals long for a familiar and routine way of living [27]. For individuals with limited resources, establishing a routine can be considered a strategy for adapting to one's environment by organizing activities in a semi-automatic way, which allows for reducing the demand for cognitive processes, and allowing for greater energy conservation [28]. Studies examining older adults residing in the community found that maintaining daily routines is associated with improved overall functional

status and well-being and improved quality of sleep [29,30]. The hospital setting may disrupt patients' daily routines and independence. Especially considering that the hospital's daily routine may not align with the patient's daily routine [31]. 330 older adults (70+) who were hospitalized reported that while older adults continued to engage in basic daily activities while hospitalized, the following disruptions to daily routines were noted: there was a decreased frequency of basic routine activities performed, the duration of daily routine activities decreased while in the hospital, and there were changes in the timing of when daily routine activities occurred in the hospital as compared to when it was performed at home [31].

Hospitalization and mental health conditions

For individuals who have pre-existing mental health conditions, hospitalizations may pose additional challenges. From a sample of 100 adults with mental disorders who were receiving psychiatric rehabilitative care in the USA, 71% of the sample reported experiencing loneliness [32]. An Australian study reported that approximately 80% of individuals with psychosis felt lonely in comparison to the general population control group with 35% reporting loneliness [33]. A retrospective study examining adults receiving mental health care in the UK found that individuals with mental health conditions who were experiencing loneliness had a higher frequency of hospitalizations and an increase in their duration of hospital stay [34].

Hospitalization and isolation

In the general population, loneliness has been associated with negative health consequences such as poor health [35] and an increase in the utilization of healthcare services [35,36]. On the contrary, hospitalizations may also lead to the hospitalized individual experiencing social isolation as these patients are often separated from their usual support networks; thus, this isolating experience may lead to feelings of loneliness where none existed before or intensify pre-existing loneliness [37]. This is evidenced by an Ethiopian study of 397 patients [37] where more than half, approximately 55% of patients, reported experiencing loneliness during their hospital stay. Given the negative health consequences associated with loneliness, early identification and interventions in the hospital setting is crucial to reduce the adverse events associated with loneliness.

Of particular interest is what occurred during the COVID-19 pandemic which required implementation of "social distancing" to reduce the transmission of the virus. Within the community, quarantining and social distancing have led to reports of higher levels of loneliness and adverse physical and mental health consequences [38]. In the hospital setting and given how quickly the COVID-19 virus spread, many hospitals refused to allow visitors to see their loved ones, even if they were dying alone in their hospital room [39].



Surgery and loneliness

Surgery, whether it is minor or major, represents a transformative and potentially isolating experience for individuals. Surgery poses a significant stressor to the human body, necessitating efficient measures to alleviate pain and stress for a prompt and rapid recovery [40,41]. Surgery involves not only physical stress on the body but also brings about psychological distress stemming from fear of mortality and a perceived lack of control [42]. Being hospitalized and undergoing surgical procedures may promote feelings of anxiety. Feelings of anxiety may stem from being separated from loved ones and being subjected to medical procedures that are unpleasant and unfamiliar [43]. Despite technological advancements in medical care and dedication from doctors and staff, undergoing a surgical procedure contributes to significant feelings of loneliness and psychological distress [44,45]. In the context of surgery, physical isolation is inherent during one's hospitalization. A large-scale cohort study which included 96,454 patients who were isolating prior to undergoing elective surgery to avoid complications from COVID-19, found social isolation to be associated with increased rates of developing postoperative lung complications and were 20% more likely to develop postoperative complications [46].

A qualitative study in the UK provided an in-depth exploration of the psychological, social, and emotional impact of living with cancer of the vulva on women who were 6 months and 5 years post-surgery [47]. Their results indicated that women with vulva cancer experienced isolation due to greater geographical distances between the specialist hospital where they received their inpatient treatment and their home, changes in their lifestyle and routine including restrictions on activities that they may have previously enjoyed such as sexual intimacy, and reduced psychological well-being due to the negative impact associated with visible scarring and changes to their body [47]. Coping with these changes and shifts in self-esteem may create a sense of loneliness especially as they attempt to navigate their changed physical appearance. In addition, the women's sense of loneliness also included a lack of knowledge and comprehension about their condition not only in their social circles but also in the healthcare system where they sought out treatment [47]. This lack of shared experiences with others who can understand the challenges of post-surgical recovery contributes to a sense of loneliness and isolation, and negatively impact the individual psychologically and emotionally.

Post-surgical recovery & loneliness

Following surgery, patients may experience postoperative pain [48,49], hemorrhage related to the surgery [48], and possible infection of the surgical site [50] which contributes negatively in regards to the patient's psychological well-being. Using a qualitative study design, Akortiakuma and colleagues [51] explored the experience of postoperative recovery in 15

individuals (ages 21-63) who underwent abdominal surgery and were one to three months in their post-surgery recovery period. The study participants reported feeling lonely and disheartened due to being unable to visit family and friends as a result of postoperative pain [51]. The periods following discharge from the hospital were often characterized by experiencing loneliness, and at times, a sense of sadness. This stemmed from participants feeling as though their loved ones and friends' presence was limited, despite the individual's insufficient ability and strength to care for themselves [51]. The physical limitations associated with surgery may lead to increased social isolation, limiting interactions with family and friends and contributing to a sense of loneliness.

An exploratory study that examined the experiences of patients' hand and wrist surgery journey found loneliness to be present during all stages of the perioperative experience which is defined as the operation day and encompasses the preoperative, intraoperative, and postoperative phases [52]. Similarly, Gilmartin and Wright [53] identified staff abandonment led to a negative day surgery experience. This highlights the significance of staff interaction to foster a positive experience as a patient [52]. This study highlights the importance of clear, effective communication throughout the surgery process, as a means of reducing pre-, intra-, and postoperative loneliness.

Although being hospitalized and undergoing surgery is a stressful experience that can contribute to loneliness [45], in particular situations, not receiving surgical care may also lead to significant experiences of loneliness. For example, Fanakidou, et al. [54] in exploring the relationship between loneliness and health-related quality of life (HRQoL) found in women with breast cancer found breast reconstruction was positively associated with HRQoL. On the contrary, women without breast reconstruction reported higher levels of loneliness [54], highlighting the importance of how specific conditions and diagnoses, such as breast cancer, are related to emotional, social, and physical well-being [55,56].

In summary, the surgery experience, whether it is major or minor, extends beyond the physical aspects of the surgical procedure. The surgery experience permeates into the social and emotional domains of an individual's life and as suggested by the research reviewed, potentially leads to heightened feelings of loneliness. Recognizing and addressing the emotional challenges related to hospitalizations and surgery is crucial in order to provide comprehensive and patient-centered care.

Coping with loneliness & social support

As we have reviewed, loneliness, which has been found to be associated with hospital and surgical experience, requires exploration of coping strategies and the transformative impact of social support. Thus, this section explores coping strategies to mitigate loneliness during hospitalization and

surgery and how social support influences the patient's well-being; thereby illustrating the need for a more compassionate and supportive healthcare environment.

Coping strategies for loneliness

In healthcare settings, patients who are facing loneliness may benefit from adopting various coping strategies. Clarke, et al.'s [57] qualitative study including 18 older adults aged 60 and beyond, in an acute hospital in the UK, found that there was a lack of engagement in purposeful activities while hospitalized which led to patients' feeling bored and alienated from their normal routines. Although participants were willing to engage in activities, patients reported barriers such as limited hospital resources, hospital staff routines that disrupted the patients' own routine, and personal restrictions such as reduced mobility, pain, and illness which impacted the patients' ability to stay engaged in activities [57]. Encouraging patients to participate in activities that provide a sense of purpose may serve as an effective strategy to combat the experience of loneliness in healthcare institutions. For example, common patient activities in the hospital identified included listening to music, reading, participating in book groups, relaxing, gardening [57], crafts, and expressing gratitude [58,59]. In addition, promoting mindfulness and relaxation techniques, such as meditation, awareness, and deep breathing techniques, may help mitigate emotional consequences such as loneliness [60-62]. Further, engagement in mindfulness strategies is associated with pre-and post-surgical pain reduction [63]. Findings from the National Poll on Health Aging suggested that older adults who consistently practiced healthy behaviors, including maintaining a nutritious diet, regular exercise, and adequate sleep, were less prone to experiencing loneliness [64].

Healthcare providers play a crucial role in supporting patients' ability to cope with loneliness. Acknowledging the healthcare system's responsibility to tackle loneliness is not a recent revelation [65]. Jones, et al. [66] posited general practitioners play a unique role in reducing the consequences of loneliness as general practitioners are increasingly likely to encounter individuals who are lonely and are well-positioned to refer them to appropriate resources such as social services and volunteer organizations and to facilitate connections with support groups. Further, individualized coping plans, using evidence-based practices, tailored to patients' preferences contribute to addressing the factors (e.g., mobility limitations) leading to loneliness [65].

The role of the healthcare system & social support

Evidence indicates that social support has a protective effect against loneliness [67]. A meta-analysis which included 148 studies suggested maintaining social connections increased the likelihood of survival by 50% [68]. Healthcare professionals and the healthcare system are key "partner[s] in efforts to identify, prevent, and mitigate the adverse health impacts of social isolation and loneliness..." [65].

1. A consensus report by the National Academies of Science, Engineering, and Medicine [65] emphasized the healthcare system's responsibility to address the health impacts of loneliness. and identified 5 goals and recommendations based on existing literature: "Develop a more robust evidence base...[for] effective assessment, prevention, and intervention strategies" (p. 5) for loneliness
2. "Translate current research into health care practices" (p. 5)
3. "Improve awareness of the health and medical impacts of social isolation and loneliness across the healthcare workforce and members of the public" (p. 5)
4. "Strengthen ongoing education and training" (p. 5)
5. "Strengthen ties between the health care system and community-based networks and resources" (p. 5).

Engaging in social activities, such as joining social groups, volunteering, and offering support to others, has been demonstrated to effectively alleviate loneliness. Recognizing the importance of fostering connections, healthcare providers should encourage meaningful interactions between loved ones and fortify their social connections, to deter loneliness. Leveraging technology to facilitate virtual visits and communications with family and friends may also provide greater emotional support; however, the evidence of the effectiveness of digital interventions remains inconclusive [68].

Incorporating social support into healthcare practices involves a collaborative effort. Hospitals, including surgical units, should develop policies that prioritize effective communication between patients and their support networks. Healthcare systems can play a pivotal role in alleviating the burdens associated with loneliness and promoting holistic, evidence-based patient-centered care to promote improved well-being [65,69].

Limitations and challenges

While implementations have been suggested to address loneliness in the hospital and surgical setting, we acknowledge potential limitations and challenges related to loneliness in the healthcare institution. There are several factors that may impact the integration of strategies to mitigate loneliness in hospital and surgical settings.

One challenge to take into consideration is the heterogeneity of patients' loneliness experiences and preferences when considering interventions to implement. Individuals may respond differently to loneliness interventions and so, a one-size-fits-all approach may not be effective [70]. Tailoring strategies to meet the diverse and unique needs of patients is critical; however, this may be challenging within the



constraints of healthcare settings. For example, hospitals face the challenge of providing improved healthcare outcomes to a rapidly growing population, with emphasis on delivering higher quality care, in reduced time and while maintaining or reducing costs [71].

Secondly, resource constraints of healthcare institutions may limit the feasibility of implementing holistic and comprehensive programs to mitigate loneliness. In the hospital setting, constraints such as staff shortages, decreased access to resources, and limited financial funding exist [72]. In order for loneliness interventions to be effective in the healthcare setting, adequate staffing, training, and resources are required. Overcoming the financial and logistical barriers requires a collaborative team effort from practitioners, policymakers, and healthcare administrators. Additionally, the fast-paced nature of healthcare settings and the delivery of services may pose a barrier to maintaining engagement with patients. Time constraints in the healthcare setting often hinder the establishment of meaningful connections with patients which contributes to patient dissatisfaction and healthcare provider burnout [73], impacting the efforts to successfully mitigate loneliness in hospital settings.

Experiences of loneliness are subjective which may further pose as a measurement challenge. Assessing loneliness is complex and current measures may not fully capture the nuances of this experience [65]. Lastly, the loneliness experience is further influenced by one's sociocultural environment, economic disparities, and culture [74] and these factors may influence the strategies to address loneliness.

Despite these challenges, addressing loneliness is a significant aspect of delivering holistic patient-centered care. By acknowledging these limitations and actively striving to address the constraints, healthcare providers and policymakers are well-positioned to develop and implement effective strategies to alleviate loneliness and enhance the well-being of patients in the hospital and surgical settings.

Conclusion

In conclusion, understanding the intricate relationship between hospitalizations, surgery, and loneliness allows for a deeper insight into enhancing the quality of care and well-being of patients who are undergoing medical interventions. The emotional and psychological toll of hospitalizations and surgery, along with disruptions to daily routines, and separation from social support networks, commonly lead to psychological consequences such as anxiety, inability to cope with physical bodily changes post-surgery, and changes in one's ability to independently perform daily activities or which previously brought pleasure. This highlights the need for providing holistic patient care. As evidenced by the literature reviewed in this article, addressing loneliness is not only crucial for improving psychological well-being but also for optimizing overall physical and emotional health

outcomes. Healthcare providers should consider integrating strategies to mitigate loneliness in the healthcare setting by fostering social connections, ensuring adequate support is provided by staff, and promoting health behaviors/routines while hospitalized. Recognizing the loneliness experienced in the healthcare setting is a necessary step toward ensuring compassionate and comprehensive medical care.

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