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Research Progress on Continuity of Care for Disabled Elderly Individuals from the Perspective of Integrated Medical and Elder Care: A Review

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Abstract

This study systematically reviews research concerning continuity of care for disabled elderly individuals within the framework of integrated medical and elder care. The objective is to clarify conceptual connotations, practice models, influencing factors, and outcome evaluations, thereby providing a reference for service optimization. A comprehensive literature search was conducted in databases such as CNKI and Web of Science, with 25 core publications selected for integrated analysis. Current research defines the core connotations of continuity of care through multiple dimensions, resulting in various practical models including institution-to-institution transitions, institution-community-family linkages, and integrated care. The implementation of continuity of care is influenced by multi-level factors such as policy frameworks, organizational management, service providers, and patient families. Evidence suggests that these models yield positive effects in improving clinical outcomes and enhancing the quality of care. However, existing studies exhibit limitations in intervention design, standardized evaluation criteria, and focus on rural areas. Future research should prioritize the construction of localized theoretical frameworks, high-quality intervention studies, and the empowerment of information technology to facilitate the perfection of continuity of care systems for the disabled elderly.

Keywords

integrated medical and elder care, disabled elderly, continuity of care, care models, research progress

1. Introduction

With the accelerating pace of population aging in China, the scale of the disabled elderly population continues to expand. Estimates indicate that the number of disabled and semi-disabled older adults in China has exceeded 40 million. This demographic group simultaneously faces multifaceted needs for medical treatment, rehabilitative nursing, and daily life care. However, traditional medical and elder care service systems remain independent of each other with poor coordination. This results in a dilemma where, after acute phase treatment, elderly patients often face a situation where “hospitals are reluctant to keep them, nursing homes are unable to accept them, and communities or families are incapable of providing care” [1]. To address this challenge, the state has explicitly proposed the development strategy of “Integrated Medical and Elder Care,” aiming to promote the deep integration of healthcare and elderly service resources.

The ultimate goal of this integration is not merely the simple addition of medical and elderly services but rather the realization of organic coordination and seamless coverage throughout the service process; its core lies in the "continuity" of services [2]. Nevertheless, in practical application, when disabled elderly individuals are referred from hospitals to communities or nursing institutions, they frequently encounter "service fragmentation" issues such as obstructed referral processes, barriers to health information sharing, interruptions in care plans, and weak collaboration among multiple stakeholders [3, 4]. These issues severely compromise the quality of care, increase the risk of readmission, and exacerbate the caregiving burden on families and society. Therefore, constructing an effective continuity of care system within the perspective of integrated medical and elder care has become a critical issue that urgently needs to be addressed in the field of geriatric health services.

"Continuity of care" originally stemmed from the follow-up management of discharged patients and has now evolved into an integrated care concept that spans institutions, levels, and time, encompassing information, management, relationships, and temporal dimensions. This review aims to systematically summarize the research progress regarding continuity of care for the disabled elderly under the integrated medical and elder care model. By clarifying its core connotations, practice models, influencing factors, and outcome evaluations, this study identifies deficiencies in current research and provides prospects for future directions. The goal is to provide a theoretical basis and practical reference for establishing a continuity of care service system for disabled elderly individuals that is suited to China's national conditions.

2. Core Connotations and Theoretical Frameworks of Continuity of Care under the Integrated Medical and Elder Care Model

2.1 Conceptual Evolution of Continuity of Care

The concept of continuity of care has undergone an evolution from a single-dimensional focus to multi-dimensional integration. Traditionally, it referred primarily to the follow-up or referral services received by patients after discharge, emphasizing temporal succession. With the rise of the integrated care philosophy, the academic community has generally reached a consensus that continuity of care encompasses four core dimensions: informational continuity (the seamless sharing of care information among different institutions and personnel), managerial continuity (the coordination, consistency, and dynamic adjustment of care plans), relational continuity (the establishment of a sustained and trusting relationship between service providers and patients or their families), and temporal continuity (covering the entire process from the acute phase of illness through the recovery and stable phases to end-of-life care).

Under the integrated medical and elder care model, the specificity of continuity of care lies in the necessity to dismantle barriers between the two independent systems of healthcare and aged care. This requires achieving the effective integration and dynamic linkage of medical resources (such as diagnosis, treatment, and rehabilitation) and elderly care resources (such as daily life assistance and spiritual comfort) across multiple service entities, including general hospitals, community centers, nursing institutions, and private households.

2.2 Main Theoretical Frameworks and Their Applications

To systematically explain the implementation mechanisms and influencing factors of continuity of care, scholars have introduced various theoretical frameworks. Among these, the Andersen Behavioral Model of Health Services Use (BMHSU) is widely employed to analyze the demand for and utilization of care services among the disabled elderly [5]. This model categorizes influencing factors into predisposing factors (e.g., age, gender), enabling factors (e.g., economic level, social support), and need factors (e.g., degree of disability, chronic disease status). It provides a systematic analytical tool for assessing continuity of care needs and designing differentiated intervention programs [5].

Social Capital Theory offers a novel perspective for constructing community support systems within continuity of care. Based on the "resource-relationship-trust" framework, Huang et al. revealed the possibility of utilizing acquaintance-based social networks in rural areas to form mutual-aid care models [6]. This suggests that in resource-scarce rural regions, activating endogenous social capital within the community is a vital pathway for establishing a continuity of care system [6].

Furthermore, Life-cycle Management Theory and the International Classification of Functioning, Disability and Health (ICF) framework have been applied to the standardized construction of continuity of care. Relevant expert consensuses propose that a full-cycle rehabilitation management path—encompassing "prevention, acute phase, recovery phase, and maintenance phase"—should be constructed based on nine functional dimensions, including motor, cognitive, and psychological functions [7]. This framework serves as an authoritative reference for the standardization of continuity of care content and multidisciplinary collaboration.

3. Practice Models of Continuity of Care for the Disabled Elderly under the Integrated Medical and Elder Care Model

Based on the different core vehicles for service coordination, existing practice models can be categorized into the following three types.

3.1 Institution-to-Institution Transition Model

This model primarily addresses the service disconnection between acute-phase medical institutions and stable-phase elderly care institutions. Specific manifestations include the establishment of contracted partnerships between general hospitals and elderly care facilities to open "green channels" for bidirectional referrals, or the integration of elderly care beds within nursing homes and rehabilitation hospitals to achieve the physical consolidation of medical and care functions. Using evidence-based methods, Wang Jun constructed a "Restraint Assessment—Restraint Alternatives—Restraint Monitoring—Effect Evaluation" minimal physical restraint program within integrated medical and elder care institutions, effectively reducing the utilization rate of physical restraints [8]. Luo Guohui and colleagues proposed a "Precision Integrated Medical and Elder Care Model" for public hospitals, which emphasizes Comprehensive Geriatric Assessment as the foundation to achieve precise evaluation, matching, intervention, and referral, providing an operational framework for efficient institutional coordination [9]. However, current collaboration between most institutions remains largely at the contractual level, lacking unified information-sharing platforms and standardized referral protocols, which results in suboptimal transition efficiency.

3.2 Institution-Community-Family Linkage Model

This model emphasizes the community as a platform to dismantle care barriers in the "last mile" from hospital to home, representing a mainstream practical direction for continuity of care. Its core forms include "hospital-community-family" ternary linkage nursing, home hospital beds, and home-based nursing services. Multiple studies indicate that transitional care based on the integration of medical and elder care can significantly improve the activities of daily living (ADL) of the disabled elderly, reduce readmission rates, and enhance care satisfaction [10, 11]. Wang Chen and colleagues developed and validated an evidence-based exercise management program for mildly disabled elderly in nursing homes, providing a specific intervention tool for function-maintenance-oriented community rehabilitation [12]. Yang Yue et al., based on the Van Houtven care framework, designed a caregiver technical training program encompassing physical, psychological, and support-seeking dimensions; randomized controlled trials verified that this program significantly alleviates caregiver burden and improves caregiving competence [13]. Nevertheless, in practical operation, this model still faces obstacles such as insufficient community health service capacity, superficial content in family doctor contract services, and inadequate incentive mechanisms for home-based nursing.

3.3 Integrated Care Model

The integrated care model aims to fundamentally resolve service fragmentation through organizational restructuring and payment method reforms. Internationally, the PACE model (Program of All-Inclusive Care for the Elderly) in the United States and the Community-based Integrated Care System in Japan are typical representatives. Domestically, the pilot implementation of the Long-term Care Insurance (LTCI) system is regarded as a vital institutional tool for promoting integrated care. An analysis of 15 pilot cities by Li Changyuan and others revealed that issues such as inconsistent financing standards, simplistic benefit packages, and non-unified disability assessment standards directly constrain the cross-regional and cross-institutional implementation of continuity of care [14]. In rural areas, Huang Xiunü et al., based on social

capital theory, explored an integrated medical and elder care mutual-aid system centered on "resources-relationships-trust," providing a low-cost and sustainable integrated care approach for resource-scarce regions [6]. Furthermore, "smart" elderly care and the construction of information platforms are considered key technical means to support integrated care; however, serious barriers remain regarding the interconnectivity of electronic health records (EHR) across different medical, elderly care, rehabilitation, and nursing institutions [4].

4. Analysis of Factors Influencing Continuity of Care

The effective implementation of continuity of care is shaped by a convergence of factors across multiple levels.

4.1 Policy and Institutional Level

The institutional design of Long-term Care Insurance (LTCI) serves as the primary influencing factor. Currently, LTCI relies excessively on transfers from medical insurance funds, with ambiguous individual contribution responsibilities and a low level of unified national planning. This leads to significant regional disparities in the nursing services available to disabled elderly individuals [14]. Furthermore, the absence of standardized national disability assessment criteria and benefit catalogs makes it difficult to maintain care plans and payment eligibility when elderly patients move across regions or institutions [14]. Additionally, the insufficient coverage of post-discharge follow-ups and community rehabilitation by medical insurance policies diminishes the motivation for institutions to provide continuous services.

4.2 Organizational and Management Level

The lack of effective collaboration mechanisms between medical and elderly care institutions remains a core obstacle. A qualitative study by Guo et al. found that there is a significant lack of informational, emotional, and practical interaction between family caregivers and community nurses, rooted in the absence of communication mechanisms and unclear professional boundaries [3]. Research by Zhang et al. further noted that an effective multi-stakeholder cooperation mechanism should include a unified information-sharing platform, clear division of responsibilities, established transition protocols, and sustained coordination mechanisms [4]. In practice, however, these elements are generally absent.

4.3 Service Provider Level

The collaborative capacity and professional configuration of multidisciplinary teams directly impact the quality of continuity of care. The role of nursing staff as care coordinators has not been fully realized, and there is a pervasive lack of systematic training in integrated care. Meanwhile, the competence and burden of caregivers—predominantly family members—are critical variables. Yang Yue and colleagues confirmed that providing systematic training to caregivers can effectively enhance their technical proficiency and alleviate their caregiving burden [13].

4.4 Disabled Elderly and Family Level

Individual factors such as the severity of disability, variety of chronic diseases, economic status, and living arrangements dictate the intensity and type of care requirements [5, 15]. Wang Lina et al. discovered that negative emotional issues are prominent among "empty-nest" disabled elderly individuals and are significantly correlated with sleep quality and chronic conditions, suggesting that mental health should be an integral component of continuity of care [16]. Moreover, the availability of family support resources directly influences the utilization patterns of socialized care services [5].

5. Evaluation of Transitional Care Effectiveness

5.1 Primary Outcome Indicators

Existing research evaluating the effectiveness of transitional care primarily focuses on three dimensions. Regarding **clinical outcomes**, multiple studies have demonstrated that extended care or discharge planning

services can significantly reduce readmission rates and complication incidences among disabled elderly populations while simultaneously delaying functional decline [10, 11, 17].

In terms of **patient and family outcomes**, intervention groups consistently outperform control groups in areas such as quality of life, care satisfaction, and caregiver burden [13, 16]. Regarding **economic effects**, several studies suggest that transitional care can lower overall medical costs by reducing unplanned readmissions, although there remains a notable lack of systematic cost-effectiveness analyses.

5.2 Evaluation Tools and Existing Limitations

Currently, most studies utilize self-designed questionnaires or generic scales, such as the Barthel Index and SF-36, for effectiveness evaluation. There is a distinct lack of standardized measurement tools specifically designed to assess the core elements of transitional care, including the quality of information transfer, management coordination, and relational continuity.

Although the discharge planning service model constructed by Chen Qiongqiong and colleagues encompasses five stages—assessment, planning, implementation, evaluation, and follow-up—subsequent research still lacks fidelity evaluations regarding the implementation process and long-term outcome tracking [18]. Furthermore, the lack of uniformity in evaluation indicators makes it difficult to conduct horizontal comparisons or meta-analytical integration across different studies.

6. Discussion and Future Outlook

6.1 Main Characteristics and Limitations of Existing Research

A systematic review of current literature reveals several distinct characteristics and limitations. First, interventional research remains relatively weak, as most studies are confined to status surveys, needs assessments, or model construction. The scarcity of high-quality randomized controlled trials and long-term follow-up studies limits the strength of causal inferences. Second, there is a lack of unified evaluation standards for the effectiveness of transitional care. Outcome indicators exhibit significant heterogeneity, and direct measurements of core dimensions, such as informational and relational continuity, are often missing. Third, attention toward rural and underdeveloped regions is seriously insufficient. Existing research is predominantly concentrated in urban or institutional settings, whereas the disabled elderly in rural areas face far more severe challenges regarding service accessibility [5, 6]. Fourth, research from the perspective of patients and their families is relatively underdeveloped. Although caregiver burden is frequently addressed, few studies prioritize the care preferences, decision-making participation, and personal experiences of the disabled elderly themselves as primary outcomes. Finally, research into multi-stakeholder collaboration mechanisms lacks depth. While many studies identify the issue of “fragmented collaboration,” there is a lack of systematic exploration regarding the design of effective cross-organizational incentive structures and information-sharing governance mechanisms [3, 4].

6.2 Future Research Directions

Building upon these limitations, future research should be deepened in several key areas. Theoretical construction must be localized by developing a theoretical framework for transitional care that aligns with China’s national conditions and the integrated medical-nursing service system, thereby clarifying conceptual boundaries and key impact pathways. Furthermore, high-quality interventional studies are needed. Researchers should employ randomized controlled trials or quasi-experimental methods, such as stepped-wedge designs and regression discontinuity, to verify the net effects of various practice models in real-world settings while emphasizing process evaluation and long-term follow-up. Mechanism research should also be deepened through mixed-methods approaches to analyze the interactions between policy, organizational, and individual factors, with a particular focus on how long-term care insurance payment methods influence service provision behavior [14]. Additionally, the potential of technology-enabled pathways should be explored, specifically investigating how the Internet of Things, remote monitoring, and artificial intelligence can facilitate cross-institutional information sharing and care coordination to overcome information barriers [4]. Lastly, precision segmentation research should be conducted to develop differentiated transitional care

programs tailored to various disability levels, types of impairment (e.g., cognitive vs. physical), living arrangements, and urban-rural backgrounds.

6.3 Recommendations for Nursing Practice

To facilitate the translation of research findings into practice, several recommendations are proposed. At the policy level, the establishment of unified national disability assessment standards and long-term care insurance benefit lists should be accelerated, ensuring that critical transitional services such as discharge planning, transitional care, and home rehabilitation guidance are explicitly included in the scope of coverage [14]. At the institutional level, there is a need to proactively construct multi-stakeholder collaborative information-sharing platforms and clearly define the professional boundaries and communication protocols for community nurses and care coordinators [4]. Regarding education, integrated care competencies and interdisciplinary collaborative skills should be incorporated into the core curriculum of nursing professional development. Finally, at the practical level, family-centered support systems must be strengthened by providing caregivers with systematic, multi-dimensional training and comprehensive psychological support [13, 19].

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