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To cite this article: Kallol Kumar Bhattacharyya, Victor Molinari, Kathy Black & Susan Krauss Whitbourne (2022): Creating age-friendly nursing homes: The time is now, Gerontology & Geriatrics Education, DOI: [10.1080/02701960.2022.2106981](https://doi.org/10.1080/02701960.2022.2106981)

To link to this article: <https://doi.org/10.1080/02701960.2022.2106981>



Published online: 11 Aug 2022.



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Creating age-friendly nursing homes: The time is now

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ABSTRACT

The current global age-friendly movement supports older adults by promoting different policies and services. However, there is a dearth of attention to nursing home (NH) residents as part of age-friendly movements. The pioneering idea of an age-friendly health system, i.e., the “4 Ms” model is significant for NHs and formative for further developments; however, it does not identify unique components of NH care. This article aims to identify specific aspects of person-centered care in the literature to advance the development of a standardized conceptual framework. Along with residents, NH staff and administrators are integral parts of NHs. Incorporating the central role of caregivers, this study proposes a new “8 Ms” framework to describe the age-friendly NH. The traditional 4 Ms model notes that everything related to care matters to residents, along with care related to *medication, mobility, and mentation*. The proposed age-friendly framework introduces five additional “M,” i.e., *meaningful care, motivation, moderation, modification, and monitoring*. This framework is proposed to advance education, training, clinical practice, research, and advocacy to promote quality of care in NHs. Application of the 8 Ms framework may yield multiple benefits, assuring good quality of care to residents, caregivers’ job satisfaction, and supporting NH management in providing residents optimal care.

KEYWORDS

Age-friendly; nursing home; person-centered care; conceptual framework; quality of care

Introduction

An age-friendly environment promotes health and well-being for older adults by ensuring safe, secure, and livable surroundings (Fulmer et al., 2020). As defined by the World Health Organization (WHO), “Age-friendly environments (such as in the home, community) foster healthy and active ageing by building and maintaining intrinsic capacity across the life course and enabling greater functional ability in someone with a given level of capacity” (World Health Organization, 2015, p. 225). In 2007, WHO identified eight core community features, also known as ‘domains of livability,’ across the built environment (i.e., housing, transportation and outdoor space and buildings), social environment (i.e., civic participation and employment, respect and social inclusion, and social participation) and service or municipal environment (i.e., communication and information, community support and health services). While the environmental domains address aspects of community life, the

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notion of age-friendly ‘ecosystem’ has emerged to more fully capture age-friendly developments in other sectors and industries, including age-friendly universities and age-friendly health systems (Fulmer et al., 2020).

Although World Health Organization (2007) encourages accessible, equitable, inclusive, supportive, safe, and secure age-friendly environments to promote better health among older adults, these goals are aspirational and do not include implementation plans. In 2015, WHO identified four priority areas in the Global Strategy and Action Plan on Aging and Health (World Health Organization, 2015) that include aligning health systems to the older population they serve, developing systems of long-term care, creating age-friendly environments, and improving measurement, monitoring, and understanding. In later life, an individual’s healthcare needs often become more complex and chronic (World Health Organization, 2007). An age-friendly community involves a favorable modification of society, emphasizing preventive measures. In the context of healthcare, however, age-friendliness focuses additionally on the therapeutic functions of an improved and comprehensive healthcare system including long-term care settings.

Although the ability to “age in place” is considered desirable by many older adults (Sumner, Chong, Bundele, & Lim, 2020), nearly 1.4 million residents are residing in one of the 1.7 million beds in approximately 15,600 nursing homes (NHs) in the US (Harris-Kojetin et al., 2016). For many older adults, gradually deteriorating health may reduce their capacity to direct their care due to various chronic conditions (De Biasi et al., 2020), and they may need to re-locate to supervised living settings. Therefore, the care needs of many older adults in NHs are different from community living individuals and are largely influenced by restrictions in independence (Bhattacharyya, Molinari, & Hyer, 2021). Although research on age-friendly environments involving community dwelling adults is growing rapidly, there is a dearth of literature focusing on long-term health care settings that serve primarily older adults (Shaw, 2018). As such, residents in these settings could benefit from attention within the age-friendly movement given the role of the environment in promoting the health and well-being of older adult residents. Within the contextual frameworks of age-friendly environments and age-friendly healthcare systems, the present conceptual paper aims to identify specific features of evidence-based NH care to develop an all-inclusive standardized conceptual framework of the age-friendly nursing home (AFNH) to guide educational, training, administrative, clinical, applied research, and policy efforts.

Current organizational practice

Many scholars emphasize person-centered care (PCC) as an essential focus of age-friendly healthcare (e.g., Edelman et al., 2021; Fulmer, Mate, & Berman, 2018; Sanford, Berg-Weger, Lundy, & Morley, 2019), and hence, PCC is an essential element of AFNHs. The idea of a person-centric approach of care shifts the focus of caregiving from a traditional medical model to a more integrative social model in managing chronic conditions (Fazio, Pace, Flinner, & Kallmyer, 2018). According to the Centers for Medicare and Medicaid Services (CMS), PCC is “an individualized goal-oriented care plan based on the person’s preferences, where care is supported by an inter-professional team in which the person is an integral team member” (Lucas & Bowblis, 2017, Ref: Definitions 483.5). Although many NHs

currently offer their residents various engagement activities reflecting person-centric care, they are neither uniformly structured nor prioritized as universally accepted therapeutic regimens (Bhattacharyya et al., 2021).

Resident satisfaction is an integral part of NH quality of care (QOC). Loneliness, helplessness, and boredom are three factors responsible for deteriorating mental health conditions in residents that give rise to insufficient satisfaction with care among NH residents (Desai & Grossberg, 2001). Indeed, although technical competence is a fundamental aspect of healthcare service, it is evident that autonomy, environment, meaningful activities, and interpersonal quality of professionals are the most important predictors for older adults' self-reported satisfaction in NHs (Bhattacharyya et al., 2021). However, such satisfaction is only possible if the needs of all stakeholders, such as caregivers and care-recipients, are addressed. For example, age-friendly university frameworks apply to faculty and staff, and not just to students, to overcome the invisible issue of ageism in higher education (Silverstein et al., 2022). The same principle holds true regarding QOC in NHs, that is, education is an essential key in teaching those working with older adults about the principles of treatment that offer compassion without paternalism.

There is a long history of efforts within the U.S. healthcare system to maintain QOC in NHs and other long-term care facilities (National Academies of Sciences, Engineering, and Medicine, 2022). The Omnibus Budget Reconciliation Act (OBRA) of 1987 was intended to improve the quality of life (QOL) of NH residents by identifying their rights and improving QOC to maintain their best possible physical, mental, and psychosocial wellbeing (Koren, 2010). There have been a series of legislative efforts since then; however, none have been successful at achieving the ultimate goal of maximizing resident welfare (Edelman et al., 2021). The current system of care fails to correspond to the care preferences and needs of many older adult residents (Bartels, 2003). True PCC in NHs should be more than merely meeting some quality measures (Edelman et al., 2021). What matters to residents as documented in care plans should be aligned with PCC (Johnson, Dyck, Hovey, & Shropshire, 2021; Koren, 2010). Therefore, there is an urgent need to implement culture change for early-stage direct care workers (DCWs) guided by public policy and systemic administrative shifts that will refine education and training efforts in the principles of an AFNH to improve the QOC and QOL in NHs.

4 Ms model of age-friendly health care system

A growing challenge among caregivers is to enhance or at least maintain the strengths and abilities of residents through PCC, not only to alleviate symptoms but also to improve QOL (Fazio et al., 2018). The most common current vision of an age-friendly health system, the 4 Ms model, grew out of the need to address meteoric changes in the health care market, and the growing sense that QOC is as important as the quantity of care delivered (Fulmer et al., 2018). The 4 Ms framework, as proposed by the John A Hartford Foundation and the Institute for Healthcare Improvement, focuses on four essentials: knowing what *matters* to the concerned individual to provide the best possible geriatric care; maximizing *mobility* of older adults to provide the best functionality; minimizing the adverse effects of *medications* that negatively impact residents' daily activities and overall QOL; and providing further attention to cognitive functions, including dementia, delirium, and depression (*mentation*) (De Biasi et al., 2020; Fulmer & Li, 2018; Fulmer et al., 2018). The 4 Ms model aims to

minimize the gap between the existing healthcare and the ideology of healthcare (Fulmer & Li, 2018). Bonner, Fulmer, Pelton, and Renton (*in press*) have documented the need for the healthcare community to conceptualize an AFNH that utilizes this 4 Ms model, and advocates for treatment plans, outcome measures, and staff/leadership training to adhere to the 4 Ms. As indicated below, the time is indeed right to begin the hard work of establishing AFNHs to foster better QOC and QOL; however, we believe expanding the 4 Ms to an 8 Ms framework furnishes more evidence and guidance regarding how to accomplish such worthwhile goals.

The 4 Ms healthcare model, attempts to incorporate the care values of older adults and family caregivers (Fulmer & Li, 2018). As an alternative to the traditional medical model, the 4 Ms is an improvement but nevertheless falls short in accommodating certain core aspects of long-term care residents. The 4 Ms model is most applicable to community-living older adults and short-stay NH residents in rehabilitation; its emphasis is on the acute care needs of older adults who have the capacity to direct their care and who are attempting to stay out of institutional settings by active interventions to restore function. In contrast, the 8 Ms framework extends the focus on older adults living long-term in institutional settings with deteriorating, terminal conditions who have their own unique biopsychosocial needs to slow down these processes. Although many of the principles of both the 4 Ms model and 8 Ms framework apply to both short and long-stay NH residents, the 8 Ms framework specifically focuses on long-stay residents who represent a unique older adult population who need institutional care and view NHs as their permanent homes. This latter population often has severe ADL concerns rendering them dependent on the staff for their basic needs. The 8 Ms framework therefore necessitates not only educational changes for older adults to receive proper person-centered care (as in the 4 Ms model), but also systemic change in administration and management which might lead to public policy mandates. Furthermore, the 4 Ms model fails to consider NHs as a workplace environment for formal caregivers (i.e., staff), and the roles of care partners in clinical care and residents' satisfaction. As is clear from the recent experiences associated with the COVID-19 pandemic among NH staff, although social distancing and personal protective equipment safeguard residents from the threat of COVID-19 infection, the possibility of NH staff burnout and further social disengagement of a population that might become isolated has increased (Edelman et al., 2021; Zimmerman et al., 2020). As a result, more strain is placed on caregivers while also reducing both QOC and QOL (Zimmerman et al., 2020). Moreover, although family members report general satisfaction with QOC of their family members in NHs (Williams, Straker, & Applebaum, 2016), more recent research suggests that the pandemic has slowed the implementation of PCC in many NHs (Wee & Yap, 2020). Therefore, for long-stay residents whose capacity to direct their care declines due to deteriorating medical conditions, the probability of NHs incorporating aspects of the age-friendly movement is reduced if not adapted to the unique needs of the long-term care environment and formal caregivers.

Given the focus on the environment as a systemic influence on the well-being and health of NH residents, Donabedian's structure-process-outcome (SPO) analytical framework proves useful in bridging the gap between the 4 Ms healthcare model and the proposed 8 Ms AFNH framework described below. According to the SPO model, in NHs, "Structural" factors entail physical factors, such as the NH's architectural environment and the number and quality of staff. "Process" factors indicate the guidelines care providers follow in

delivering the care, whereas “Outcome” is evaluated through both objective (e.g., health status) and subjective (e.g., consumer satisfaction) indicators (Spangler, Blomqvist, Lindberg, & Winblad, 2019). Thus, the SPO model could serve as a useful basis for assessing the objective and subjective features of the NH environment by applying it to NH staff and administration, as well as residents.

Proposed conceptual framework

In the following section, we explain how the current 4 Ms are applied in NHs, and then proceed to detail how additional Ms are necessary to capture the holistic needs of PCC to create an AFNH. What *matters* to residents is broad and complex, and the 4 Ms model falls short of incorporating the holistic concept of PCC that includes the barriers and facilitators of caregiving. The 4 Ms model largely focuses on rectifying and managing care preferences relative to residents’ physical health outcomes; however, often the preferences of residents are not limited to a specific clinical health outcome. Thus, the fullest implementation of “what *matters*” is only possible when the care is person-centered and comprehensive including all levels of caregivers (Edelman et al., 2021). Indeed, tailoring healthcare conversations to the needs of patients and their families is an essential element of PCC (Edelman et al., 2021; Jazieh, Volker, & Taher, 2018). Given the limitations of the 4 Ms model, the present approach argues for an 8 Ms framework that specifically addresses the needs of a long-term chronic institutionalized population (See Figure 1). Along with care related to the existing 3 M’s of *medication*, *mobility*, and *mentation*, we propose expanding on the fourth M of *what matters* to address the following more specifically: *meaningful care*, *motivation*, *moderation*, *modification*, and *monitoring*. This expansion serves to address not only residents’ concerns, but also the needs and roles of paid caregivers and those of the administration who contribute, as implied in the SPO model, in meeting the objective and subjective needs of its residents. Table 1 provides descriptions of each component of the 8 Ms framework. As demonstrated in Table 1, although some of the 8 Ms are more associated with one group of stakeholders than another, they are all interrelated.

From 4 Ms to 8 Ms: Components of the 4 Ms model in relation to AFNH care

Medication

Antipsychotic overuse is a significant problem in NHs. These *medications* are reported to serve as ‘chemical restraints’ because of their adverse effects, including drowsiness, dizziness, restlessness, weight gain, etc. (Lucas & Bowblis, 2017). These side effects may reduce the QOL of already debilitated NH residents. For NH residents admitted with mental health problems, many are victims of polypharmacy, i.e., taking multiple drugs concurrently, which leads to major drug interactions. Research has revealed that adverse drug reactions, if considered as a disease, would be the fifth major cause of mortality in the US (Saxon, Etten, & Perkins, 2014). Furthermore, 85% of new NH residents continued to receive psychoactive medication three months after admission, and 19% are on more than three psychoactive medications, signifying that psychopharmacological therapy remains the main management approach (Molinari et al., 2011). CMS’s initiation of multidimensional

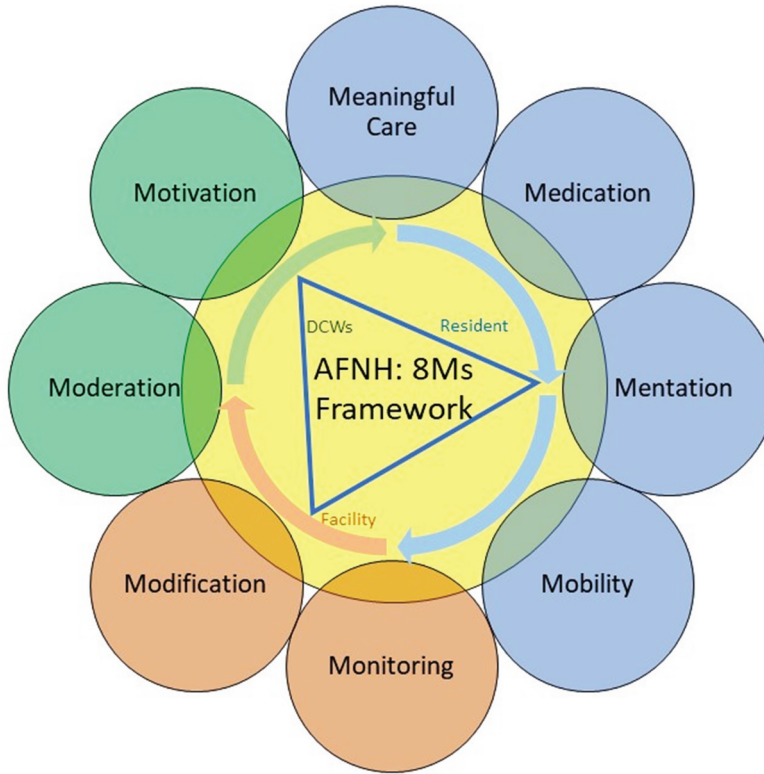


Figure 1. Proposed overarching 8 Ms framework to promote the age-friendly nursing home. Note: AFNH = Age-friendly nursing home; DCWs = Direct care workers

Table 1. Description of categories in the 8 Ms framework.

8 M Categories	Description
Resident-level	
1. Medication	Ensuring medication reconciliation and reducing the unnecessary usage of antipsychotic medications
2. Mentation	Preventing and managing cognitive decline maximizing independence
3. Mobility	Ensuring older adults' daily movements to maintain various physiological functions, body flexibility
4. Meaningful Care	Care that promotes meaningful engagement, including social interaction and active participation in daily life events
DCWs/staff-level	
5. Motivation	Encouraging NH staff by investing in better staff benefits including monetary compensation and training opportunities
6. Moderation	Maintaining both enough and qualified workforce to reduce the workload and staff burnout
Facility-level	
7. Monitoring	Regular supervision and evaluation of staff to ensure that the best quality of care is offered to the residents
8. Modification	Environmental modification including architectural modification to promote residents' psychological acceptance of the place and environment

strategies during 2012–13 to reduce the use of unnecessary antipsychotic medications in NHs, especially their widespread use to control behavioral symptoms of dementia, is considered a state-of-art movement in maintaining residents' QOL. Using the Certification and Survey Provider Enhanced Reports (CASPER) dataset, Lucas and

Bowblis (2017) examined the prevalence of antipsychotic use following the CMS mandate to reduce its frequency in NHs; they found those strategies to be associated with a modest reduction in antipsychotic prevalence among NH residents. The authors also found that the proportion of inspections resulting in deficiency citations for unnecessary drug use (F329) showed a dramatic drop of 1.62 percentage points after the partnership launched. However, it should be noted that the main guiding principle regarding medication prescriptions should be the judicious use of psychiatric medications, not necessarily their elimination. For example, some residents with Serious Mental Illness in NHs require psychiatric medications, but these patients must be monitored closely and encouraged to be engaged in meaningful activities. In addition to antipsychotics, other potentially harmful interactions can occur with medications used to treat chronic conditions such as hypertension, osteoarthritis, and sleep disorders, all of which can impair the patient's psychological and physical functioning.

Mobility

Mobility is essential to perform various physical and social activities, including activities of daily living (Gattinger et al., 2017). From residents' perspective, sufficient mobility through easy navigation and physical activities is essential to maintain various physiological functions, body flexibility, and to reduce chances of falls (De Biasi et al., 2020). Falls are a leading public health concern, especially for those older than 65 years; about 95% of all fractures in older people occur as a serious consequence of falls (Saxon et al., 2014). On the one hand, regular physical activity is beneficial for many chronic conditions, such as cardiovascular, cognitive, and metabolic disorders (e.g., thyroid and diabetes) (De Biasi et al., 2020). On the other hand, loss of mobility may enhance risks of developing decubitus ulcers and malnutrition (Gattinger et al., 2017). Mobility impairment in long-stay NH residents is common, with approximately two-thirds dependent on wheelchairs (Harrington, Carrillo, & Garfield, 2015; Harrington, Carrillo, Garfield, & Squires, 2018) and around 4% are bedridden (Harrington et al., 2018). Research has found that a high number of deficiency citations are related to QOC and most of these are associated with poor safety culture environments in NHs (Castle, Wagner, Ferguson, & Handler, 2011). There should be enough support and encouragement for NH residents to optimize their functionality and maintain their independence to better maintain their QOL.

Mentation

The *mentation* component emphasizes preventing and managing cognitive decline in healthcare settings. This aim is essential for cognitively impaired residents, and such management could be maximized by providing proper training to staff to promote positive environmental stimulation. Residents with cognitive impairment are more susceptible to abuse and neglect (Castle, 2011), although it is still unclear whether NHs that have a special care unit provide optimum care in maintaining the QOL of residents with dementia (Blackburn et al., 2018), thereby reducing the potential for abuse. Furthermore, many NH residents are ambulatory and cognitively alert, and need to be engaged based on their individual needs. The current PCC culture change movement in NHs reflects the concern for implementing care that enhances interpersonal relationships in multiple ways. For

example, the “Eden Alternative” care model was designed to guide NH practice to move away from a medical model of care to a social model, such as to establish a childcare center on the site of a NH to make it an age-friendly community or to offer free housing to college students in exchange for volunteering which may provide cognitively stimulating inter-generational exchange activities (Shaw, 2018). Accessibility of library, newspaper, telephone service, and internet, including Skype and other social media, may also serve this purpose (Shaw, 2018).

Novel components of the new 8 Ms framework: Expanding on what matters

The 8 Ms AFNH framework complements the 4 Ms model by expanding the “what matters to residents” element into 5 separate domains that succinctly recognize the role not only of residents, but of DCWs and NH administrators/facilities as well. The following 5 Ms more explicitly articulates the ‘*what matters*’ M in the 4 Ms model.

Meaningful care

It is essential that NH residents receive care that is *meaningful* to them. Meaning and purpose are fundamental in every aspect of life; every NH resident is entitled to experience these contributors to QOL (De Biasi et al., 2020; Drageset, Haugan, & Tranvåg, 2017). Indeed, in applying Maslow’s hierarchy of needs to NH residents, self-actualization becomes a worthwhile and achievable goal even for those residents who are cognitively and physically impaired (National Academies of Sciences, Engineering, and Medicine, 2022). Although *meaningful care* may be viewed as similar to “knowing what matters” in the 4 Ms model, this ‘M’ focuses on the interpersonal element of meaningful activity. This subjective perception may be achieved through social interaction and active participation in daily life events (Bhattacharyya et al., 2021). Delivering PCC offers a promising way to provide *meaningful care*, which should also honor end-of-life conversations (Edelman et al., 2021). Resident characteristics predict QOL in a particular NH better when residents maintain functional abilities and have a stimulating social environment (Shippee, Henning-Smith, Kane, & Lewis, 2015).

Meaningful engagement, as a process factor in the NH context, in everyday life through social interaction and close companionship is crucial for improving the QOL of residents in long-term care (Bhattacharyya, Craft Morgan, & Burgess, 2021), and promotes resident satisfaction (outcome factor; Spangler et al., 2019). In this regard, complementary and alternative approaches, including mindfulness practices like yoga, laughter therapy, pet therapy, music therapy, and gardening may provide symptom reduction leading to improved QOL of residents (Bhattacharyya et al., 2021). Although better scores on the clinical QOC measures might be predictive of consumer satisfaction, those measures do not substitute for consumer voices demanding meaningful engagement within the context of a community home-like environment (Bhattacharyya et al., 2021). For example, the Green House program, pioneered by William Thomas, attempts to actualize this concept by reducing the hierarchical structure of staff versus residents, and by creating a true social model of care in a more homelike environment (Rabig, Thomas, Kane, Cutler, & McAlilly, 2006). Green house NHs improve self-reported QOL in residents without decrements in QOC (Kane, Lum, Cutler, Degenholtz, & Yu, 2007)

Motivation

Expanding on what matters to include staff *motivation*, the 8 Ms framework proposes that caregiving staff require training to recognize residents' needs and to help residents live a dignified life with the autonomy to exercise control over their day-to-day activities as much as possible. Many studies focus on the basic content of staff training, but optimal interactive training methods, such as demonstration, role play, and/or intervention delivery, are still not clearly defined in a way that can enhance not only their abilities but the incentives to provide improved care (Kemeny & Mabry, 2017). Thus, caregiving staff need to know the life story of the person to make the NH a 'home away from home;' for this, the caregiver needs to devote time to understand the care recipient (Bhattacharyya et al., 2021). Unless a caregiver dedicates sufficient time, caregiving will remain a mere 'nursing home job.' Enlisting the support of caregivers is thereby important but such personalized care is often impeded by the instrumental demands of caregiving (e.g., toileting, cleaning, etc.), leading to burnout (Bhattacharyya et al., 2021; Scales, 2020). Although most NH staff are deeply concerned about the care of the residents, they are responsible for and are tasked with duties that reflect both the priorities and limitations of the NH administration, which often include constraints on resources such as staff allowance, personnel costs, and regulatory requirements (Scales et al., 2019). Various studies have revealed that factors such as staff turnover, lack of supervisors' support, and increasing residents' demands act as barriers to implement PCC in NHs (Scales, 2020; Scales et al., 2019).

Therefore, *motivating* NH staff by investing in better staff benefits may result in an increased likelihood of staff retention and thereby improve residents' QOL. Along with monetary incentives, other supports like career development opportunities may increase staff retention (Berridge, Tyler, & Miller, 2018; Bowblis, 2011), and programs to empower staff members may positively affect resident outcomes (Barry, Brannon, & Mor, 2005). Paid caregivers' job satisfaction has a direct impact on healthcare services provided in a NH (Plaku-Alakbarova, Punnett, & Gore, 2018; Zhang, Punnett, & Gore, 2014). The COVID pandemic has enhanced the care needs of residents leading to further staff burnout (Scales, 2020), with difficulties in recruiting and retaining staff.

Moderation

Through *moderation*, AFNHs need to maintain both a large enough and qualified workforce to reduce staff workload. Accumulating evidence suggests that the number of available NH staff directly affects improved health outcomes of residents; increasing the workload of these staff members or remaining support staff may reduce the quality of services provided (Bowblis, 2011; Bowblis & Hyer, 2013). Thus, incentivizing and rewarding proper staff behavior (*Motivation*), while also maintaining both enough and qualified workforce to reduce the workload (*Moderation*) is essential to maximize the potential of the staff to deliver thoughtful PCC. Additionally, *Moderation* could certainly be considered as both process and structure of work that influence residents' health outcome. Adequate staffing not only improves resident QOC, but also indirectly enhances the chances of better resident satisfaction through alleviating work strain and reducing the risk of developing depression among formal caregivers (Plaku-Alakbarova et al., 2018). Additionally, adjustments

targeting specific staff-types, such as social service and activities staff, could further improve NH quality, maximizing the return on investment (Bowblis & Roberts, 2020). As nurses are uniquely qualified to provide direct care assistance and medical expertise, staffing levels and qualification of nurses are vital to maintain NH quality (Bowblis & Roberts, 2020; National Academies of Sciences, Engineering, and Medicine, 2022). Indeed, analyzing 70 studies that examined the impact of staffing levels on NH care staff, Castle (2008) found that skill mix, and delivery of care have a more direct impact on the QOC than the specific number of staff members on duty. All these studies show the importance of “Structural” and “Process” factors on health outcomes.

The care contributions of DCWs are often not well recognized by administration (Scales, Lepore, & Kaskie, 2020). As DCWs’ jobs gradually become more demanding, their job-quality decreases, leading to reduced recruitment and retention, a situation which has been aggravated due to the COVID pandemic (Scales, 2020; Scales et al., 2020). Thus, the workload on the existing staff increases, potentially leading to further burnout (Scales, 2020). The success of PCC is very much linked with the staff satisfaction and ability to provide personalized care (Brownie & Nancarrow, 2013). Dissatisfied staff often avoid work responsibilities through working casually or being absent from work, thus, acting as a barrier to implement PCC (Vassbø et al., 2019). Short-term incentives do not work well in the long term; staff needs pacing and a less arduous work environment (Scales et al., 2020). Workforce enhancement by recruiting enough staff with a concomitant reduction in duty hours and lesser number of residents for whom each staff member is responsible could help to improve this situation.

Monitoring

NH administration has dual responsibilities. Besides encouraging staff by providing salaries or incentives to maintain a large enough trained workforce, proper *monitoring* of staff behavior is also necessary to ensure that the best QOC is offered to the residents. Active learning among either DCWs or managerial level staff members can be enhanced by ongoing supervision, evaluation, and monitoring (Kemeny & Mabry, 2017). Online dementia training programs have shown largely positive findings regarding intervention outcomes, such as knowledge acquisition among both formal and informal caregivers (Pleasant, Molinari, Dobbs, Meng, & Hyer, 2020), but it is unclear whether such gains lead to changes in caregiver behavior and care recipients’ health outcomes.

From a Donabedian perspective, facility characteristics (structural factors) and the delivery of care (process factor) mostly impact QOC; however, consumer complaints could also be utilized as a proxy indicator to measure QOC provided in NHs. *Monitoring* can serve to reduce these complaints by ensuring that appropriate policies are not only in place, but also followed. Indeed, during 2005–2014, the average number of consumer complaints per NH increased by 21%, from 3.2 to 3.9, indicating a possible decrease in QOC (United States Government Accountability Office, 2015). It is a tenet of legislation and the function of CMS that along with NH administration, a central authority should monitor services to ensure good quality in NHs. To monitor NHs’ compliance with quality standards, CMS collaborates with state survey agencies to conduct on-site surveys of NHs and to collect data on quality, while facilities self-report their staffing and measurement of clinical quality (Bowblis & Hyer, 2013). Unfortunately, CMS’s five-star

rating system, representing the medical QOC indicators to the public, does not fully reflect what subjectively matters for the residents, and may not adequately reflect caregiving quality (Williams et al., 2016). Furthermore, through “gaming the system,” five-star ratings may be abused by NH administrators seeking to cut corners and maximize profits (National Academies of Sciences, Engineering, and Medicine, 2022). Monitoring thus becomes a key feature of an AFNH in which resident needs and high-quality care are effectively managed.

Modification

Environmental modification including architectural *modification*, even simple changes, such as repositioning a chair or a room, are easily adaptable and very important to ensure effortless navigation of residents to make NHs a livable place. While *mobility* is targeted to minimize the risk of falls and ease of navigation, *modification* promotes residents’ psychological acceptance of the place and environment. Facility characteristics, such as size, occupancy rate, and physical facility’s “look and feel,” such as cleanliness and smell act as major structural factors for adaptation by helping residents to lead their lives in nearly the same way as they lived in their home prior to NH placement (Bhattacharyya et al., 2021; Robinson, Lucas, Castle, Lowe, & Crystal, 2004). Bringing familiar items from home (e.g., pictures, ornaments, or clocks they may have used at home) into the resident’s room to make it more like home contributes to their psychological fulfillment promoting well-being (Abbott et al., 2018).

Lawton’s environmental balance hypothesis applies here, whereby environments are planned to maximize the abilities of impaired residents and are flexible enough to adjust to NH residents progressively lowered stress thresholds (Lawton, 1989). Culture change, as a process factor, enhances resident choice, empowers staff, and should be promoted to improve care and outcomes for residents (Miller, Lepore, Lima, Shield, & Tyler, 2014). In this regard, the role of specialists such as occupational therapists to uplift residents’ self-confidence by improving their functional performances and psychosocial status is gaining popularity (Tonga, Düger, & Karataş, 2015). Many studies interpret QOC as considering only resident’s medical outcomes, such as decubitus ulcers, physical restraint use, or even mortality; some fail to incorporate residents’ satisfaction with the services provided in NHs (Spangler et al., 2019). Therefore, outcome measures should always incorporate additional expectations to be met from the resident’s perspective, such as social care and a favorable environment (Abrahamson, Clark, Perkins, & Arling, 2012).

Implications for practice, policy, and/or research

NH utilization increases with age, creating a dire need to accommodate the demographic trend of increasing life expectancy (Jurkowski, 2018, p. 261). Assuring older adults’ QOL in institutional settings by sustained education and training of personnel, applied research, administrative changes, and public policy initiatives should be a global priority issue. The 8 Ms framework is relevant in this context. Policymakers, consumers, and researchers often criticize NHs in the US due to concerns about the quality of service (Harrington, Schnelle, McGregor, & Simmons, 2016).

Although there is strong interconnectedness among the factors of the 8 Ms framework, the above discussion supports the SPO model by showing how “Structural” factors (e.g., environmental modifications and number of staff) and “Process” factors (e.g., interpersonal relationships between residents and DCWs, and meaningful activities) influence health “Outcomes.” The impact of “Structural” and “Process” factors is often bidirectional. For instance, staff ratio and education (structural factors) impact on meaningful care (process factors), while facility culture and self-esteem of staff (e.g., through staff motivation and moderation as process factors) affect facility environment and staff retention (structural factor); both of which further impact residents’ satisfaction and self-esteem (outcome factor).

In the last three decades, CMS and state survey agencies have implemented several steps to conduct further oversight of NH quality; yet the highest quality of service has still not been achieved (Harrington et al., 2016). Recent circumstances of the COVID-19 pandemic have exposed long-standing concerns related to poor QOC (Edelman et al., 2021). Research has demonstrated that NHs with low star ratings possess a higher health risk of care-related infections compared to higher-rated NHs (Gucwa, Dolar, Ye, & Epstein, 2016). However, quality problems could be addressed if more NHs effectively adapt and implement the age-friendly movement by rigorous education of staff (Edelman et al., 2021). World Health Organization (2013) encourages those working in geriatric settings to follow their guidelines regarding restructuring various interdisciplinary education and training programs for various health professionals to enhance the quantity and quality of services provided for older adults in long-term care settings. Geriatric Workforce Enhancement Programs provide networking, education, and training opportunities, advocacy, and evaluation (Flaherty, Busby-Whitehead, Potter, Lundebjerg, & Trucil, 2019), and also endorse the idea of implementing the age-friendly movement in NHs by integrating academia, geriatrics, and primary care to improve health outcomes in later life (Edelman et al., 2021). The movement could be further strengthened by involving policymakers, such as Agencies on Aging, American Association of Retired Persons, CMS, and NH administrator organizations, as well as advocates for AFNHs focusing more on practice through structures and processes, such as modification, monitoring, moderation, and motivation.

Considerable research supports the use of QOL indicators as superior to QOC indicators in predicting resident outcomes because they tap directly into the residents’ perceptions of their situations (Kane, 2003). The 8 Ms framework, which incorporates both, may yield multiple benefits, assuring good QOC to residents, caregivers’ job satisfaction, and supporting NH management in providing residents the best possible QOL. Creating just architecturally favorable environments for NHs to ensure easy transfer and movement of residents is a big issue; however, it is not the ultimate one. Increasing residents’ QOL through their total involvement needs active human support, i.e., supports from the persons caring for the residents. Caregivers, including DCWs and NH administrators, and care-recipients, i.e., residents and family members, need to understand their roles and expectations. The working concept of an AFNH may be best described by a schematic triangular model (see Figure 2), which is also incorporated into one overarching 8 Ms AFNH framework, (i.e., Figure 1), with three vertices indicating care-receiver (resident), direct caregiver (staff), and care overseer (NH administrator/facility), respectively.

Thus, educating and generating a feeling of responsibility among all people interacting with older adults inside and outside NHs is necessary. This will require training of a workforce that is knowledgeable about the aging process in general as well as the specific

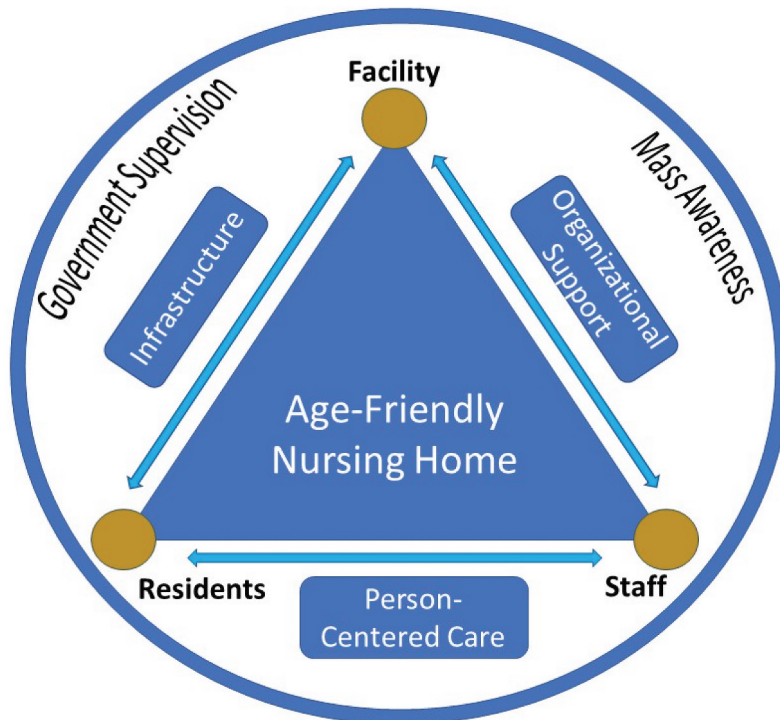


Figure 2. Triangular schematic diagram showing how an age-friendly nursing home works.

health-related needs of an aging population. Further, basic health education through mass awareness is also important; such principles could be incorporated into undergraduate/graduate educational curricula and training of NH staff. Above all, there must be guidance, assistance, and monitoring at the government level to promote the age-friendly movement.

Although the importance of NHs and their significance in terms of financial and emotional costs is growing in the US healthcare system, a substantial number continue with major quality problems (Harrington et al., 2016). Even after multiple reforms and redesigning efforts coordinated through the Senate Special Committee on Aging, the US GAO, and other federal regulatory bodies, the quality of NH care remains complex and elusive (Harrington et al., 2016; National Academies of Sciences, Engineering, and Medicine, 2022). Given that NH residents are extremely vulnerable, regular assessment and ensuring the quality of NH care is essential. Moreover, the evaluation of every resident is different, and the care approach should be individualized depending on the person's needs and living environment to provide good QOC (Takeda, Tanaka, Okochi, & Kazui, 2012). Knowing the landscape of barriers and facilitators for providing PCC in NHs will help to identify and improve public policy and financial reimbursement policies for supporting residents at a deeper meaningful level and to translate ideology into action (Bhattacharyya et al., 2021).

The 8 Ms framework adds to the seminal 4 Ms model by focusing on one healthcare environment, i.e., NHs. It is a work-in-progress. We hope that academicians embrace this framework both as an example of the application of the age-friendly movement and as

a resource with a variety of implications for gerontology and geriatrics. Both frontline DCWs and academic gerontologists need to become familiar with the age-friendly movement to promote an interchange between ‘bench and bedside.’ We believe that our 8 Ms framework is consistent with John Hartford Foundation’s Age-Friendly Health System imperative recommendation for “proactive models that address potential health needs, present avoidable harms, and improve care of people with complex needs” (Fulmer et al., 2018, p. 22).

All components of this conceptual framework need to be tested and optimized in future research to advance state-of-the-art training and practice and to address the question of whether the 8 Ms AFNH framework shows more utility than the 4 Ms healthcare model. Furthermore, assessment of its utility must include both objective (e.g., health status) and subjective (e.g., consumers’ satisfaction) “outcomes” from residents, formal and informal caregivers, and administrators. Cost-efficiency in its implementation should also be evaluated. The age-friendly movement has enormous potential, but for its successful implementation in NHs, a collaborative approach is essential tailored to the unique needs of the NH resident and setting.

Acknowledgments

An earlier version of this research was presented at the Southern Gerontological Society’s 43rd Annual Meeting and Conference (2022).

Disclosure statement

No potential conflict of interest was reported by the author(s).

Funding

The author(s) reported there is no funding associated with the work featured in this article.

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