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Sustainable Long-term Care Models: Rebuilding Senior Living Environment

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Introduction

We briefly review the major attempts to reform long-term care or senior living environments and what is still lacking in the existing reform models. In our conclusion, we outline possible steps that need to be added to reform efforts to expand the quality of long-term care in the world. In 1979, Ingman, McDonald, and Lusky proposed an alternative geriatric model that would attempt to bring better medical care practice as well as expand the focus of geriatric care to quality geriatric practice in long-term delivery. In 1995, Tim Diamond's volume Making Gray Gold, in dramatic terms, shows the need for reform in Nursing Home Care, showing that reform is still needed. Both accounts call out for the need to reduce unnecessary medical and nursing procedures and expand socio-psychological considerations of the individual resident in long-term care, that is, to develop a focus on the daily existence of residents in facilities.

William Thomas, with his two models - the Eden Alternative and the Green House Model provide details on how to reduce the heavy focus on the biological function of residents found in the traditional nursing home significantly above all other considerations. The wellspring model focuses more on better-trained staff than the overall environment. As applied to the long-term care of dementia patients, the Montessori method brings focus to the environment of residents.

It is important to remember that reforms were and are needed in long-term care medicine and administrations in the last fifty years. Medicine and related fields had ignored long-term care or care of the aged as a special focus. Physicians were pessimistic about what was possible in the area. In 1970, medical schools were beginning to tackle the void in training, and they began to recruit geriatric practitioners or specialists from abroad to reform medical education. Similar, the administration or management of nursing homes and senior housing was not a particular area requiring serious university training in the 1970s. Thus, in the 1970s, long-term care had inadequate training to become an administrator of long-term care facilities. Nursing care was often handled by professionals moving toward retirement in many locations across the US. While we have made some critical educational reforms that have improved both management and clinical practice in long-

term care facilities, more reform is still very much needed.

The Eden Alternative

The Eden Alternative is a philosophy of care for older adults that aim to eliminate the negative emotional states and rebuild a meaningful life for residents and the staff in long-term care settings (Thomas, 2006). It was established in the 1990s by Dr. William Thomas, a Harvard-educated physician. He identified that loneliness, depression, and social isolation account for most suffering among residents in long-term care facilities. The concept Dr. Thomas envisioned was to improve the quality of life for people living and working in long-term care facilities by enhancing seven primary well-being domains: identity, growth, autonomy, security, connectedness, meaning, and joy (The Eden Alternative, 2020).

Implementing the Eden Model

One feature to be implemented Eden Model in long-term care (LTC) facilities are maintaining residents' well-being. The second one is to ensure a homelike environment and resident-centered care. It is imperative to focus on the quality of life rather than the quality of health (Wilby et al., 2016). In general, LTC facilities offered rigid schedules with limited freedom for the residents. This phenomenon causes family members stress and anxiety about their loved ones living in the facility (Johnson et al., 2004). The Eden in the LTC setting should be achieved by integrating children, animals, and plants (Brownie, 2011). Although most LTC facilities focus on medical issues and are effective in physical care, the care of emotional and psychological well-being is not the top priority (Wilby et al., 2016). The change of culture in care should address these emotional and psychological issues by implementing Eden in the facilities that tackle loneliness, helplessness, and boredom. A few approaches to be considered are person-centered approaches, residents being the decision-makers (Zimmerman & Cohen, 2010), and genuine human caring (Thomas, 2004), making the Eden philosophy dive deep into the lives of elders. Implementing the Eden concept requires thorough knowledge of residents` life goals and preferences for the best possible treatment. Thus, this philosophy will honor the elderly and the people responsible for their well-being and make them the authority in their life decisions, yielding fruitful results (Thomas, 2004).

To successfully implement the Eden model, it is essential to have good leadership and effective management. In addition to these qualities, teamwork, effective communication systems, and proper investment in educating and training the appropriate staff are pillars for successful implementation. Staff who are responsible for taking care of the elderly in facilities with Eden must be knowledgeable about how to take care of pets and animals as well (Brownie, 2011). Thus, the significant reforms needed for implementing Eden's concepts of the homelike environment are organizational commitment, and people who are implementing must have the concept-driven deeper inside (Thomas, 2004). "Edenizing" a home takes, on average, two years. It is suggestive not to rush the process as this change includes changing management philosophy and restructuring the physical environment. For

a successful adaptation, there must be collaboration, flexibility, and mutual respect among administration, staff, and residents (Holzer, 2007).

Positive Impacts and Challenges

In general, the turnover among the staff is around 70% per year in the caring facilities. On average, the Eden model somehow resolves these issues by giving consistent assignments to caregivers and involving them in decision-making care planning (Holzer, 2007). This concept of culture change shifts the control from managers to residents. The transfer of power promotes independence and individuality in the framework for a strong caregiving relationship (Holzer, 2007). The average satisfaction rate for traditional skilled nursing facilities in the Rochester region of New York is 74%. After implementing Eden, the survey has resulted in a 100% satisfaction rate from residents and their families in the same area. They attribute this satisfaction to their small home care culture based on the Eden Alternative philosophies (Galiana & Haseltine, 2019). In addition to these positive outcomes, there are significant health outcomes: 45% increase in family satisfaction, 51.6% reduction in psychotic medication, and 25% reduction in skin tears (Galiana & Haseltine, 2019)

Dr. Thomas has identified the following barriers to implementing the change in the care facility settings. 1. Uninterested administration in adapting to the culture change, 2. Fear of negative feedback in the surveys of their facility and increased workload for the staff, and 3. Resistance to change (Holzer, 2007) from traditional settings. However, the Eden model is an initiative to improve the quality of life and well-being of the adult population (Arai & Zarit, 2011; Wilby et al., 2016). This model has given promising results in decreasing loneliness, boredom, hospital readmission, and reducing taking psychiatric medication (McAllister & Beaty, 2016). Future research needs to provide more evidence to encourage health providers to adopt the Eden model.

Wellspring Model

Wellspring Model was initiated in Wisconsin by eleven allied non-profit long-term care facilities in 1994, fully put into practice in 1998, and became part of the Eden Alternative in 2012 (Peterson, 2012). The model is also named Wellspring Innovation Solutions. It aims to improve care quality and reduce high staff turnover rates to promote the well-being of nursing home residents. The core elements for quality improvements in the model include: (a) the alliance of Wellspring, (b) clinical training modules, (c) the Geriatric nurse practitioner (GNP), (d) Wellspring coordinator, (e) care resource teams, (f) data collection and analysis, and (g) management philosophy.

The alliance supports the Wellspring model, unifying various facilities with minimal conflict and distinction. It makes practical functions related to higher performance and cost-savings possible among each membered facility. It also establishes an open forum for consultation to improve quality care in each facility.

The clinical training modules are described as "best practices." Those modules contain the newest clinical knowledge and relative cases. All facilities are required to send staff from various levels to attend each module. With updated knowledge and case studies, participants

will learn to practice physical assessment, incontinence care, nutrition, skincare, restraint reduction, injury prevention, behavior management, and restorative care. Then, those participants are expected to lecture what they learned in the clinical training modules to their co-workers back at the facility. Because of those, it is considered a foundation of the Wellspring model.

Each attendant's clinical training modules are instructed via the nursing practitioner in the Wellspring model. As educators, they ensure all the required knowledge and practice can be delivered to those attendants from each level. Besides that, they have responsibilities of visiting each membered facility once a season to investigate the implementation process of the Wellspring model, helping coordinators and directors of nurses establish quarterly conventions, and responding administrators.

The coordinator is described by Stone et al. (2002) as "the single most important contributor to the model's successful implementation and ongoing operation." The individual in each facility has several roles to play: cooperating care resource teams, facilitating the work between line staff and management, serving as a bridge between the facility and Wellspring alliance when participating in the quarterly meetings among each member facility, and collecting and reporting the data of facility (Reinhard and Stone, 2001).

Each member facility has its care resource teams, combined with staff or experts from different levels or disciplines, such as certificated nurse assistants (CNAs), registered nurses (RNs), front-line workers, and others. All members of the teams voluntarily join in, and a team leader may be RN. The teams have a capacity for self-directing.

The results of data collection and analysis reflect the efficiency of interventions. The goal of the model is to improve residents' quality of care. However, it's impossible to test the unmeasurable "quality." Hence, facilities can measure the quality among residents by using data such as fall times, frequency of incontinent episodes, and weight loss. Each member facility has responsibilities of completing data entry and submitting those to the expert in charge of analyzing data and reporting the results to the director of nursing or coordinator during the quarterly meetings.

The management philosophy is to empower staff, especially front-line workers, to improve care quality and reduce high staff turnover rates to promote nursing home residents' well-being. During the period, front-line staff learn new clinical care quality skills, collaborate with co-workers from different levels in the facility, and have the authority to make decisions in the prevailing circumstance.

Positive results and limitations

The studies by Stone (2002) evaluated the Wellspring eleven members and the non-Wellspring facilities in Wisconsin. In the pre-evaluation, the average number of deficiencies between the Wellspring and non-Wellspring facilities was 1.9 and 3.0, respectively. As the Wellspring model was applied in the membered facilities, the average number of deficiencies dropped 1.1 in the post-evaluation, compared to the 0.4 decline among the non-Wellspring facilities. The Wellspring facilities with zero deficiencies increased from 35.1% in the pre-evaluation to 63.6% in the post-

evaluation. Employee outcomes were measured through retention and turnover rates. The overall retention rate among the Wellspring facilities increased from 70% in 1995 to 76% in 1999. Of those occupations, the retention rate of the RNs had the most significant increase, from 64% to 82%.

According to the analysis of each implementation's phase and the current articles relevant to nursing home models investigation, the limitations of the model are summarized into three perspectives: (a) limitations of implementations within the facilities; (b) lack of specificity to aid in outcomes evaluation (Hartmann et al., 2013), and (c) shortage of efficient assessment.

GreenHouse

Dr. William H. Thomas proposed the GreenHouse (GH) model concept during his career promoting Eden Alternative, founded in 1994. The GH model was designed for a smaller group than traditional nursing facilities; it usually accommodates about 7 to 10 older adults.

The residents in GH facilities must have private rooms with full bathrooms. To minimize the medical atmosphere in those facilities, the GH model intends to avoid medical signs in visible areas. In addition, typical GH facilities have no visible nurse stations, medication carts, or treatment carts. The GH models intend to provide a meaningful experience for older adults even with functional limitations. For example, the height of furniture could be accommodated to fit better older adults who use wheelchairs. The activities in the GH model could be highly customized for older adults with disabilities, such as audiobooks for those with vision impairment or adaptive visiting hours for residents with needs for companionship.

The GH model could be adopted in most nursing facilities, including nursing homes, caring agencies, managed care organizations, etc. Administration in the GH model aims to reduce the bureaucracy and improve the staff's working environment. Shahbaz (new role in Green House, replacing nurse assistants and cross-trained housekeeping staff) are expected to better understand their residents as people rather than patients who seek treatment. The tasks of Shahbazim (Caregivers) are to empower the residents to achieve the lives they would like to have despite their functional limitations and to achieve a level of quality of life. The organizational goals of GH should be better staff presence and less turnover. Notably, the overall outcomes of GH are no different from traditional nursing facilities. However, the GH model uses a more person-centered model with an underlying social model, which sees the older adults living in their facilities more as residents than clients or patients.

The program evaluation for the GH model returned somewhat mixed results. Family satisfaction, lower resident depression rates, and lower levels of social isolation or helplessness have been reported to improve through many studies (Bergman-Evans, 2004; Kane, Lum, Culter, Degenholtz, & Yu, 2007; Lum, Kane, Cutler, & Yu, 2008). However, issues have also been reported, including nutritional issues, risk of falls, and higher staff turnover (Bergman-Evans, 2004). The mixed results in studies reveal a consensus that the implementation of the GH should be further discussed and need more evidence regarding the sense of home, self-

management, and the nature of nursing facilities. One of the evaluation programs also reported an interesting finding in which the residents of a GH site reported increased social engagement compared to traditional nursing facilities. This study also reported increased depressive symptoms among residents (Yoon, Brown, Bowers, Sharkey, and Horn, 2015).

One challenge of implementing the GH model is the internal education and training of staff. Although GH models encourage each center to have an educator in charge of "Core Team Education," including training regarding supervision, partnership, and peer network, studies have documented that the GH model's implementation still needs guidance with details. The cost of providing care is another crucial issue in the implementation of GH models. For example, the wages of CNAs in GH centers were reported to be remained low while the workloads have been increased. Bishop (2014) noted that the wage contributes to successful performance and service outcomes. Logically, increases in wages could significantly increase costs and pose substantial challenges in making profits. Besides wages, the construction cost can also be high in GH implementations. Future tasks should focus on developing step-by-step guidance for facility construction, hardware designing, training and preparation of staff and nurses, and the conversion from institution to person-centered facilities.

Montessori Methods

The Montessori approach is a person-centered, nonpharmacological intervention. It is a pedagogical method created by the Italian educator Maria Montessori. It was first applied to children with intellectual disabilities to improve their general abilities by exercising their large muscles and fine motor movements of the hands (Raghuraman & Tischler, 2021). The approach was later applied for the first time in dementia patient care by the American medical scientist Camp et al. (1997). The Montessori method has three core elements: a prepared environment, activity materials, and a care facilitator. The Montessori approach encourages dementia patients to participate in meaningful activities that match their existing abilities in a prepared environment.

The Montessori activities are created and presented using the following three steps. First, question why the person with dementia behaves in certain ways, such as apathetic, melancholic, frustrated, or repetitive behaviors (Elliot, 2011). Second, creation of the Montessori activity by: Considering the needs, interests, skills and abilities of the person to design meaningful activities that will support independence; Removing unnecessary markings and clutter to ensure materials can be clearly seen and are easily recognizable; ensuring the activity is error-free so that the focus is on the process of the activity, rather than an outcome; and Finally, present the Montessori activity by: Preparing the environment with a choice of two activities; setting up the Room by removing any distractions and arranging seating; Extending an invitation for the person to participate in an activity with you; Showing what the activity comprises by demonstrating the activity step-by-step using as few words as possible and then suggesting the person try the activity; focus is on enjoying it and offering assistance if necessary; modifying the activity to suit the

person's needs, interests, skills and abilities in that moment; Thanking the person for participating in the activity and asking if he or she would like to do it again sometime (Elliot, 2011).

The research revealed many positive outcomes identified in the (Re-)Connecting People and Passions, Improving Residents' Quality of Life, and Montessori activities also facilitated meaningful family-resident connections, which improved their relationships. After the intervention, the Montessori group significantly reduced the frequency and disruptiveness of verbal aggressive and physically aggressive behaviors.

Participants cited the lack of Montessori knowledge, understanding, and evidence, along with the fear of perceived infantilization of care recipients. Barriers to implementation in the current study also included a lack of staff involvement. The direct care workforce shortage in healthcare's current and other long-term care settings can inadvertently impact the implementation of any well-intended intervention.

There is an urgent need to evaluate nonpharmacological approaches to dementia care. There is initial evidence from various Western settings to suggest that Montessori can produce positive outcomes and manage adverse outcomes for people with dementia. Yet, there remain gaps in knowledge and research regarding a uniform understanding of Montessori, its processes, attributable outcomes, economic value, training, and development. It is anticipated that the findings from studies will support further research efforts. The results should lead to the development of culturally relevant Montessori, including training and implementation to guide future practice globally.

Conclusion

In our conclusion, we will focus on the relationship between the residents and their participation in independent living and assisted living settings in our final comments. Perhaps, continuing care retirement communities (CCRC) offer good locations to promote some of the aforementioned reforms. Often, these communities have 'life enrichment coordinators' that lead the charge to bring a rich social life to their settings. Some are quite creative. The next step is fully engaging the residents in partnership with the live enrichment coordinator to expand the social life of their communities. Sometimes this involves formal volunteer corps to assist the coordinator in developing the variety of activities offered in a particular setting. This relates to the Montessori model to engage dementia patients in their care. This involves some power-sharing of tasks or works in the daily life of a community. This will require some training and leadership from the administrators who may not understand the purpose of such a reform.

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