Quality of care and quality of life in dementia care: Is it time to rebalance ?

"This submission looks at the issue of 'persistent under-achieving Quality of Life' through the lens of the three main psychosocial needs: 'Belonging,' 'Occupation,' and 'Self-Identity.'

Our priorities in Long Term Care (LTC) and dementia care over the past few decades have focused primarily on improving Quality of Care (QOC). Much of this has been through the Culture Change/Person-Centred Movement, from the medical model of care to a more social and holistic approach with a focus on Quality of Life (QOL).

This paper looks at the issue of 'persistent, under-achieving QOL.

Improving QOC and QOL

A good part of the Culture Change movement has focused on increasing QOC and QOL by improving the physical environment of LTC facilities to better support the needs of **People With Dementia (PWD)**.

Many environmental factors have been shown to improve QOL, such as wayfinding, simple layout, single rooms, accessibility, visual access, variety of amenities, improved lighting, noise mitigation, gardens, etc. (Marquardt, 2014; Fleming, 2010).

However, there continues to be a reality gap in implementing Personcentred Care even with improved physical designs.

Higher-order domains poorly addressed

We have learned that environmental improvements alone cannot guarantee improved QOL: the best physical environment can be undermined if the management and social organization do not work together with the physical environment (Davis, et al, 2009).

By William (Bill) Benbow

Studies still show that nursing home residents spend the majority of their waking hours uninvolved and bored.

Lack of activity

A recent UK study measured QOL in six care homes and found care home residents' days are characterized by a lack of activity. Their basic physical needs were well met, but higher-order domains such as social interaction, occupation, and control over daily life were poorly addressed.

The study concluded that low levels of activity were due to insufficient funding and working practices in care homes. The priority in many care homes is to ensure that residents are washed, dressed, toileted and fed. QOC is narrowly defined as meeting residents' basic physical and health needs. (Smith, 2018).

QOC and QOL clarified

Perhaps we need to clarify what we mean by QOC/QOL in terms of setting expectations for the Care Environment. L.E. Faulk proposed a conceptual basis for understanding QOL based on human needs in general by pointing out that what distinguishes residents from others is not that they have different needs, but that they require more assistance in meeting these needs.

Physiological needs vs. Psychosocial needs

Faulk used the well known model of 'basic human needs' that was proposed by Abraham Maslow in 1943 - which is based on a hierarchy of needs illustrated by a pyramid. See next page.

Lower level 'physiological' and 'safety' needs form the base, with higher level psychosocial needs of 'Belonging', 'Occupation', and 'Self-identity' above. The highest need Maslow described as 'self-actualization' or 'creativity'.

Mistaken interpretation

A common mistaken interpretation of Maslow's Hierarchy is that the lower physical and safety needs must be fully satisfied before the higher psychosocial needs can be addressed.

The danger with this concept is that the higher-level needs may never get the attention required if meeting the lower-level needs monopolizes resources.

Maslow himself suggested that human needs are not quite so fixed and rigid, but are fluid and can be present in a person simultaneously.

Normally most people are partially satisfied and partially unsatisfied to varying degrees in most of their needs. Individual needs are not exclusive, or single determinants of behaviour. (Ventegodt, S., 2003).

Modified pyramid

This author would like to suggest a pyramid of LTC needs based on Maslow, but modified to illustrate QOC and QOL. (See Pyramid of LTC Residents' Needs - next page).

For purposes of understanding our current dilemma, I have chosen to label

the lower needs as QOC based on our historical roots in the medical model which still predominates in terms of prioritization of staffing and funding. 'Health' is added to QOC domains to reflect the reality of LTC where admission is based on Care Requirements.

QOL Needs are designated **Belong**ing, Occupation, and Self-Identity, and are based on Moyle's Australian study wherein PWD identified the three main themes of Quality of Life:

- 'Importance of Social Interaction' (Belonging);
- 'Having something to do' (Occupation); and
- 'Maintaining Independence' (Self-Identity).

These themes occur frequently in the literature descriptions of QOL.

Basic needs and illness

In Maslow's view, if a man is chronically thwarted in any of his basic needs, he is a sick man. Much of the behaviour that we view as caused by the disease of dementia, such as passivity and agitation, may actually be responsive behaviour due to deprivation of basic QOL needs (Maslow, A., 1943).

Areum Han, in a literature review, found that PWD, and their caregivers,

report the most common unmet needs for PWD as daytime activities, social contact and psychological distress. He described three motivation themes as: • 'Being connected to others' (social

activities),

• 'Being connected to the environment' (physical activities), and

• 'Being connected to self' (personal identity activities (Han, A., et al., 2015).

Netten studied 'social care related QOL' in 83 English care homes and found that basic aspects, such as cleanliness, safety, accommodation and meals, were well met, but that there was considerable unmet need in terms of Maslow's higher order in items such as social participation, occupation, and control over daily life (Netten, 2012).

Significant challenges

Moyle has found that one of the most significant challenges in meeting these psychosocial needs and improving QOL is the serious understaffing of LTC facilities which makes delivering person-centred care extremely difficult (Moyle, *Canadian Nursing Home*, 2015); and personal communication).

A Belgian study found that residents admitted to LTC facilities lost activities such as Meaningful Activities of Daily Living (MADL) because caregivers were most actively involved in doing and performing caring activities, but not so involved in guiding and tailoring MADL in relation to the residents' higher order needs of identity and selffulfillment (de Vriendt, 2018).

A Norwegian researcher reported from her literature search that staff meet the physical needs of residents, while mental, social, and occupational needs are only met if time is available (Holthe, et al., 2007). Clearly, then a critical underlying problem is staffing and funding shortages which have driven LTC systems to focus on the QOC needs to the detriment of QOL needs.

Inverted priorities

However, we are in danger of unfairly scapegoating LTC providers and staff if, as a society, we fail to clarify and agree upon what is an acceptable QOL for dementia residents, particularly in terms of psychosocial needs.

It may be that in LTC our priorities are still inverted. Kane pointed out that LTC policies and practices are flawed: "Embedded in most of our rules and regulations is the idea that LTC should aspire to the best possible quality of life as is consistent with health and safety.



Volume 30, Number 2, June/July, 2019

But ordinary people may prefer the best health and safety outcomes possible that are consistent with a meaningful quality of life" (Kane, 2001).

A holistic understanding

A couple of caveats: we don't really want to pit QOC against QOL, or suggest a rigid hierarchy where the lower needs must be fulfilled before the higher needs can be attended to.

A preferred approach is to view the needs holistically, with an understanding that prioritizing the physiological, safety, and health needs over the psychosocial needs, is problematic.

Although the preferred holistic approach is to include higher needs when meeting lower order needs, for this analysis it is helpful to define the three QOL psychosocial domains:

- Belonging
- Occupation, and
- Self-Identity...

in order to explore ways of addressing them from the research literature.

However, before addressing these psychosocial needs for PWD, it is necessary to be aware of their 'shrunken world' and apparent withdrawal into themselves.

Their 'shrunken world'

An English study of nine dementia care settings found extreme lassitude and passivity, particularly in persons in the severe stage of dementia.

The researcher, an Occupational Therapist, concluded that, for the severely impaired person, the environment has shrunk to envelop her in a kind of plastic bubble which is about 3 to 4 feet in diameter.

For the person inside this bubble, the environment, including conversations and interactions, are distorted and muffled. She (the researcher) suggests that this shrunken environment may be why the general physical and social environments have less bearing upon the person with dementia's psychological state. To be effective, caregivers have to learn to penetrate the 'bubble' and stay there long enough to discover approaches to engage the person.

She points out that it is not usually a problem to sustain interaction during a task-oriented activity. The difficulty of engagement with a severely impaired PWD occurs when there is no specific task. She suggests we need to learn to just 'be' with residents and enrich their shrunken environment in the context of our social interactions with them (**Perrin, Tessa, 1997**).

1. Belonging

"Belonging," or a version of this social need, appears in most lists of QOL domains in the research literature. A systematic review of well-being and life satisfaction found greater social engagement, including better quality relationships with the caregiver, were associated with better QOL (Martyr, et al., 2018).

An Irish study, by occupational therapists, measured social engagement in two nursing homes - before and after conversion to a 'Household Model.'

Prior to the conversion they found that residents did not engage in any social interaction or interactive occupation for most of the time spent in their main lounge.

The residents suffered 'Communication Collapse,' seemingly unable to initiate conversations; thus, they were completely dependent upon staff for social interaction.

The researchers recommend the need for Specialized Staff, such as a designated Homemaker. This additional allocated staff person was able to monitor, engage and encourage residents in simple household tasks and dramatically increase their social interaction (Morgan-Brown, 2013, 2016).

The 'WHELD' program

In the Spring of 2018, King's College, at the the University of Exeter in the UK, reported on a large scale randomized controlled trial, part of the 'Improving Wellbeing and Health for People with Dementia' (WHELD) program. This controlled trial was summarized in Canadian Nursing Home in its 2018 Spring issue.

The study involved 800 PWD across 69 care homes. Essentially the study found that increasing the amount of social interaction for PWD for just 60 minutes a week improved QOL and reduced agitation and aggression (Ballard, February 6, 2018).

Designated Champions

A critical element of the Intervention Program was the training of two 'care staff champions' at each home to lead the staff in getting to know each resident and elicit their interests and preferences and involve them in decisions around their care.

Despite the additional cost of 'Designated Champions', researchers found that residents receiving the intervention showed a significant health and social care cost advantage. Drilling down into the original article provides more detail on this care staff champion model.

Using a needs-based model, two lead staff champions, in each home, received training in person-centred care, antipsychotic medication review, and social interaction. They received ongoing coaching and supervision from a research therapist for nine months. The WHELD intervention actually includes social interactions with pleasant activities.

An earlier WHELD study by Ballard, developed a manual for the social intervention to elicit and plan social interactions for each resident in individual and small group activities based on at least three sessions for a total of 60 minutes per week.

Staff found that the person-centred approach was difficult to operationalize without this built-in structure of timebased, targeted, individualized, social activity (Ballard, 2016).

Helping residents meet their basic human need for a 'Sense of Belonging' operationalizes care as friendship, family, and love, and is a fundamental component of QOL.

2. Occupation

'Occupation,' as a fundamental human need, can be defined as 'what occupies one: a means of passing one's time.' Freud defined mental health as the ability to love and to work. Lack of meaningful, pleasurable occupation often correlates with depression.

A UK study suggests that over onethird of nursing home residents suffer clinically significant depression and this is usually related to lack of occupation [activities] (Mozley, 2001).

Another UK study notes the importance of differentiating stages of dementia and performance deterioration in analyzing occupation and activities.

Specifically, certain activities of daily living (ADL) deteriorate more quickly than others. Toileting, transfers, and feeding are less impaired across the different stages than bathing, dressing and continence, which are poor from the early stage onwards. This highlights the importance of determining the individual's abilities as well as preferences and interests when supporting engagement in activities (Giebel, et al., 2015).

'Enriched Opportunities Program'

An important contributor to the referenced WHELD Program is Dawn Brooker, the developer of a sustainable activity-based model, the 'Enriched Opportunities Program.'

This model requires five key elements:

- specialized staff
- individualized assessment
- an activity and occupation program
- staff training, and
- management leadership.

'Locksmith'

The main element is the 'senior staff' role designated as 'Locksmith,' whose main task is to ensure residents with dementia reach their potential for wellbeing. The title 'Locksmith' reflects their responsibility to discover and develop 'keys' or activities, that can 'unlock' this potential for improved QOL in residents; they also lead in staff training and in monitoring the Program.

The 'keys' are based on an assessment of the resident's health, capacities, personality, life history, and interests.

All staff contribute input through 'magic moment cards' which record 'triggers' that staff have spotted and that enhance an individual's engagement. These triggers are investigated by the 'Locksmith' and turned into a 'key-card' which detail ways that have been found to work consistently with individuals.

'Life-Boxes' are developed to contain objects and pictures that have meaning to individual participants.

An important element in keeping the 'Enriched Opportunities Program' operable is to have a specific 'Sponsor' in the management of the organization. Staff time-constraints were also addressed with family and volunteer support for additional one-on-one time with residents.

Higher levels of well-being

A cluster-randomized controlled trial of the 'Enriched Opportunities Program' found that significant higher levels of well-being were achieved and, despite the added cost of the Locksmiths. the program was, overall, cost effective - particularly in terms of reduced hospital stays.

The 'Enriched Opportunities Program' over the past 10 years, has been expanded to approximately 20 retirement villages in England. 'Locksmiths' are trained at Worcester University and receive ongoing refresher classes.

The Program Director emphasizes how important it is to protect the specialist role of the 'Locksmith' as it can easily be diluted with under-funding and staffing pressures (Personal communication, Michael Spellman: www.extracare.org.uk).

Crucial factors

A Swedish study identified and analyzed 'crucial factors' in the environment, or 'keys,' such as familiar surroundings or persons that facilitate everyday occupations.

When these personal *keys* 'fit', they provided support for 'occupational' opportunities that meet individual needs.

These 'keys' were 'double edged' in that the loss of these familiar enablers could hinder engagement. Hence, the importance of identifying the 'keys' in order to maintain them or adjust to the losses. This study emphasized maintaining continuity with residents' ordinary life activities, identity and preferences (Ohman, Ann & Nygard, Louise, 2005).

Dementia-compromised behaviour

An interesting resource for individual and small group activities has been developed by Linda Buettner and Kathleen Byrne Colling in a 'Simple Pleasures Project'. (See box - next page)

The research team developed 30 handmade 'recreational items' for recreation therapy to address 'need-driven dementia-compromised behaviours.'

Ready access to these sensori-motor 'recreational items' increased the time spent in purposeful activities and decreased agitated behaviours. Staff, family and volunteers made the inexpensive recreational items and shared them in interactions with residents. Items were targeted to specific stages of the dementia disease process. A training manual was produced for making and using the recreational items.

These items held the attention of dementia residents from 20 to 40 minutes, which some found useful for lower functioning residents.

Simple Pleasure Activities

Recreational items	Behaviour item used for
Activity apron	· Repetitive motor pattern
Stuffed butterfly or fish	·Verbal repetitiveness
Cart for wandering	··Wandering and taking med cart
Electronic busy box	· · Passivity
Fishing box	· Hand restlessness
Fleece-covered	··Screaming
Hot water bottle	· · Hand restlessness
Flower arranging	Passivity
Electronic busy box	· · Wandering and restlessness
Hang the laundry	··Sad, weepy, upset
Home decorator books	· · Verbal agitation
Latch box-doors	· Wandering, upset, hand restlessness
Look inside purse	· · Difficulty making needs known
Message magnets	-General agitation and anxiety
Muffs	·Motor restlessness
Rings on hooks game	· Passivity and hand restlessness
Sewing cards	· Anxiety and hand restlessness
Squeezies	· · Wandering and trying to leave
Table ball game	·Boredom, isolation, hand
Tablecloth activities	· ·restlessness
Tetherball game	·· Verbal or motor repetitiveness
Vests/sensory	· Verbal or motor repetitiveness
Wave machines	·Repetitive hand movements

Kathleen Byrne Colling and Linda Buettner "Simple Pleasures: Interventions from the need-driven dementia-compromised behaviour model," *Jour. of Gerontological Nursing*, Oct, 2002.

Some of the items were also found to reduce wandering, vocalizations and passivity (Buettner, 1999); (Colling and Buettner, 2002).

'Sundowning' Importance of family/friends

A Director of Resident Care of a Victoria, B.C. dementia care facility reiterated the limited time staff have for 1:1 interventions and the importance of family and friends:

"So often the best intervention for a PWD experiencing distress is 1:1 support. Where there is a family member who is willing and able to come and be with their resident during the sometimes daily episodes of afternoon anxiety and distress behaviours (often referred to as Sundowning), we may be able to avoid the use of sedating meds.

"Some family members think this work is entirely the responsibility of the facility staff... but it is a great benefit when family members come to visit at times when they know the resident will benefit the most from their presence. Dementia care goes much more smoothly when we are able to partner with families" (Fiona Sudbury, personal communication).

Targeting agitated behaviour

A Controlled Trial, involving individualized intervention in twelve nursing homes in Maryland, resulted in statistically significant decreases in resident agitation and improved QOL.

Interventions targeted unmet needs by analyzing a resident's cognitive, physical and sensory abilities, and lifelong habits and roles in order to understand the etiology of the agitated behaviour.

Data was collected from staff and family, and through observations to suggest personalized interventions.

Examples used were individualized music, family videotapes and pictures, illustrated magazines, large print books, board games, puzzles, plush toys, sorting cards with pictures and words, stress balls, baby dolls, massages, pain treatment, outdoor gardens, perfume, a 'busy apron', building blocks, and Play-Doh (Cohen-Mansfield, 2007).

Increasing engagement

Another American study used a 'check-in' method to increase engagement in daily activities in moderate to severe dementia residents.' Care aids were taught 'check-in techniques:' to make personal contact with each resident at least every 15 minutes, to provide praise for engagement, and, if the resident was not engaged, to offer a choice of at least two activities.

Findings indicated increased engagement in activities of approximately 90%, and the variety of activities increased from seven basic living activities, to an additional twenty, including planting flowers, caring for pets, setting the table, playing the organ, and making crafts (Engelman, 1999).

Montessori methodology

In the 1990s, gerontologist, Dr. Cameron Camp developed Montessori Methods for engaging dementia residents in activities and, since 2012, Gail Elliot, formerly of McMaster University, has introduced a broadened version of this approach to LTC homes across Canada - and other countries such as Australia and Hong Kong.

Though based on Montessori principles, Elliot calls her program 'DementiAbility' to stress that it is a more holistic approach with additional research from diverse disciplines.

Montessori activities use modeling, task breakdown to small steps, external cues and guided repetition to support routines and skills that are based on procedural memory and are more accessible to PWD than complex cognitive processing.

Elliot has added what she calls a WOW model that focuses on the whole person and their environment. This model looks at 'Who' the person is, past and present (the first W); connects this through 'Observations' and knowledge about dementia (the O); which together contribute to 'What to do' (the second W).

Elliot has found that activities work best when they are on a one-to-one basis and are created to match the person's unique needs and history (Elliot, personal communication).

When interventions work best

A randomized crossover trial in Australia studied the effect of Montessoribased activities on agitation, affect and engagement. A control feature was used to determine if the personalized one-on-one activities were more effective than simple social interaction with general conversation. Results confirmed that interventions work best when tailored to participants' preferences and life history.

During both intervention and control sessions, agitation decreased by nearly 50%, and affect and engagement improved. This demonstrated that even a simple social contact intervention with little specialized training or resources assisted in calming agitated residents. However, during the Montessori intervention there was significantly more positive and interested affect and engagement.

Another interesting finding was that folks who had lost fluency in English showed a much greater decrease in agitation during the Montessori sessions. This is likely because the approach is not reliant on language, but makes good use of external cues to compensate for cognitive deficits (van der Ploeg, 2013).

Implementation challenges

A recent study examined the challenges faced in implementing a Montessori Program and noted that limited government funding affected availability of staff, training and program materials. Also, government regulations and historical medical practices and priorities place recreation staff lower on the hierarchy - which can make it difficult to introduce such a non-medical program.

Trained volunteers were particularly helpful in facilitating more one-toone activities. Some families helped with the cost of activity materials. Resistance diminished when staff saw residents become more engaged in activities and daily life and with fewer responsive behaviours.

Management support was essential to effect policy and practices such as prioritizing and funding training, providing materials, and staff time.

Residents' QOL definitely improved, with residents coming out of their rooms more on their own, engaging in activities and initiating conversation more. Their self-esteem and self-confidence increased (Ducak et al., 2018).

Helping residents meet their basic human need for 'Occupation', operationalizes care as meaningful activity and creativity, and is a major component of 'Quality of Life'.

3. Self-identity

'Self-Identity.' the third basic psychosocial need, is tied to self-worth, dignity, and agency. This is perhaps the most difficult to address in PWD.

In some sense, as the disease of dementia progresses, PWD shift from 'where do I belong' and 'what can I do' to 'who am I' in the most severe stage.

Cohen-Mansfield describes the disease as a frightening shadow that sneaks up and steals portions of their memories, dreams and selves.

She quotes from a diary of a dementia sufferer:

"Every few months I sense that another piece of me is missing - -My life... my self... are falling apart. I can only think half thoughts now. Someday I may wake up and not think at all, not know who I am. Most people expect to die someday,

but whoever expected to lose 'their self' first."

Cohen-Mansfield affirms that some 'social identity' does survive in four domains or roles: family, work, leisure activities, and personal attributes/ achievements, or acquisitions. In her study of two nursing homes in Israel, she advocates discovering and encouraging these aspects of self-identity (Cohen-Mansfield, 2000).

Personal space Personal appearance

An Irish study analyzed QOL for older people living in LTC and emphasized the overall care environment, particularly relationships, activities and maintaining a 'sense of self.' Maintaining this Personal Identity was facilitated by having personal space, such as one's own private room to individualize with belongings such as pictures, furniture, quilts, etc.

Also, maintaining personal appearance is closely related to self-expression and positive self-esteem. Hence, a high value on hairdressing and choosing and wearing onc's own clothes (Murphy, K., 2007).

Autonomy/Agency

Perhaps the most overlooked aspect of self-identity is autonomy or 'agency', which refers to the opportunity to make choices and take action.

A researcher from the UK, Geraldine Boyle, points out that PWD have been assumed to have weak or no agency/autonomy (Boyle, G., 2014). In this study Boyle, distinguishes between 'deliberative capacity' which diminishes through the stages of the disease, and 'creative capacity' for agency, which she identifies as habituated, embodied or emotional agency.

Boyle bemoans the over-emphasis on rationality and the neglect of emotion - which has led to a concept of a divided self with the rational self viewed as superior to the emotional self. This results in emotions and behaviours being seen as symptomatic of the illness - where actually they may be indicative of agency/autonomy - some of which we now refer to as *'responsive behaviours'*.

Constraints on 'agency' (autonomy) can trigger emotional and behavioural responses. Emotionally driven intention is clearly evident - even in the later stages of dementia.

Boyle recommends encouraging and validating 'agency' by offering choices in what to wear or eat or do, and by detecting preferences through non-verbal communication, such as facial expressions or gestures, routines, and rituals. She calls this 'assisted autonomy' (Boyle, 2014).

'Assisted autonomy'

A literature review of shared decision-making for PWD in extended care settings found evidence that people living with cognitive impairment value opportunities to be involved in everyday decisions about their care. Unfortunately, their capacity to share in decision making is often underestimated with staff discouraging independence, depersonalizing and discouraging risk.

The priorities of residents, their interests, abilities and character should guide decision-making. Participating in day-to-day decisions is important in everyday QOL. Sharing in the process is the key, rather than actually making the decision, i.e., being listened to, able to express opinions, and given time to reflect.

Being included also heightens selfesteem, reduces depression and helps to maintain functioning. Eliciting preferences and offering choices, however, does take more staff time (Daly, 2018).

'Talking mats'

A particularly helpful tool to elicit preferences and share in decisions are 'Talking Mats', an innovative program

developed by Joan Murphy of Stirling University in the UK. "Talking Mats" are a low-tech system of picture symbols placed on a mat so that a person can indicate their feelings about two or three options within a topic by placing the chosen image below a visual scale to indicate 'like' or 'dislike.'

Talking Mats are particularly helpful for PWD who have difficulties with conversation, and helps to keep them on track with the visual cues right in front of them. "It even helped me to remember what we were talking about," one resident stated.

The Talking Mats are positive in that they show residents what they can still do and enjoy, rather than focusing on what they can no longer do; and the actual process of using Talking Mats proved to be an enjoyable activity in itself. Findings show that PWD feel more involved in discussions and decision-making around daily living activities (Murphy, J. and Oliver, T., 2013).

Helping residents meet their basic need for 'Self-Identity' operationalizes care as dignity, self-worth, agency and choice and is a key feature in Quality of Life.

Holistic Enrichment Program

Clearly the three basic Psychosocial Needs (autonomy, competence, and relatedness), are interwoven and reinforce one another and are best met as part of an overall care approach.

Fahy has developed a comprehensive 'Holistic Enrichment Program' for LTC facilities based on Maslow's hierarchy of needs which is designed to meet the needs of residents physiological, safety, love/belonging, esteem and selfidentity requirements.

Fahy believes it is imperative to fulfill the needs on 'the entire pyramid: "Holistic quality of care suggests the integration of physical needs with mental and social needs as a caring focus."

Fahyy's manual integrates holistic care through four training modules:

- Motor Skills Enrichment
- Social Enrichment
- Self-Enrichment, and
- Cognitive Enrichment.

Fahy does point out the importance of support through upper management by setting the standard of expectations and through employee performance reviews (Fahy, Chrisann, 2016; Fahy and Hollis-Sawyer, 2018).

A major theme throughout these research articles on meeting psychosocial needs is the importance of involving all staff in a person-centred approach: this includes cleaning and kitchen staff as well as care and activity staff.

All staff need to be encouraged to broaden their activities to include resident participation, particularly *Activities of Daily Living*, such as cleaning, folding laundry, helping with food preparation and assisting with serving.

The more staff can include residents, the more residents will feel that they belong, that this is their home and that they have something to do, and actually still have worth.

Time to rebalance!

QOL and its related 'psychosocial needs of Belonging, Occupation and Self-identity' can be addressed as part of the overall QOC environment.

However, historically, policymakers and regulators have focused more on the physiological safety and health needs in LTC.

It is time to rebalance priorities and give QOL the recognition it deserves. This entails utilizing specialized programs and training and developing indicators, and an enhanced regulatory structure to support management and staff (Murphy, K., 2007).

Health Authorities are beginning to recognize this: some have increased operating funding for direct care staff and associated staff. The Dutch Government, for example, is providing substantial additional provision among their care staff. Some care homes in the Netherlands are already using 'recreational coaches' to develop individual activity plans for residents and training regular care staff to integrate QOL focus into daily activities.

The challenge is to not just rename existing activity staff but actually add and maintain specialized and trained 'Coaches' (Smit, D., 2017).

As Kane asserts, "A good quality of life should be elevated to a priority goal for LTC rather than a pious afterthought to quality of care" (Kane, 2001).

References

• Ballard, C., et al., Impact of antipsychotic review and non-pharmacological intervention on antipsychotic use, *Am. J. Psychiatry*; 173(3), 2016.

• Ballard, C., et al., Dementia Care improved with just one hour of social interaction weekly, *Canadian Nursing Home*; 29(1); March/April, 2018.

• Ballard, C., et al., Impact of personcentred care training and person-centred activities on quality of life, agitation, and antipsychotic use in people with dementia living in nursing homes, *PLOS Medicine*; February 6, 2018.

(https://doi.org/10.1371/journal. pmed.1002500)

• Benbow, William (Bill), Design features for resident engagement and Meaningful Activity, *Canadian Nursing Home*; 25(4); December, 2014.

• Boyle, Geraldine, Recognising the agency of people with dementia, *Disability & Society*; 29(7); 2014.

• Brooker, Dawn, and Woolley, Rosemary, Enriching opportunities for people living with dementia: The development of a blueprint for a sustainable activity-based model, *Aging and Mental Health*; 11(4); 2007.

• Brooker, Dawn, et al., The Enriched Opportunities Programme for people with dementia: A cluster-randomised controlled trial in 10 extra care housing schemes, Aging & Mental Health; 15(8); 2011.

• Buettner, Linda, Simple Pleasures: A multilevel sensorimotor intervention for nursing home residents with dementia, *American Journal of Alzheim*-

er's Disease, January/February, 1999. • Cohen-Mansfield, J., et al., Non-pharmacological Treatment of Agitation, A controlled trial of systematic individualized intervention, Journal of Gerontology; 62A(8); 2007.

• Cohen-Mansfield, J., et al., Selfidentity in older persons suffering from dementia: preliminary results, *Social Science & Medicine*; 51; 2000.

Colling, Kathleen and Buettner, Linda, Simple Pleasures: Interventions from the need-driven dementia-compromised behaviour model, *Journal of Gerontological Nursing*; 28(10); 2002.
Davis, Sandra, et al., Guiding design of dementia friendly environments in residential care settings, *Dementia*; 8(2); 2009.

• Daly, R.L., et al., Shared decisionmaking for people living with dementia in extended care settings: a systematic review, *BMJ Open*, 2018.

• Ducak, K., et al.. Implementing Montessori Methods for Dementia in Ontario long-term care homes: Recreation staff and multidisciplinary consultants' perceptions of policy and practice issues, *Dementia*; 17(1); 2018.

• Elliot, Laura and Elliot, Gail, The DementiAbility Methods, Achieving quality outcomes in dementia care by connecting research to practice, *Canadian Nursing Home*; 29(4); 2018.

• Engelman, K., et al., Increasing Engagement in Daily Activities in older adults with dementia, *Journal of Applied Behavior Analysis*; 32(1); 1999.

• Fahy, Chrisann, Institutionalized Home Care Facilities Enrichment Program Utilizing Maslow's Hierarchy of Needs, Dept. of Psychology, North East Illinois University; 2016.

• Fahy, Chrisann, and Hollis-Sawyer, L., New Holistic Enrichment Program Utilizing Maslow's Hierarchy of Needs Designed for Institutionalized Residential Care Facilities, *OBM Geriatrics*; 2(4); 2018.

• Fleming, R., et al., Long-term care for people with dementia: environmental design guidelines, *International Psychogeriatrics*; 22(7); 2010.

• Gerritsen, D., et al., Finding a useful conceptual basis for enhancing quality of life of nursing home residents, *Qual*-

ity of Life Research; 13; 2004.

• Giebel, C., et al., Activities of daily living and quality life across different stages of dementia: a UK study, Aging & Mental Health; 19(1); 2015.

• Han, Areum, et al, Perspectives of People with Dementia about Meaningful Activities, American Journal of Alzheimer's Disease & Other Dementias; 31(2); 2015.

• Holthe, T., et al., Occupational patterns of people with dementia in residential care: An ethnographic study, *Scandinavian Journal of Occupational Therapy*; 14; 2007.

• Kane, Rosalie, Long-Term Care and a Good Quality of Life: Bringing them closer together, *The Gerontologist*; 41(3); 2001.

• Mantle, J. and Funke-Furber, J., Forgotten Revolution: The Priory Method - A Restorative Care Model for Older Persons; *Trafford Publications, Victoria, B.C.*; 2003.

• Marquardt, G., et al., Impact of the Design of the Built Environment on People with Dementia: An Evidence-Based Review, *Health Environments, Research/Design Journal*; 8(1); 2014.

• Martyr, Anthony, et al., Living well with dementia: a systematic review and correlational meta-analysis of factors associated with quality of life, wellbeing and life satisfaction in people with dementia, *Psychological Medicine*, 2018;

• Maslow, A., A Theory of Human Motivation; *Psychological Review*; 50; p.370-396; 1943. Retrieved online, March, 2019 from *Classics in the History of Psychology*.

• Morgan-Brown, M., Capturing Interactive Occupation and Social Engagement in a Residential Dementia and Mental Health setting, *Geriatrics*; 1(15); 2016.

• Morgan-Brown, M., et al., Engag-

ing life in two Irish nursing home units for people with dementia: Quantitative comparisons before and after implementing household environments, *Aging & Mental Health*; 17(1); 2013. Moyle, W., et al., How LTC residents with dementia envision quality of life, *Canadian Nursing Home*; 26(3); 2015.
Mozley, Caroline G., Exploring connections between occupation and mental health in care homes for older people, *Journal of Occupational Science*; 8(3); p.14-19, November, 2001.

• Murphy, J. and Oliver, T., The use of Talking Mats to support people with dementia and their carers to make decisions together, *Health and Social Care*; 21(2); 2013.

Murphy, K., et al., Quality of life for older people living in long-stay settings in Ireland, J. of Clinical Nursing, 2007.
Netten, A., et al., Quality of life outcomes for residents and quality ratings of care homes: is there a relationship?, Age and Ageing; 41; 2012.

• Ohman, Ann and Nygard, Louise, Meaning and Motives for Engagement in Self-Chosen Daily Life Occupations Among Individuals with Alzheimer's, *Occupation, Participation & Health*: 25(3); 2005.

• Perrin, Tessa, Occupational need in severe dementia: a descriptive study, *Jour. of Advanced Nursing*; 25; 1997.

• Schick, D., Culture change within the long-term care setting as envisioned by the concepts of the Eden Alternative, *Canadian Nursing Home*, Vol. 28(1); March/April, 2017.

• Sirgy, M., A Quality of Life Theory Derived from Maslow's Developmen-

tal Perspective, American Journal of Economies and Sociology; 45(3); 1986. • Smith, N., et al., Being occupied: supporting 'meaningful activity' for older people in England, Ageing & Society; 38; 2018.

• Smit, D., et al., Predictors of activity involvement in dementia care: a cross-sectional study, *BMC Geriatrics*; 2017.

• van der Ploeg, et al., A randomized crossover trial to study effect of personalized, one-to-one interaction using Montessori-based activities on agitation, affect, and engagement in nursing home residents with Dementia, *Internat. Psychogeriatrics*; 25(4); 2013.

• Ventegodt, Soren, Quality of Life Theory III. Maslow Revisited, *The Scientific World Journal*; 3; 2003.

• de Vriendt, P., et al., Enabling meaningful activities and quality of life in LTC facilities. *British Journal Occupational Therapy*; 82(1); 2018.

About the Author

• William Bill Benbow is a planner, development consultant, researcher and writer from Victoria, B.C., with experience and interest in facility functional programming and design guidelines. He has published numerous articles on functional design of nursing homes. Contact: <billbenbow@shaw.ca>. Website: <wabenbow.com/>.

Eating just one cup of blueberries daily improves heart health - UK study

Eating a cup of blueberries a day reduces risk factors for cardiovascular disease according to new research led by the University of East Anglia (UEA) in the UK, and in collaboration with colleagues from Harvard University.

150 grams daily

The findings show that eating 150g of blueberries daily reduces the risk of cardiovascular disease by up to 15%.

The research team from UEA's Nor-

wich Medical School, say that blueberries and other berries should be included in dietary strategies to reduce the risk of cardiovascular disease.

The team set out to see whether eating blueberries had any effect on Metabolic Syndrome - a condition affecting 1/3 of westernized adults, and which comprise at least three of the following risk factors: high blood pressure, high blood sugar, excess waist fat, low levels of 'good cholesterol' and high lev-

els of triglycerides.

Lead researcher, Professor Aedin Cassidy, from UEA's Norwich Medical School, said: "Having Metabolic Syndrome significantly increases the risk of heart disease, stroke and diabetes, and often statins and other medications are prescribed to help control this risk."It's widely recognised that lifestyle changes, including simple changes to food choices, can also help," Cassidy said.

Anthocyanins

"Previous studies," Cassidy says, "have indicated that people who regularly eat blueberries have a reduced risk of developing conditions including T2D and CVD. This may be because blueberries are high in natural compounds called anthocyanins.

The research team investigated the effects of eating blueberries daily in 138 overweight and obese people, aged between 50 and 75, with Metabolic Syndrome. Durng the six-month study, they looked at the benefits of eating 150 gram portions (one cup) compared to 75 gram portions (half a cup). Participants consumed the blueberries in freeze-dried form, with a placebo group given a purple-coloured alternative of artificial colours and flavourings.

12-15% reduced risk

Co-lead, Dr. Peter Curtis, said: "We found that eating one cup of blueberries per day resulted in sustained improvements in vascular function and arterial stiffness - making enough of a difference to reduce the risk of CVD by between 12 and 15 per cent.

Reference:

• Peter Curtis, Aedín Cassidy, et al., Blueberries improve biomarkers of cardio-metabolic function in participants with metabolic syndromel, *American Journal of Clinical Nutrition*; Vol. 109(6); May, 2019.

DOI: 10.1093/ajcn/nqy380