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RESEARCH ARTICLE

TRANSITIONAL CARE FOR OLDER ADULTS WITH CHRONIC ILLNESS - AN INTEGRATED REVIEW

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Abstract

The increasing trend in the older adult population is proportionate to the burden of chronic illness among them, necessitating the need to move between varied care settings to relieve their pronounced discomforts. Literature reports a high incidence of potentially inappropriate medication, preventable complications, and caregiver burden during this phase. Transitional care plays a vital role in ensuring health care continuity, avoiding preventable poor outcomes among at-risk populations, and promoting the safe and timely transfer of patients from one level of care to another or from one type of setting to another. This review explores and crystallizes empirical literature on transitional care for older adults with an aim to comprehensively articulate its significance, components, interventions, and outcomes. The importance of coordinated and empowered transition between varied care settings is illuminated in this review. The components of transitional care from global evidence string together the staffing and competency requirements. The vastness of interventions employed within transitional care models provides the scope for practitioners to select feasible and affordable interventions within their practice settings. A glimpse into the outcomes of transitional care directs health and social care personnel to weigh outcomes greater than establishment investments.

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Introduction:-

World Health Organization reports that, global population of older adults (above 60 years) will increase from 12% in 2015 to 22% in 2050, and most of them will be living in low- and middle-income countries (WHO, 2022). The increasing burden of chronic illnesses among older adults is projected to increase (Richard Suzman, 2011). A proportional increase in the disability states of the older adults has also been documented (Chatterji, Byles, Cutler, Seeman, & Verdes, 2015). The complexity of care required for the older adults with chronic illness, magnifies the need to move beyond acute care settings to long-term, social, community and home-based care settings (Kogan, Wilber, & Mosqueda, 2016).

A significant theme contributing to poor transition of older adults from acute care facility to home is potentially inappropriate medications (PIM). The incidence of PIM among hospitalized older adults with diabetes is reported as 74%. The prevalence is significantly high among those taking a higher number of medications, diminished renal function, and female older patients (Sharma et al., 2020). Another cause for apprehension at discharge of older adults is their recipient status for polypharmacy (5-9 medications). Predictors of high-level polypharmacy (>10

medications) are multiple comorbidities (≥ 3), angina pectoris, and hospitalization ≥ 10 days (Harugeri, Joseph, Parthasarathi, Ramesh, & Guido, 2010). Polypharmacy and PIM are under recognized causes of readmission to hospitals (Sehgal et al., 2013). Inconsistencies in the knowledge and application of supportive care augments to the challenges during the transition phase of older adults. Though the knowledge of foot care is prevalent among older adults with diabetes, a third of them implement the precautions, and a tenth of them develop foot ulcers (Narayana, 2020). Furthermore, the caregivers' lack of expertise in the provision of supportive care prolongs their caring hours, proportionately increasing their burden (Bhattacharjee, Vairale, Gawali, & Dalal, 2012). Lack of awareness on availability of outreach care services leads to poor transition of older adults after a hospitalization episode.

The term transitional care is novice in India. The structure that closely correlates with the foundational principles of transitional care is Home Health Care. There exists a wide continuum of these services in India, and is classified as organized, semi-organized and unorganized. Most organized sectors take their root from well-established private hospital, in which home-visit and follow-up by health care professional is not a mandate. The semi-organized set-up supports home care provided by trained medical staff who do not have a professional status. Most of these organizations are business minded with limited empowerment provided to caregivers. The unorganized setting of home care constitutes the largest percentage. The care provider is hired by the family and provided on-the-job training by the family or visiting physician (Dr Bala Krishnamoorthy, ND).

This review aims to explore and crystallize literature available on transitional care with an aim to comprehensively articulate its significance, components, interventions, and outcomes. Three themes were generated from the extensive review of literature.

I. Care Transition requires Transitional Care

Care transition refers to the movement of patients from one health care practitioner or setting to another as their conditions and care needs change. Older people have complex health care needs and often require care in multiple settings across the continuum. There is increasing evidence that serious deficiencies exist for older patients undergoing transitions across sites of care. The care transition options available for the older adults includes:

Community-based care settings comprising of home care services, independent senior housing, retirement communities, residential care facilities, adult day health programs, primary care clinics, and public health departments. The growth of home and community health care is expected to continue because older people prefer to age in place, and the rapidly escalating health care costs.

Adult Day Services: are designed to provide social and some health services to adults who need supervised care in a safe setting during the day. They also offer caregivers respite from their responsibilities of caregiving, and most provide educational programs for caregivers and support groups.

Residential Care Facilities: is a broad term for a range of non-medical, community-based residential settings that house two or more unrelated adults and provide services such as meals, medication supervision or reminders, activities, transportation, or assistance with activities of daily living.

Assisted Living is a residential long-term care choice for older adults who need more than an independent living environment but do not need the 24 hours / day skilled nursing care and the constant monitoring of a skilled nursing facility.

Continuing Care Retirement Communities: provide the full range of residential options, from single-family homes to skilled nursing facilities all in one location.

Acute care: older adults comprise 60% of medical-surgical patients and 46% of critical care patients. These settings pose great threat to elders, as they are at risk for functional decline and iatrogenic complications.

Nursing Homes (Long-term Facilities): is required for sub-acute care, long-term care, or end-of-life care. They require access to rehabilitation and restorative care services that maintain or improve their function and prevent excess disability. These services require comprehensive multidisciplinary assessment and involvement of the family and in development of plan of care.

The transitions in care received from these healthcare settings are often not coordinated or connected with each other and can impose multifaceted challenges and strains. The care transition expectations from the perspectives of the older adults includes medication assistance; enhancement of self-management skills; patient centered and owned records; timely follow up from primary care providers; and knowledge of the triggers indicating deterioration and what is to be done in such circumstances (Coleman et al., 2004).

Care transitions across these settings requires a strong and consistent channel of communication, which can be implemented through transitional care interventions (Clare & Hofmeyer, 1998). According to Naylor et al transitional care (TC) refers to a broad range of time-limited services designed to ensure health care continuity, avoid preventable poor outcomes among at-risk populations, and promote the safe and timely transfer of patients from one level of care to another or from one type of setting to another (M. D. Naylor, Aiken, Kurtzman, Olds, & Hirschman, 2011).

II. Transitional Care Components

From the definitions stated above, the core competencies required for the establishment of a transitional care model can be derived. A summary of these competencies and their characteristics are summarized below (Hirschman, Shaid, McCauley, Pauly, & Naylor, 2015).

Screening: targets older adults transitioning from hospital to home who are at high risk for poor outcomes. Key evidence-based risk factors used to screen patients who would benefit from transitional care interventions includes:

1. five or more active chronic illnesses
2. a recent fall
3. deficits in basic activities of daily living
4. a diagnosis of dementia or poor performance on cognitive impairment screening tools
5. history of mental or emotional health problems (e.g., depression or anxiety)
6. hospitalization within the past 30 days or two or more hospitalizations within the past six months

Staffing: Master prepared registered nurse with current clinical expertise is recommended to play the lead role in a transitional care model. Provision of comprehensive and culturally sensitive care, efficient administration of TC interventions, and liaison with team members are the cardinal responsibilities of lead team player.

Maintaining Relationships: The master prepared nurse requires to utilize evidence-based in-patient and telephonic communications to develop and maintain trusting relationship with the older adult patients and their caregivers. To serve as an advocate to community-based clinicians and team members, efficient professional relationships is a mandatory requirement for the nurse leading the TC interventions.

Engaging Patients and Caregivers: serves as the functional unit of a TC model. This is achieved by developing and implementing care plans based on the preferences, values, and goals of patients and their caregivers. The estimated interventions are introduced in increments to optimize maximum participation and benefit. Wholesome documentation and periodic reporting to team members on the attainment of goals is also essential.

Assessing / Managing Risks and Symptoms: requires the implementation of a comprehensive assessment. Evidence-based literature emphasizes the need to include the following domains in the comprehensive assessment.

1. Overall functional status
2. Cognition
3. Mental health
4. Physical symptoms
5. Perceived health and quality of life
6. Family caregiver needs.
7. Use of high-risk medications
8. Polypharmacy

Researchers also advocated for other domains based on the medical history of the patients. these domains include fall risk, continence, nutrition, pain, skin integrity and substance abuse.

Education / Promoting Self-management: Preparing older adult patients and their caregivers to recognize and report worsening signs of their illness is the pivotal function of self-management. This competency is also strengthened by teaching caregivers to maintain an updated personal health record; practicing healthy behaviors; and by encouraging participation in community-based organizations and peer-groups.

Collaborating: Sharing the goals and progress of care with transitional care team members facilitates uninterrupted provision of care, decreases caregiver burden, and reduces adverse health outcomes. Electronic health records and secure emails facilitate effective collaboration.

Promoting Continuity: The master prepared registered nurse serves as the primary care provider in all health care setting visited by the patient. During the in-patient stay, the nurse coordinates the implementation of care by the health team members. After discharge, the role of the lead team nurse is to either visit / communicate with patient till patients and caregivers accommodate to their care expectations.

III. Transitional Care Interventions

Enormous empirical evidence was surveyed and crystallized into TC interventions performed at pre-discharge and post-discharge phases of older adults admitted to hospitals. Literature magnifies that best practices of TC have been initiated early during the admission of older adults to hospitals. The multifaceted interventions incorporated during pre-discharge phase has been classified and summarized from evidence-based literature.

Pre-discharge Transitional Care Interventions

[a]. Assessment

A major focus highlighted in literature is the importance of assessing the older adults during their hospitalization phase. Assessment provides a strong foundation for the development and implementation of an individualized care plan based on the care needs identified during assessment.

Naylor (2004) has emphasized the need for discharge assessment to precede discharge planning and discharge coordination. The implementation of Comprehensive Geriatric Assessment (CGA) was associated with decreased incidence of falls (Davison, Bond, Dawson, Steen, & Kenny, 2005), decreased re-admission rates (Caplan et al., 1999), and increased institutionalization (Mion et al., 2003). Though these findings were not statistically significant, the impact of CGA in decreasing the morbidity state of the older adults is magnified. Comorbidities among older adults along with their degenerative physiologic changes, is manifested in varied formats and requires more focused examination and tailored interventions. Fairhall (2011) has studied the continuum of functional deviation experienced by the older adults and the specific assessments required to elicit these changes. Older adults with unstable health states require medical assessment. The undernourished older adults require further evaluation from a nutritionist. Psychological imbalances in the older adults are to be further investigated using 'Geriatric Depression Scale'. A Mini Mental Status Examination elicits impaired cognition among the older adults. Special attention to be paid to the detection of impaired sensory function, using brief clinical assessments. The most distressing decline in mobility standards is also to be carefully ascertained.

[b]. Development of a discharge plan

The discharge plan serves as the framework for effective implementation of TC interventions. The drafting of the discharge plan is a wholesome experience, requiring an individualized approach utilizing efficient coordination and collaboration processes. The health personnel who initiate the task of discharge planning is required to facilitate the process and implementation of the discharge plan. Advanced Practice Nurses (M. D. Naylor, 2006), nurse case managers, research nurses (Preen et al., 2005), specialist elder care teams (Crotty et al., 2005) and social workers (Altfeld et al., 2013) have most often initiated the discharge plan process. Naylor (1994) proposes the need to develop the discharge plan within 48 hours of the older adults admitted to the hospital settings. The author reinforces a multidisciplinary coordinated approach in drafting the plan. The inclusion of the General Practitioner (GP) for the validation of the discharge plan has yielded empirically significant outcomes of benefit for the older adults (McInnes, Mira, Atkin, Kennedy, & Cullen, 1999; Weinberger, Oddone, & Henderson, 1996). The inclusion of the contact details of the primary care provider during the post-discharge phase and the scheduling of their first appointment with these providers has significant impact on re-hospitalization rates and veteran satisfaction (Weinberger et al., 1996).

Two empirically successful models are quoted to illuminate the creation and validation of an effective discharge plan. Preen (2005) tested a hospital coordinated discharge plan with the involvement of the (GP). The discharge plan which constituted the discharge problems, goals and community service provider was drafted by the research nurse in mediation with the hospital treating team and patients and their cares' concerns. The discharge plan was faxed to the General Practitioner who will treating the patient after discharge, 24 to 48 hours prior to discharge. The GP reviewed the plan and returned the plan by fax incorporating his recommendations and feasibility. The research nurse disseminates the finalized form of the discharge plan to the patient and schedules the first appointment with the GP.

The Enhanced Discharge Planning Program (EDPP) is mediated by a social worker who reviews the medical record of the patient to identify medical and psychosocial interventions required by the patient after discharge. The reviewed information and the existing resources available in the community is considered by the social worker, when reviewing the discharge plan drafted by the hospital based multi-disciplinary team. Problem areas which failed to take a place in the discharge plan is highlighted by the social worker for further assessment and modification of discharge plan (Altfeld et al., 2013).

[c]. Health education

This serves as the core content of transitional care intervention delivered to the patient and their caregivers during their pre-discharge time frame (Enguidanos, Gibbs, & Jamison, 2012; Weinberger et al., 1996). The core themes infused in these sessions include symptom management, self-management, goal setting, and medical management (Legrain et al., 2011; Naylor et al., 2004).

Post-discharge Transitional Care Intervention

[a]. Follow-up

The core themes threaded during the post-discharge phase is follow up. The period, nature and methods followed are negotiable and literature magnifies manifold variations. The time frame advocated in most TC interventions ranges between 4 weeks (Naylor et al., 1994) to 3 months (Naylor et al., 2004). The nature of follow up sways between the continuums of schedule regular follow up (Enguidanos et al., 2012) to need-based follow up. Home visits or telephone follow-ups were the variations noted in the method of follow up. The initial follow-up enquiries were to identify the ability of the elders and their caregivers to adjust to the imposed therapeutic routines (Altfeld et al., 2013); to assess the frailty characteristics of the older adults (Cameron et al., 2013); to screen for older adults who are risk for functional loss (Asmus-Szepesi et al., 2011); and to identify older adults at risk for falls. Goal Attainment Scaling (GAS) is often advocated by multidisciplinary teams during the initial follow up visits (Asmus-Szepesi et al., 2011) to develop an individualized plan of care based on the multifaceted needs of the older adults after their hospitalization episode. Periodical follow-ups are more dispersed and focuses on the need for support services (Fairhall et al., 2011), and to liaison with the service providers for successful care transitions (Altfeld et al., 2013).

[b]. Continued and Coordinated Care with Primary Care Providers

Another significant component during the post-discharge phase is the adherence of the elders to their first appointment with their primary care provider. Arranging and scheduling the visit is the prime task of the discharge coordinator (Altfeld et al., 2013). During the visit, re-evaluation and modification of the care plan is considered based on the current health standards, requirements, and confidence of the caregivers in administering the care to the older adults (Hansen, Poulsen, & Sørensen, 1995).

[c]. Medication Review

Medication review is an integral part of TC interventions in the post-discharge phase of the older adults. The comorbid states experienced by the older adults and the transfer between health care settings can make medical reconciliation difficult to comply with (Chhabra et al., 2012). Forster and colleagues (2003) in their prospective study found that 66 % of adverse events from a hospital care transition were adverse drug events, and 42 % were found to have medication continuity errors within 2 months of a hospital discharge (Forster, Murff, Peterson, Gandhi, & Bates, 2003). Empirically successful methods of medication review include (Gellad, Grenard, & Marcum, 2011):

1. Medication Possession Ratio (MPR): The days of prescription supply dispensed divided by the number of days between the prescription refills.

2. Cumulative Medication Gap: number of days in which the medication was not available between each fill divided by the number of days between the first and last fill.
3. Pill count which calibrates under adherence as < 70% compliance and over adherence as > 120% compliance
4. Medication-monitoring Cap System (MEMS): Adherence was defined as the percentage of days that the correct number of doses was taken.
5. Caregivers' reports of patients' medication adherence
6. Self-report

Evidence-based conclusions suggest the need to improve patient-prescriber relationship is an area for future research to potentially improve patients' adherence.

[d]. Empowering the older adults with self-management skills

This serves as a core element required for the success of a TC intervention. Electronic personal health record serves as a strong platform for enhancing the self-management of patients and their caregivers. It also enhances their ability for early detection of complications and to seek prompt interventions (Archer, Fevrier-Thomas, Lokker, McKibbin, & Straus, 2011). Home-monitoring of weight, blood pressure, heart rate and symptoms for elders with heart failure was significantly associated with improvement in health-related quality of life and decline in 30-day re-admission rates (Black et al., 2014).

Outcomes of Transitional Care interventions

The beneficial effects of TC interventions have been creatively classified (Allen, Hutchinson, Brown, & Livingston, 2014). The quality indicators coined by the author comprehensively encompasses the outcomes assessed in multiple randomized control trials involving TC interventions.

The outcomes for the quality indicators of efficiency, effectiveness and safety were grouped by the author as re-hospitalization rates, length of stay, and costs of care. Significant reductions in six-month re-hospitalization rates were documented for the recipients of transitional care. Three studies which studied the effectiveness of TC interventions reported reduction in health care costs. Lim and colleagues (2011) found reduced length of stay when older people were re-admitted following the intervention. Enguidanos (2012) and his research team found fewer visits to general practitioners were required for those people who received the intervention. Other quality indicators empirically evaluated were functional status (Naylor et al., 2004), depression symptoms, symptom management, and quality of life (Preen et al., 2005).

The predictors of person and family centered care were patient satisfaction and care giver burden. Substantial empirical evidencesupports the escalated patient satisfaction (McInnes et al., 1999; Preen et al., 2005; Weinberger et al., 1996); and reduced caregiver burden (Naylor et al., 1994) for the participants who experienced TC interventions.

Timeliness and equity were evaluated through the satisfaction perceived by the GPs towards the timely communication incorporated in TC interventions (Preen et al., 2005). Equity and access to services were ascertained by the revelation that recipients of TC interventions were referred to community-based services accessible to them.

Conclusion:-

Transitional care for older adults with chronic illness is premature in developing countries. The expansive literature review on transitional care for older adults with chronic illness, illuminates the comprehensiveness of the model. This review prompts future researchers to empirically test selected interventions within their care settings. Research incorporated within this review will serve as a framework for health and social care practitioners to construct a customized care model for the population of older adults within their care. Gerontology as a specialization is gaining widespread significance within the educational arena. The wholistic nature of this review could be incorporated into the curriculum of health and social studies. Focused and dedicated teams with the aid of this review could make transitional care a reality in developing countries where the care of older adults is considered a burden.

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