Integrating Services of Frail Elderly Persons: From Vague Concepts to an Action Plan?

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Can we reflect on "the organization of services for older people, and systems of integrated services for frail older persons" with the aim of drawing "a roadmap of research that must be addressed to respond to this important social challenge", without hitting a roadblock? One way to proceed is investigating the two main concepts defining the task at hand - frailty and integration - and hope that hindsight leads to a roadmap design. As a finishing touch, thoughtful proposals offering useful lessons in the specific context of the development of systems of integrated services for frail older persons could be relied on.

Frailty and Integration

Frailty has been defined as: "*a biological syndrome of decreased reserve and resistance to stressors, resulting from cumulative decline across multiple physiologic systems, and causing vulnerability to adverse outcomes*"[1]. A controversial issue is the extent to which components of frailty should be limited to the physiological domain, or should extent to psychosocial, social and other domains[2]. Studensky et al.[3] found that patients and families put a higher priority on the social dimensions of frailty than clinicians. In effect, the syndrome of frailty may include a constellation of components such as sarcopenia, cognitive decline, depression, malnutrition, loss of resilience and functional limitations, as well as biological (hormonal, inflammatory, oxidation) and social problems (loss of significant social roles, social support, economic independence)[4,5]. Frailty has also been defined as a risk by Rockwood & al[6,7,8,9]. In this perspective, frailty is not a syndrome. The constellation of risks included in Rockwood's Frailty Index is large, based on age-related deficits, including disabilities and chronic diseases. Though the definition of frailty may not be as operational as wished for, the idea of a constellation of interrelated physiological deficits gradually or abruptly evolving in the same direction proposes a perspective for the organization of services centred on the person, not on specific diseases, impairments or disabilities. It can be retain from the different conceptualizations of frailty that a subset of older individuals, frail individuals, is characterized as having a greater multisystem instability than their same-age peers[10]. This constellation of characteristics that decline at different rates is in line with the observation that elderly persons are not only heterogeneous in their health status, but also in their pathways from good to poor health[30] .

Specific interventions targeting frail older persons cover a large spectrum: screening frail elderly persons[11], home-based programs[12], telecare[13], hospital discharge planning[14], physical activity programs[15], or health promotion [16]. Specific and independent initiatives may help some frail elderly persons and their caregivers, but the organization of services adapted to their needs requires coordination across a broad range of interventions at the clinical, public health, and health and social care system levels. Thus, integration of a large spectrum of services for frail elderly persons seems to be a good idea!

What is integration? The concept is vague with undefined boundaries, and the practice of integration is a pandemonium[17]. This confusion is manifested through the multiple referents in analysis and comments on service integration[18]. For instance, patients, health care providers, executives, and departmental managers have a different view of the concept of integration. There is a plethora of synonyms for integration: coordination, cooperation, managed care, continuity of care, networking. Integration is described[18] based on its target population (the entire population of a territory, the elderly), its specific type (functional, vocational, clinical[19], its different levels (financial, administrative, clinical), its scope (horizontal and vertical), and its level of integration (patient referrals among health care providers, coordination and full integration).

The three ideas stem from making the frail elderly the focus of service integration : (1) the condition of the frail elderly is better understood as multiple, interlinked pathways involving the interaction of many physiological systems determined by biological, psychological, and social factors; (2) focussing on the condition of frail elderly persons requires giving priorities to integration at the intervention level: clinical and public health; (3) financing, organizing, and managing health and social services are instrumental to clinical and public health intervention.

The best definitions of integration refer to these three ideas. Leutz's definition[20] (1999) focuses on the relationships between the different social and health care services; Nies and Berman[21] add the combination of services that are necessary to meet the needs of individuals with multiple health conditions to Leutz's definition. Kodner and Spreeuwenberg[17]stress the need to link all the sectors of social and health care services by aligning financial, administrative, and clinical incentives and modalities. A definition of service integration should refer to all of these items. Thus:

> *Service integration is the process of combining social and health care services in order to meet the needs of the frail elderly, through alignment of financial, administrative, and clinical management incentives and modalities with the clinical practices of the multidisciplinary team in charge of their health and social care[22].*

Target Population for Integrated Services

Integration can be defined in terms of its target population[18],specific type[19]), different levels, scope, and level of integration. However, integration initiatives are not dedicated to only one group, as in the severely disabled frail elderly who need the full spectrum of health and social services. The level of integration increases with the complexity of patient needs[23]. With low complexity, ready access to services, sharing of information on patient's health and need for services, references to providers and follow-up are needed. The next level in the Nolte & McKee[23] scheme is a coordination of care with a role for health and social care navigators, routine clinical information exchange, and discharge planning. The final level is integration with full case management, a multidisciplinary team managing care across settings, single patient records and information exchange systems.

Each level of care can be thought to address the needs of specific population type. Using population management levels of the care pyramid[24], Nolte & McKee[23] suggest that approximately 5% of the population are highly complex cases in need of the highest level of integrated care; those in need of coordination are in the 15-30% range, while the remaining 65-85% are in the "linkage" category. However, the reality of complex health conditions in the

elderly population makes it far more difficult to equate categories of need with categories of care, and to draw strict boundaries between a state of need and a state of care. The concept of frailty may be of use here. Frailty refers to loss of reserve in multiple physiological systems. Nonetheless, the rates of physiological decline are not equal among persons, and the physiological systems affected are not always the same, or in the same order, thus leaving space for many pathways leading from good health to a high level of impairment, frailty, disability and multi-morbidity. An integrated system of care manages pathways from one level of need to another, making sure that elderly persons and their caregivers are informed, directed to appropriate level of care, and adequately followed.

An example may be useful here. In 2006, the Gerontological Advisory Council (GAC) of Veterans Affairs Canada (VAC) used a population health perspective to conceptualize a system of integrated care for Canadian veterans[25]. Based on a set of integrated best care practices[26] , the model focussed on ways to guarantee a continuum of care adapted to the needs of veterans and their families. Within an integrated health and social care system, three clinical roles were defined for health or social care professionals. They correspond to the Nolte & McKee levels of integrated care: 1) an early intervention specialist who is an expert in prevention and health promotion, works with the veteran and his family. In a navigator role, the specialist also helps veterans find the appropriate type and level of care. The specialist would intervene at the community level, working with non-governmental agencies and other institutions, such as the city council, to promote policies and programs directed at older populations; 2) a care coordinator assesses and manages care for veterans in need of services to maintain their independence. Though able to maintain their autonomy with help from caregivers and health and social care practitioners, these older persons are at least pre-frail, have lost some autonomy, and have some chronic illnesses, though they remain at a relatively stable state of health. The care coordinator plays a role in between the early intervention specialist and the high needs care manager; 3) high needs care managers are assigned to the frail elderly with disabilities, impairments and multi-morbidities. They assist veterans and their families in navigating a complex health and social services system at the moment where the energy needed to search for appropriate health and social service providers is at the lower end. This three pronged team of providers was to work with a multi-disciplinary team whose services would be accessible through a single entry point, with health and social needs assessment tools, an information management system and the ability to move resources for veterans and their families when needed.

Though the GAC proposal was not implemented, it was used by VAC to develop policies for Canadian veterans. Also, GAC made it clear that its proposal should be implemented on a population-wide basis in all Canadian provinces.

A Population Health Perspective?

Integrated care is often thought to be for elderly persons at the high end of the impairment, frailty and disability spectrum. There are many good reasons for this. These individuals need complex care, yet the information on appropriateness, availability and accessibility of health and social services is not readily available. There are as many service entry points as there are providers. Payment schedules for the wide variety of health care and social services needed are often obscure, if not misleading. While some services are fully covered by the public system, others are partially covered, or not covered at all. The responsibility for quality of care, seamless

navigation of patients through health and social care, budgeting and financing are isolated in silos. Information that tracks patient health and social status is not timely available to service providers. The opportunity to develop integrated care for frail elderly persons, as difficult as it is to implement, may be more viable than the development of an integrated system of care with a population health perspective. However, a population perspective has been used by the GAC. This proposal[25] develops a system of integrated care for the elderly population and provides a useful working framework for extending the mission of integrated care systems to the whole elderly population, with realistic proposals adapted along the spectrum of health and social conditions.

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