

Economic Impact of Social Support on Reducing Hospital Readmissions in Older Hypertensive Adults

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Abstract

The economic effect of social support in lowering hospital readmissions among hypertensive older adults is the focus of this literature review. The clinical and financial problem of readmission to hospitals in this group is acute, and the medical and social factors explain the problem. The social support that is provided in terms of emotional, instrumental, informational, and appraisal support has been found to enhance medication adherence, self-care, and psychological well-being, reducing readmission rates and healthcare expenses. Although there is good evidence to support this, the ways of measurement of social support, socioeconomic attributes and discrepancy in interventions restrict the existing knowledge. In this review, the authors point to the following important processes that connect the social support to a decreased readmission: better after-discharge support and closer access to community services. It emphasizes the need to use culturally sensitive interventions which are targeted and incorporating social support in care transitions and chronic disease management programs. Social support models of policy initiatives and care coordination have been shown to be cost saving and to enhance the wellbeing of patients. Further studies on the subject matter can greatly contribute to the improvement of healthcare delivery, preventing readmission, as well as enhancing life quality of hypertensive older adults.

Keywords: Hypertensive Adults; Social Support; Hospital Readmissions; Economic Impact; Older Adults

1. Introduction

Older adults' hospital readmissions are one of the critical issues facing the U.S. healthcare system because they are linked to poor patient outcomes, rising mortality, and rising healthcare expenditures [1]. The elderly with hypertension are, in particular, vulnerable due to physiological changes with age, the presence of multiple comorbidities, and the requirements of dealing with long-term medications and care transitions [2; 3]. The prevention of unwarranted readmissions is becoming one of the quality measures of healthcare organizations and the focus of policy interventions.

Social support is defined as emotional, informational, tangible, and appraisal support that people get in the form of relatives, friends, medical professionals, and neighborhood agencies [4; 5]. It includes direct assistance with day-to-day living, provision of guidance or support, and access to resources that may promote recovery and continued self-management. Hospital readmissions refer to the readmissions of patients in a given time period, mostly 30 days, of an earlier stay in a hospital due to causes or related conditions [6]. The population of older hypertensive adults consists of 65 years and older diagnosed with high blood pressure, who are at higher risk of readmission after acute illnesses or hospitalization because of their impaired cardiovascular health and comorbidities [1; 7].

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The aim of the literature review is to assess the existing literature on the economic effectiveness of social support interventions to minimize hospitalization rates among older-age hypertension patients. The review will also summarize the conclusions of U.S.-based peer-reviewed journals and authoritative literature, concentrating on the studies that will have strong methodology, a clear definition of social support, and applicable outcome measures (i.e., readmission rates and healthcare costs).

The areas covered in this review include empirical research, systematic reviews, and landmark reports published within a decade in English. The inclusion criteria will be that the source: studies older adults (65 + years) with high blood pressure; particularly measures the effects of social support; reports on hospital re-hospitalization and/or healthcare expenses; and is published in U.S. peer-reviewed journals or organizations of superior authority. Exclusion criteria will include research that covered non-U.S. populations, non-peer-reviewed reports, and research that did not directly analyze social support or economic outcomes.

2. Findings from Literature

2.1. Hospital Readmissions in Older Adults with Hypertension

Hospital readmission is a critical issue among elderly people with hypertension that has serious clinical and financial implications. Hospital readmission rates regarding hypertensive crises and other comorbidities are at a high rate; according to an analysis of the 2013-2014 Nationwide Readmissions Database, the overall unplanned 30-day readmission rate of hypertensive emergency patients is 17.8% [8]. The prevalent causes of readmission were heart failure (14.3%), hypertension with complications (10.5%), sepsis (5.9%), acute kidney injury (5%), and stroke (4.9%), which demonstrates that heart failure and non-cardiovascular diseases are both risk factors in this patient population. The comorbidities associated with clinical factors causing older hypertensive adults to readmissions are heart failure, chronic kidney disease, diabetes mellitus, and polypharmacy [9; 10]. The risks of readmission also increase with the functional decline, longer initial hospitalization, and poor medication compliance in the post-discharge period [10]. The non-clinical variables are also crucial; socioeconomic status, substance use disorders, the type of insurance, and discharge disposition also have a crucial impact on readmission rates. It is interesting to note that other studies have found that younger adults below 65 have greater odds of readmission compared to older adults [9].

Statistically, hospital re-hospitalization of hypertensive older people has a huge burden on the healthcare system. Hypertensive emergency among Medicare beneficiaries is associated with readmission rates similar to heart failure and acute myocardial infarction, two conditions that have been previously known to result in high readmission expenses [11]. The former is a significant financial burden because readmissions lead to more inpatient spending and resource consumption, which further strains healthcare budgets and underlines the necessity of effective readmission reduction measures that address this risk population [12].

2.2. Role of Social Support in Health Outcomes

Social support refers to the various forms of assistance individuals receive from their social networks, which play a crucial role in shaping health behaviors and improving recovery outcomes. The primary categories of social support are as follows

Table 1 Primary categories of social support

Category	Definition	Examples
Emotional Support	Expressions of empathy, love, trust, and care that offer reassurance and comfort [4]	Listening actively, providing encouragement, and showing understanding.
Instrumental (Tangible) Support	Practical aid and services that help meet daily needs [10]	Financial assistance, transportation, help with meals, or daily activities.
Informational Support	Sharing advice, suggestions, and knowledge to assist in problem-solving and decision-making [4]	Providing health education, medication instructions, and guidance on disease management.
Appraisal Support	Offering feedback and affirmation to help individuals evaluate themselves and build confidence in managing health [9]	Constructive feedback, validating feelings, and decisions.

Social support has a positive impact on health behaviors as it enhances medication adherence, facilitates more healthy lifestyle choices, decreases stress, and boosts resilience. This assistance is especially crucial to those elderly individuals who have to deal with chronic conditions such as hypertension because it may enhance recovery rates and reduce the exposure to negative health outcomes [11; 13].

The findings of studies have always demonstrated a close connection between increased social perceived support and decreased readmission rates. An example is a report by Bailey et al. [9], who found that older adults with high perceived social support were less likely to be readmitted within 30 days or die by 53 percent compared to older adults with low social support. Besides, social support offered by nurses during hospitalization and discharge has been shown to reduce readmissions by enhancing the comprehension of care plans and the implementation of follow-up treatments [14]. These results demonstrate the essential part of social support in decreasing hospital readmission in older adults who have hypertension.

2.3. Economic Impact of Social Support on Hospital Readmissions

Hospital readmission is a significant financial problem for health systems. Readmission has a tendency to lead to more expenditures on the use of hospital resources, increased length of stay, and total spending on healthcare [14]. This financial burden is associated with cardiovascular-related readmissions, including older hypertensive adults, as they are complex and severe.

The available evidence proves the idea that social support interventions can immensely decrease the economic consequences of hospital readmissions [5]. In one randomized controlled trial of patients with cardiovascular diagnoses, patients who received post-discharge behavioral and emotional support incurred significantly lower total readmission costs than did a standard care control group (1.1 million vs. 2.0 million). It also decreased the mean cost per readmission, which is \$91,278 in the control group, and 44,052 in the intervention group [14]. These savings are credited to previous involvement of patients in care and prevention of severe readmission events, and, as a result, lower and shorter hospitalizations.

Social support healthcare policies and programs have played a critical role in the minimization of readmissions. As an example, the Care Transitions Intervention (CTI) program involves matching patients with nurse transition coaches who educate, support timely follow-ups, and self-care. This method has also shown a great decrease in 30- and 90-day readmission rates and cost reductions that were estimated to be \$500 per case [6]. Moreover, the Hospital Readmissions Reduction Program (HRRP) provided by Medicare motivates hospitals to introduce social support strategies, such as discharge planning and connection with community resources, to decrease readmissions and the total expenses [16].

Therefore, the implementation of social support interventions during care transitions not only enhances clinical outcomes of older hypertensive adults but also is a cost-effective strategy by reducing readmission rates and severity, which eventually will save healthcare expenses [17].

2.4. Mechanisms Linking Social Support to Reduced Readmissions

Social support reduces hospital readmissions through several interconnected mechanisms that operate at the patient, community, and healthcare system levels.

At the patient level, social support improves medication adherence by providing reminders, handling medications, and encouraging consistent use, which is critical for managing chronic conditions such as hypertension [14; 18]. Patients with robust social networks tend to demonstrate better self-care behaviors, including adhering to diet and exercise recommendations, recognizing symptoms early, and seeking timely medical care, thereby reducing complications that lead to readmission [19].

Emotional support reduces psychological distress and stress-related physiological responses, which can otherwise exacerbate health problems. This buffering effect helps patients maintain better health and cope with the challenges of recovery after discharge [4; 20].

At the community level, tangible assistance such as help with transportation, meal preparation, and personal care enables patients to manage their health needs effectively outside the hospital [20]. Community resources and social worker interventions that address non-medical barriers like housing, food insecurity, and access to prescriptions also support successful recovery and reduce avoidable readmissions [20; 21].

Within healthcare systems, coordinated social support delivered through nurse-led transitional care programs and social work services provides crucial post-discharge follow-up, education, and navigation assistance. These interventions help patients understand discharge instructions, engage in self-management, and access outpatient services, reducing care gaps that often lead to rehospitalization [3; 6].

In summary, social support acts through behavioral pathways (e.g., improved adherence and self-care), psychological pathways (e.g., stress reduction), and logistical pathways (e.g., assistance with social needs), collectively lowering hospital readmission rates among older adults with hypertension [22].

3. Challenges and Limitations in the Current Literature

The literature has one major challenge in that social support measures vary. A very broad variety of instruments is used in different research, like the Job Content Questionnaire, Copenhagen Psychosocial Questionnaire, and others, which measure various aspects, such as co-worker, supervisor, family, or support in general. Such a variety of tools causes unequal conceptualizations and measures, making it difficult to compare and meta-analyze studies [23; 14; 21].

The other weakness is in terms of socioeconomic confounders that may bias the results on social support. The impact of factors such as income, education, housing stability, and access to healthcare services has a complex interaction with social support and is independent of affecting health outcomes, such as hospital readmission. Most studies do not completely control these confounders or decouple their influence and thus cannot draw inferences into the particular contribution of social support [20].

Also, study populations and interventions are heterogeneous to a great extent. The elderly patients with hypertension are heterogeneous in terms of their age, ethnicity, comorbidity burden, and social settings, and hence, differences are observed in the effect of social support on readmissions. The designs of the interventions also vary between peer support and programs based on nurses to community-based services, and the intensity, duration, and delivery methods vary. This heterogeneity restricts the possibility of generalizability and the determination of the best practices [23].

To overcome these limits, standardized methods of measurement, stringent correction of socioeconomic variables, and stratified analyses are necessary to explain what populations and interventions give the greatest good.

3.1. Implications for Practice and Future Research

Knowledge of the economic role of social support in the hospital readmission reduction provides a good insight into how healthcare can be optimally provided. Through the understanding that a good social support intervention can result in significant savings of costs together with better patient outcomes, health systems can be more willing to invest in programs that consider social determinants of health in the clinical setting. This creates a more holistic approach that ensures the medical needs are not only considered but also the social and emotional aspects of successful recovery and readmission prevention.

Additionally, future studies ought to be aimed at creating and testing specific social support programs that are specifically targeted at older adults with hypertension, who are also a high-risk group regarding readmissions. Themes that need to be explored are culturally sensitive support programs, how the digital tools of health can be used to improve social connection and adherence, and the impact of integrated community and healthcare system interventions over time. Also, there is a need to find the most effective strategies with strong randomized controlled trials and cost-efficiency analyses.

In translation, the results highlight the possibility of implementing policy and care coordination changes that integrate social support into the normal routine discharge planning and management of chronic diseases. Achieving practical integration of social support is effective through such programs as the Care Transitions Intervention and the Hospital Readmissions Reduction Program of Medicare. Such methods can be scaled with reimbursement incentives, employee training, and cross-sector collaborations to improve continuity of care, prevent readmissions, and solve health disparities in hypertensive older adults.

4. Conclusion

Older adults with hypertension remain among the most challenging clinical and economic issues of the U.S. healthcare system because of their high hospital readmission rates. In this literature review, it is undeniable that social support is a highly effective and multifaceted intervention with numerous important roles, which not only improve health

behaviors, medication adherence, and psychological well-being but also significantly reduce readmission rates and healthcare expenses. Although the advantages of social support are supported by evidence, measurement variability, socioeconomic confounding factors, and population and intervention differences are some of the issues that necessitate more rigorous, standardized studies. Future interventions should include the design of culturally specific social support and targeted interventions, incorporating these strategies into care transitions and chronic disease management. Harnessing the economic and clinical advantages of social support by modifying policies and engaging in coordinated care models has the potential to enhance the outcomes as well as reduce preventable hospital readmission rates in this vulnerable group. Treating social support as an essential component of healthcare provision can increase quality and sustainability in the management of hypertension among older adults.

Compliance with ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

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