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ABSTRACT

This paper discusses a four-dimensional model of *mindful sustainable aging* (MSA) in the four biological, psychological, social, spiritual dimensions. The model is made up of eight components, activeness, bodily awareness, change processes, vigorousness, dynamism, mental alertness, social support and spiritual support. Modern western and traditional Buddhist notions of mindfulness/sati, and their utility in terms of improving the physical, mental and social lives of seniors, are explored, the uniqueness of MSA being in the provision of a construct that is more integrated, holistic, and multi-faceted than other current gerontological theories. This paper, by drawing attention to the four-dimensional MSA model, therefore attempts to demonstrate how mindfulness practices support these four dimensions (i.e., biological, psychological, social and spiritual dimensions).

KEYWORDS

Mindfulness; aging; psychosocial theories; psychodynamic theories; concept analysis

Introduction

We all must face the psychological challenge of growing old[1] and confronting the end of life. That our lives come to an end and that our physical life span is limited, is undeniable. But how we come to terms with growing old and the end of life varies. Some respond to this final phase of life with denial, fear and anxiety. For others, the aging process is a sustaining experience that fosters maturity, productivity and meaningfulness (Nilsson et al., 2015). Fromm (1966) noted that old age is certainly a great challenge, but also a great opportunity: "It could be the best time [one] ever had because [one] is freed from the task of making a living, [one] is freed from the anxieties of losing a job, [one] is freed from the need to please a superior in order to be promoted; [one] is really a free [person] – almost as free as we are in our sleep when we are, as our dreams show, so much more creative than we ever thought we could be." Erikson, another notable thinker, informs us that life's transitions can also culminate in the successful resolution of the crises that arose in prior psychosocial phases (Erikson (1997)), stating that old age can give rise to *ego integrity*, the acceptance of life in its fullness, and can culminate in *wisdom* or "informed and detached concern

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for life itself in the face of death itself" (p. 61). A feeling of satisfaction, peace and gratitude for all that has been given and received in life characterizes integrity in the old (Erikson, 1997), wisdom being a form of spiritual reconciliation of the time that has passed. Kornfeld (2012) furthermore found that individuals can become wiser in old age, a view that runs counter to the more negative views too often found in Western societies (cf., Lamb, 2014).

A number of psychosocial theories on the aging process have been adopted and contextualized in the last six decades of gerontological research, most explaining the aging process in terms of one to three dimensions. S*uccessful aging* (SA) is one of the most celebrated of these theories, SA describing healthy aging using three components: freedom from disabilities or diseases, high cognitive and physical abilities, and meaningful interactions. SA has many advantages, including that it counters the ageism and negativity that often informs the enculturated views of old age in the West. It has, however, been criticized for only addressing old people who have financial resources, higher levels of education and good physical health (cf., Lamb, 2014). Walker (2005) confirms this and notes that SA is based on American (and Western) culture ideas of the importance of success and failure. The ethnogeriatric and acculturational perspectives, however, reveal a different interpretation, successful aging in Buddhism, for example, focusing on a spiritual practice early in life and the gaining of a mature spiritual experience as one ages (Lesco, 1989). Xu, furthermore states, that SA theory cannot be considered to be a truly **holistic** approach until the spiritual dimension is included within its theoretical framework (cf., Xu, 2010). The following quote of Jung is also worth considering in this context: "the fundamental need for wholeness and integration lies at the core of the human psyche" (Jung as cited in Xu, 2010, p. 188).

This paper introduces a new aging model, *the four-dimensional model of mindful sustainable aging* (henceforth referred to as MSA model). This is a multi-faceted holistic model that is made up of eight components: activeness, bodily awareness, change processes, vigorousness, dynamism, mental alertness, social support and spiritual support. The model has been developed by referring to: 1) other psychosocial theories of aging (see, Table 2), 2) traditional Buddhist psychology; and 3) ideas originating from diverse psychodynamic schools (see, Table 1). An integral element of the MSA model is the practice of mindfulness, and its roots in Buddhism (*sati*). Mindfulness is an important tool that can enhance physio-psycho-social-spiritual wellness and improve the quality of life of the old.

The paper begins with a broad discussion of research methods, followed by a conceptual discussion of the MSA model. MSA is finally elaborated on and contextualized within the framework of the eight components.

Table 1. Overview of psychosocial theories and their central arguments about aging 1942–2009.

Theory	Emerged	Founder(s)	Central argument about old people and aging	Comments
Role theory	1942	Cottrell	Age entails a series of (often age-appropriate) roles. Our social roles strongly define our self-concept and determine our behavior.	Role losses late in life threaten the self-concept and self-esteem.
Psychosocial develop. theory	1950	Erikson	Personality ("ego-identity") develops through the resolution of a series of "identity crises" that arise in one´s engagement with the social environment.	The challenge of old age is to accept and find meaning in the life the person lived.
Activity theory	1953	Havighurst & Albrecht	Maintaining or replacing midlife roles promotes well-being.	Many older people lack the physical, emotional, social and economic resources to maintain active roles in society.
Disengagement theory	1961	Cummins & Henry	Older people require lower levels of activity, more passive roles, and less frequent interaction, and are more preoccupied with their inner lives.	Some older individuals may wish to disengage from mainstream society; this is not necessarily a process to be expected from all aged persons.
Subculture of aging theory	1962	Rose	Older people should maintain a subculture that is most adapted to their needs and interests in order to maximize well-being.	Combines role theory (e.g., engage in roles appropriate to the age), activity theory (e.g., doing activity in groups of pensioners) disengagement theory (e.g., moving into a subculture with less occupied roles in the society.
Modernization theory	1965	Cowgill & Holmes	Industrialization and urbanization lead to a loss of key roles for old people. This in turn leads to a devaluation of older people ´s contributions and older people themselves. Old people are valued less then young.	Recent evidence of such devaluation comes from modern Japan, India and Taiwan.
Age stratification theory	1971	Riley, Johnson & Foner	Focuses on structural, demographic and historical characteristics and tells us how different age groups (cohorts, strata) respond or react to social context and change.	Age-normative systems of expectations and rewards can produce difficulties across generations in understanding each other´s behavior e.g., with regard to finances or lifestyle.
Socio-environmental theory	1972	Gubrium	Older people create their own meaning for their life and their own reality of aging. A phenomenological perspective on aging.	Different physical and social contexts influence how such meaning-making manifests.
Ecological model of aging	1973	Lawton & Nahemow	This theory draws attention to the significance of the interaction between the person and the environment (social physical) for the aging experience; The Person-Environment fit.	"Aging well" involves maximizing the person (P) – environment (E) interchange; Model update as 'Ecological theory of aging (Wahl et al. 2012)
Social Breakdown theory	1973	Bengtson & Kuypers	Negative stereotypes of aging and old people within the society adversely affect the self-concept of an older person.	This results in a "downward spiral" as older people accept the stereotype of old people being incompetent and useless to society, and behave accordingly.
Social Exchange theory	1975 1980	Dowd	The shift in opportunity structures, roles, and skills that accompanies aging means that older people and younger people have different levels of resources, leading to power differentials in social and personal interactions.	Withdrawal and social isolation can be seen as manifestations of an unequal exchange process between old persons and other members of society, rather than a result of choice.

(*Continued*)

Table 1. (Continued).

Theory	Emerged	Founder(s)	Central argument about old people and aging	Comments
Political Economy of aging	1979	Estes	Structural factors – age, class, gender, race, ethnicity – are barriers that limit opportunities, choices and experience in later life, reinforced by the actions of dominant groups within society.	Unbounded capitalism results in a loss of power and autonomy for old persons.
Life Course theory	1984 1985	Dannefer Elder	A sequence of socially-defined events and roles that the individual enacts over time. Incorporates the effects of history, social structures and individual meaning.	Events and roles do not proceed in a given sequence; individuals experience age-differentiated social phenomena that are distinct from life-cycle or life-span stages.
Continuity theory	1989	Atchley	With aging there is consistency in the manifestation of the self; an individual's disposition becomes more pronounced or resists change.	Well-being arises from substituting similar types of roles for lost ones and maintaining typical ways of adapting to the environment.
Socio-emotional selectivity	1993	Carstensen	Fewer peripheral relationships but close social relationship are stable during later life. Social network are reduced not by default but by active shaping.	This theory holds that older adults are better able to control emotions and have more positive and fewer negative emotional experiences.
Gerotranscendence theory	1996	Tornstam	Life satisfaction in later life is maximized through a shift from an outward to inward orientation, from materialist-rationalist to cosmic-transcendent perspective, and reframing of reality.	Draws ideas from Erikson stage theory and what late life is about, but also from dis-engagement theory's focus on the inner life more than outer reality.

Adapted from: Bengtson, V.L. (2014, June); Heinz et al. (2017); Jett (2012).

Table 2. Overview of the psychodynamic schools and their different directions, 1890–1940.

Direction	Emerged	(Co) Founder(s)	Core Ideas	Basic drives
Psychoanalysis	1896	Freud (1856–1939)	Freud asserts that all behavior is motivated by instinctual drives forced by sexuality and aggression. These drives are primarily active at the unconscious, *id*, level of the personality which, along with the *superego* and *ego*, makes up the three main structures of the personality. The aim of psychoanalytic therapy is to release repressed emotions and experiences, i.e. to make the unconscious conscious.	"Will to pleasure"
Individual psychology	1912	Adler (1870–1937)	Adler holds the idea that the human *ego* is a fixed and united entity and is not composed of different parts, as Freud postulates. This fixed unity is kept up by the human striving toward synthesis and integration within the society.	"Will to power"
Analytic psychology	1914	Jung (1875–1961)	A core idea in Jung´s psychology is the Self. Jung stresses the idea that there are three levels of the Self: the *conscious mind* (ego), the unconscious mind, divided into the *personal unconscious* (repression) and the *collective unconscious* (inherited materials). The overarching goal of Jungian psychology is the attainment of self through individuation.	"Will to individuate"
Object relation psychology	1930s	Klein (1882–1960)	Object relation theory focuses on the internalization of interpersonal relations, their contribution to normal and pathological *ego* and *superego* development, and the mutual influences of intrapsychic and interpersonal object-relations. One of the goals in this theory is to alleviate the early anxieties and the harshness of internalized objects and inner persecutors.	"Will to attachment"
Existential psychology	1930s	Frankl (1905–1997)	Existential psychology, i.e., logotherapy, is concerned with the neurotic mode of being, in particular an awareness of human responsibility. Frankl asserts that humans become conscious of something *spiritual* or *existential*, contrary to psychoanalysis, which views the conscious from the *instinctual*. Frankl emphasizes	"Will to meaning"

(*Continued*)

Table 2. (Continued).

Direction	Emerged	(Co) Founder(s)	Core Ideas	Basic drives
			the human as a spirit being, and the search for meaning as something to be discovered by humans. Logotherapy aims inter alia to help humans find their meanings in life.	
Neo-analytic psychology	1930s	Fromm (1900–1980)	According to Fromm, the goal of humans is to be *free* from the (evil) society. Paradoxically, this freedom is something that frightens and becomes a threat for the human. Either we embrace the freedom or we escape from it. Fromm makes a distinction between to *have* and to *be*; a productive psychological orientation in this regard is "state of being."	"Will to being"
Ego psychology	1940s	Erikson (1902–1994)	Erikson hearkened back to the legacy of Freud and stressed the role of the *ego* as being more than a servant of the *id*. In Erikson´s stage of development the *ego* is the core concept that can develop either positively or negatively, according to the eight different stages. Among old persons, *integrity* is the positive pole or solution of the crisis and *despair* the opposite of the last stage of ego development. A goal for humans to strive for is to become *integrated* and reach *wisdom*.	"Will to maturate"

Method

Search strategy

The theoretical data was sampled using comprehensive search strategies in the following abstract databases: PsychINFO (advanced search: search string; mindful* AND (aging OR ageing) = 10 records), CINAHL (search string; mindful* AND (aging OR ageing) = 46 records) and Medline (EBSCO: search string; mindful* AND (aging OR ageing) = 149 records). Studies described in published peer-reviewed, full-length, theoretical and/or empirical papers in English were included in the sample. 205 papers published between 2013 and 2020 were identified. Other influential psychosocial theories of aging that were deemed to be important to understanding MSA (see, Table 2), and literature drawn from the schools of psychodynamic psychology (see, Table 1) and Buddhism, were also included.

A brief note on document analysis

Document analysis and insights from concept analysis have been used in the development of this paper. Document analysis involves, according to Pershing (2002), the assessment of a document for the purpose of gathering facts. Working with documents requires, as noted by Davie and Wyatt (2011), not only an analysis of content, but also a careful consideration of production, use and function within a specific socio-historical context. A key component of document analysis is that a document can be used as a resource for achieving purposeful scholarly ends (cf., Prior, 2008). The aim of this paper is therefore to examine how the mindfulness literature deals with the points given above, namely: (i) the introduction of the MSA model, (ii) the development of the multifaceted MSA model of sustainable aging, using the following references: 1) other psychosocial theories of aging (see, Table 2), 2) traditional Buddhist psychology; and 3) ideas originating from diverse psychodynamic schools (see, Table 1). This approach also combined a four-step concept analysis (cf., Walker & Avant, 2011), which will be discussed in the next section.

Concept analysis of MSA – A four-step model

Concept analysis is defined in this paper as "an activity where concepts belonging to a whole, their characteristics and the relations they hold within systems of concepts, are clarified and described" (Nuopponen, 2010, p. 6), and can be conducted using methods that are commonly used in the discipline under study (Nuopponen, 2010). This paper employed a four-step model of concept analysis: 1) determine the rationale for a given concept, 2) clarify the meaning of the

concept, 3) theorize the concept such that it takes on new meaning (a new definition), and 4) elaborate on and contextualize the new definition. This model is applied below to the concept of mindful sustainable aging.

Conceptualizing mindful sustainable aging (MSA)

Nilsson et al. (2015) introduce a model of sustainable aging in the paper "Mindful Sustainable Aging: Advancing a Comprehensive Approach to the Challenge and Opportunities of Old Age." The model incorporates, builds on, and goes in some ways beyond the recognized psychosocial *activity theory, disengagement theory, successful aging theory* and *gerotranscendence theory* of aging. The MSA model[2] is not a departure from these theories. It instead adds the element of mindfulness and Buddhist teachings to the notion of sustainability, incorporating the crucial features of all four and so attempting to go beyond them. Physical activity, mental alertness, social support and continued involvement in the world are important to older adults. Equally important are, however, withdrawal and disengagement, which allow time for valuable contemplation.

The MSA model, through drawing on Buddhist teachings (Atchley, 2003), focuses on the spiritual component of old age, and on better preparing the older person for the inevitable encounter with decline and death. MSA, through embracing the view that aging is rooted in inevitable loss, pain and death, represents a highly comprehensive and positive approach. Old age is seen, in this model, to be an essential part of the human journey, and as providing a major opportunity for spiritual growth and self-discovery.

The aim of this paper (its *rationale*) is to widen and clarify the concept of MSA presented here by integrating and expounding upon the eight components mentioned above. Let us first, in pursuit of a general definition of MSA, briefly clarify each term.

The term "mindful" emerged in the mid-14th century and has taken on different meanings dependent on whether it is used in a western/westernized or a Buddhist context (cf., Mikulas, 2011; Nilsson, 2013; De Silva, 2014; Sun, 2014; Wilson, 2014). Mindful can be simply understood in this paper to be *self-awareness*, the presence of the mind of a senior fully in the here and now. This presence facilitates that mind's reflections upon and reactions to external stimuli, the primary aim being arriving at satisfactory life-choices.

The term "sustainable" refers to the ability to *maintain* a certain rate or level, or to conserve an ecological balance, by avoiding the depletion of natural resources (Oxford English Dictionary, Online, 3dr ed.). "Sustainable" refers, in this paper, to the maintenance of an enduring bright aging process, that promotes well-being by addressing the four dimensions throughout the course of life (i.e., *life-course theory*).

The last term, "aging," is multi-faceted. It refers, in the gerontological literature, inter alia to *chronological age* (i.e., young-old, or 65–74; middle-old, or 75–84; old-old, or 85–99; and oldest-old, or 100+), to *biological aging* (bodily processes that eventually lead to loss of physical function), to *functional aging* (functional fitness compared to others in the same age range), to *usual aging* (the general way that aging occurs, meaning the gradual decline of corporal functions), and to *pathological aging* (the aging of those that are genetically predisposed to certain diseases or that have high-risk lifestyles which lead to premature disability and death; Jones & Rose, 2018). Somaratne (2018, p. 123) refers to Buddha, who defines the aging process as:

The aging, the decaying, the brokenness, the greying, the wrinkled-ness, the dwindling of life, the decrepitude of faculties, of this and that creature (*satta*) in this and that order of creatures (*satta*-nikāya) – this I called aging.

The term *aging* should, in this paper, however be understood as being a life process that not only involves the mental and physical deterioration described in the above definition, but also to a feeling of serenity that arises from a growing maturity and wisdom.

MSA can therefore be understood, through drawing together these three definitions, as a sustainable aging approach that seeks to help the individual to maintain an *active, vigorous* and *dynamic* lifestyle as he or she passes through the inevitable *change process* of growing old. This approach includes aspects such as the receipt of an appropriate *bodily awareness*, access to a rich and stimulating environment that enhances *mental alertness*, the development of a solid network of *social support*, and the personal cultivation of *spiritual support*. This approach is discussed below in terms of the four dimensions and the mode's eight components (in italics).

Biological dimension

Component one: activeness

The importance to the elderly of physical activity is emphasized in Havighurst and Albrecht's *activity theory*, they stating that participating in regular physical and social activities contributes significantly to the well-being of old persons. Maintaining physical activity can improve or even prevent health problems such as atherosclerosis, obesity, joint immobility, pneumonia, constipation, pressure ulcers, depression, insomnia and frailty (Eliopoulos, 2014; Kwon et al., 2011). All exercise programs should address cardiovascular endurance (e.g., tennis, swimming, jogging and walking), flexibility training (e.g., stretching exercises, mindfulness yoga), and strength training (e.g., lifting weights; Anspaug et al., 2009). Agencies such as the American College of

Cardiology and the American Heart Association recommend at least 2 days of major-muscle-group exercise and at least 150 minutes of moderate aerobic exercise per week (Neff-Smith, 2011).

An old person's *activity level* can be measured using physical and mobility assessments (cf., Neff-Smith, 2011). Professionals, such as physical or occupational therapists, can measure physical parameters such as muscle strength/endurance, aerobic endurance, flexibility and motor ability, and to through this identify those that are (or will be) at risk of mobility problems (Jones & Rikli, 2018; Neff-Smith, 2011). Measuring more ordinary functions such as walking, climbing stairs, lifting, reaching, bending, kneeling and jogging, can also help detect an old person's functional limitations. Physical impairment coupled with functional limitation is likely to lead to a disability/dependence condition (Jones & Rikli, 2018), the purpose of these measurements being to target activity goals. Activity goals can be seen, within *continuity theory*, to provide old persons with autonomy in their daily self-care routines, and in their ability to travel, maintain their home, engage in gardening, in sports, and in other types of activities that enrich their lives and enhance their well-being (Neff-Smith, 2011; Walker, 2005).

A study has found that old persons tend today to spend far more time at home than they do engaging in outdoor activities (Gibson & Singleton, 2012). The Japanese government has, for example, adopted a proactive stance to counter this trend which is in line with *the ecological model of aging*, the government providing opportunities for the elderly to engage in meaningful social and "leisure time" (*ikigai*) activities in locations outside the home (Nakanishi, 1999; Mathews, 1996). *Ikigai* emphasizes leisure activities that create meaning in life, and lead to a state of mind that is forward rather than backward looking (Nakanishi, 1999). The Japanese government's model of encouraging *ikigai* should, in light of the growing numbers of healthy seniors in societies throughout the world, become a source of inspiration for governments and health professionals worldwide.

Physical activity and exercise not only improve the physical health of seniors, but also brings meaning to their everyday lives. This can, furthermore, stimulate their involvement in activities such as mindfulness, which has the potential to enhance their mental, emotional, and spiritual/existential well-being. Older adults who regularly practice *qi gong, tai-chi* and other forms of "mindfulness training" in parks and other outdoor venues have been found to be healthier, more resilient, and more overall active (Dean, 2001; Finger & Arnold, 2002; Jones & Rose, 2018; Liang & Luo, 2012). We assume that this regular practice can also contribute to a senior's sense of bodily awareness.

Component two: bodily awareness

The vast majority of seniors will sooner or later require medical care. Old persons often depend on others such as friends, loved ones, and a variety of public services for personal, medical, and social assistance in the meeting of

their basic needs. Many are, however, forced to take responsibility for their own care, something that is not always easy even for the young (Kornfeld, 2012). There is therefore a need for specialized *bodily awareness* among the old. As Soeng et al. (2017) wisely notes, such bodily awareness (or somatic introspection) among seniors is marked by their attention to every micro-episode of lived experience as the physical sensations that arise and fall within the body. Jung (2017) also reminds us that " . . . for the aging person it is a duty and necessity to give serious attention to himself." This does not mean that this type of introspection should become a form of narcissistic bodily attachment. It is instead intended to heighten one's awareness and acceptance of one's internal discomfort and external decline. As Madame Eng (75 years old) states: " . . . Buddhism teaches us not to get attached to phenomenal appearances, so that we become more detached. Then there'll be no stress arising from thinking that I'm an older person, an unattractive older person" (as cited in Xu, 2019, p. 7).

Health conditions such as cardiovascular illness, neurodegenerative disease, and urogenital problems are a few of the most common ailments of seniors. Many seniors also experience daily stress, anxiety and chronic pain. It should be noted that both early and later research on chronic pain patients has overwhelmingly established that mindfulness training can reduce the intensity of and emotional reactivity to pain and decrease the need for pain-relieving medicines. Soeng et al. (2017) asserts that "the mindful approach to treating chronic pain involves turning toward the primary sensations and paying close attention to their texture, rather than trying to block them out or resist them (p. 98)." Many "pain studies" have furthermore found that at least some of these positive outcomes lasted for up to 4 years (Kabat-Zinn, 1982; Kabat-Zinn et al., 1985, 1987).

Psychological dimension

Component three: change processes

All persons, irrespective of their age, gender or ethnicity, must deal with the *change processes* involved in growing old (e.g., physical and mental deterioration, transfer to a care facility, the loss of loved ones, etc.). Jung emphasizes that " . . . ageing people should know that their lives are not mounting and expanding, but that an inexorable inner process enforces the contraction of life" (Jung as cited in Xu, 2018, p. 1012), the Buddhist Soeng et al. (2017) writing "we will get sick, we will get old, we will die. These are natural processes. Making peace with these natural processes requires an application of awareness and wisdom to our entire life, not simply our pursuit of happiness in the face of psychological suffering" (pp.27–38). These changes are completely beyond our control. The attitude we choose to adopt toward this inevitable decline will, however, determine the quality (and tranquility) of our final years. Frankl notes that "attitude" is crucial to

adapting to change: "Neurotics misunderstand their experience as 'This is the way I have to be.' Healthy persons have the attitude of 'I can always change'" (Frankl as cited in Seeber, 2013, p. 144).

It is important to note here that one should ideally not wait until old age to develop a sound attitude. We begin to age as soon as we are born, Erikson's *psychosocial theory* positing that the individual is, from the very start of life (i.e., infancy), confronted with a series of identity crises that must be resolved in one way or the other (e.g., trust vs. mistrust) (Erikson, 1950). The aging process, according to *role theory*, carries us from one role to another, this impacting both our sense of self and our behavior as we pass through the different phases of life. *Life course theory*, however, conceptualizes aging as a series of socially defined events and roles that the individual enacts over time, through incorporating the effects of history, sequence, individual experience, age-related social structures, and individual meaning.

Life itself is considered, in Buddhist thought, to be a process (i.e., the first of the three universal truths within Buddhism) that entails suffering (i.e., the second universal truth within Buddhism) and ultimately, "the final cessation of suffering – Nibbâna" (Bodhi, 2015, p. 286). Siddhārtha Gautama (the Buddha), through witnessing the invariable problems of old age (*jarā*), sickness (*byādhi*) and death (*maraṇa*), became determined to understand the source of human suffering. One of the basic teachings in early Buddhism is therefore the "Four Noble Truths" and the "Noble Eightfold Path", these being the means by which suffering can be overcome. Being mindful, in Buddhism, enables one to recognize that the self is impermanent and constantly changing (*thitassa annathatta*), a notion that is thought to eliminate the illusory separation between the individual and others.

The idea that we are not really "selves" is, of course, for most westerners a difficult pill to swallow, and can explain why the modern mindfulness movement, a watered-down, westernized outgrowth of Buddhist thought, has de-emphasized core philosophic notions such as non-permanence and non-self (i.e., the third of the three universal truths in Buddhism). People, including the old, can therefore take full advantage of mindfulness practices such as body scanning (a method by which one becomes more "present" in one's body), meditation and yoga without requiring a deep understanding (or embracement) of these Buddhist notions.

McBee notes that mindfulness-based elder care promotes interventions and programs that are designed to engage frail old persons and their caregivers in the process of conscious aging. Mindfulness training, irrespective of whether old persons are cared for at home, in a hospital or other service facility, therefore addresses physical, mental, social, and spiritual/existential needs, mindfulness training programs for caregivers according to McBee therefore having a positive impact on both those who give and those who receive professional care (McBee, 2009, p. 443).

Component four: vigorousness

As the philosopher Rousseau once said, "the body must be vigorous in order to obey the soul . . . the weaker the body, the more it commands . . . thus a frail body weakens the soul" (Rousseau quoted in Shusterman, 2012, p. 36). This statement bares some resemblances to the Buddhist view that vigor (*viriya*), one of the five spiritual faculties, must be controlled by the mind, as must the other four spiritual faculties faith, mindfulness, concentration and wisdom (Conze, 2013). *Vigorousness*, in both the Western and the Buddhist sense, involves being full of physical and mental strength. Jung, however, considers vigorousness to be connected to life as a goal-oriented energy process: "Life is teleology par excellence; it is the intrinsic striving towards a goal, and the living organism is a system of directed aims which seek to fulfill themselves . . . the end of every process is its goal" (Jung, 1992, p. 406). It would be accurate to assert that the benefits of mindfulness (i.e., body-scanning, meditation and yoga) include working towards this goal by increasing energy and/or active force, which in turn fills the practitioner (the senior) with physical and mental strength (Gard et al., 2014; Kabat-Zinn, 2013; McBee, 2009; Niemiec et al., 2012; Shennan et al., 2011). McBee (2009), for example, reports that a weekly mindfulness-yoga class for healthy seniors (aged 65–85) over a six-month period resulted in improvements in the quality-of-life measures of well-being, energy, balance and flexibility, when compared with exercise and wait-list control groups (McBee, 2009). Vigorousness in this context means that an old person's activity is a manifestation of his or her power or dynamic force. "Dynamic," in this context, refers not only to physical but also to mental vigorousness, this being the manner in which the senior creates their own life-meaning and their own aging reality, as epitomized by the *socio-environmental theory*. We may, in this regard, bear in mind what Jung writes: "for the ageing person it is a duty and a necessity to devote serious attention to himself" (1978, p. 17).

The search for meaning is, according to Frankl (2011), the driving force in human life and a reliable criterion of mental health. Lack of meaning in life is a major cause of depression, a common ailment among the old (Frankl, 2011). Pinquart notes that it is essential to consider the meaning component when attempting to explore the causes of an old person's depression (2002). A more nuanced discussion of the notion of "dynamic force" is given in the next section.

Component five: dynamism

The word *dynamism* denotes, in Buddhism, a process of changing between subject and object (Karunadasa, 2018). This inner activity can also be described in terms of mindfulness meditation (Nilsson et al., 2015). Meditation is, contrary to popular belief, not an inert process, but a dynamic activity within the meditator's brain, and is highly regarded by scientists such as D. J. Siegel (2007); D.J. Siegel (2012)

and Davidson and McEwen (2012) who went to great lengths to establish that meditation factually "works" and can produce long-term physiological changes to the brain. Yuen and Baime (2006) note, referring to older persons, that " … meditation practice may help to give perspective to their life as physical and mental abilities operate at a slower pace" (p. 241).

Sexuality is, according to Freud, 1905/2000), the most dynamic and consequential force in human life. Libido, the sex drive, although repressed in the unconscious, is a dynamic force (in Freudian terms, *psychic energy*) that has an overwhelming impact on human life, libido being generally equated by Freud with one's psychical instinctual force and specifically equated with the process of sublimation (Freud, 1905/2000, p. 218). One should, however, be careful when speaking of sexuality as a dynamic force and not limit this only to the act of intercourse. Common stereotypes and misconceptions include the notions that the sexual activity of seniors can cause them physical harm, and that sexual intimacy is something the old no longer desire, or that aging affects performance (erectile dysfunction among men and dry mucous membrane among women). Studies have shown, contrary to these ideas, that most healthy seniors are still interested in sexuality and intimacy, (Yuen & Baime, 2006). Intimacy and eroticism are fundamental to individuals and couples irrespective of age and cultural background (Eliopoulos, 2014; cf., Ford & Chamratrithirong, 2012/).

Yuen and Baime (2006) further suggest that seniors can free themselves from the limitations imposed by the above societal stereotypes, notably in the *social breakdown theory*, by practicing meditation. The issue of the sexuality and mindfulness of the old has been recently studied by a number of sexual therapists (Brotto et al., 2013; Kozlowski, 2013; Lazaridou & Kalogianni, 2013; McCarthy & Wald, 2013; Sommers, 2013). It can be cautiously concluded from their findings that mindfulness practice contributes to a healthy sexuality and improved sexual function.

The issue of "letting go" was also found to be central to both intimacy and sexuality. "Letting go" in mindfulness means acceptance of one's current circumstances and the adoption of a non-judgmental attitude toward sexual performance. Researchers in the field of sexuality have noted that sexuality is all too often equated with penetration and performance, a typical male stereotype. This is, however, only one side of the coin. Intimacy is also a matter of mutual play, sensuality and erotic touch (Eliopoulos, 2014; McCarthy & Wald, 2013). A more realistic approach is therefore recommended when discussing intimacy and sexuality among seniors, McCarthy and Wald (2013) calling this *Good Enough Sex* (GES). Mindfulness meditation and relaxation training has, furthermore, been found to help old couples increase their capacity to "let go," which is essential in proper sexual functioning and the experience of pleasure (Lazaridou & Kalogianni, 2013). As McCarthy and Wald (2013) note: "By embracing mindfulness, GES and the integral role of the woman in partner sex vitality, the clinical adage is that 'wise men' can be sexual into their 60s, 70s and 80s" (p. 40).

Component six: mental alertness

Disengagement theory emphasizes the disentangling of seniors, when they retire, from most of the routines, tasks, and work-related responsibilities that previously occupied their time. They are then able, when freed in this way, to spend more time on relaxation and reflection, and on activities designed for physical, neurological (brain), and mental stimulation (e.g., sudoku, crossword puzzles, chess, reading, etc.; Katz, 1999). Seniors who are dependent on home or hospital care, or who reside in a live-in facility do not, however, always have as much opportunity to engage in these stimulating activities. This is often not due to a lack of the dependent senior wanting to engage in these activities, but is due to overworked professional and non-professional caregivers, who are unable to spend time mentally engaging all patients that are in their care.

Mental stimulation can also be achieved via different mindfulness practices and other mind/brain techniques. Research into dementia for example, suggests that old persons who participate in activities that engage more than one mental, physical or social component, appear to benefit more than those who engage in only one type of activity (Karp et al., 2006). These researchers suggest that public health and community organizations should make different types of activities more accessible to the old, to reduce the risk of developing dementia (2006). Activities can include mindfulness training and other mind-body activities.

Coming together as a group to practice and develop mindfulness not only strengthens the connection between the brains and bodies of seniors, but also provides group members with the opportunity to socialize (Hölzel et al., 2013; McBee, 2009; Moynihan et al., 2013). Mattle et al. (2020) have shown that the regular training of mindfulness, tai-chi and dance provides seniors with not only the opportunity of social interaction, but also a program of physical development that can help with the common senior problem of accidental falls.

The psychological dimension in change processes, vigorousness, dynamism and mental alertness has now been reviewed. All are crucial for MSA. We now discuss, in the next section, the social dimension and the need for human interactivity using social support.

Social dimension

Component seven: social support

It is important to note that mindfulness training, in addition to the positive effects of social activity and interaction, also provides seniors with the opportunity to participate in group activities, develop new acquaintances, increase their social sphere and expand their network of social support. All these are, according to *socio-emotional selectivity theory*, extremely important to seniors' personal well-being. A social network can include spousal support, the support of family and friends, church membership, and even membership of a mindfulness-

training group or a Buddhist *sangha* (Sarafino, 2002). Adler (1964) notes that individual and community development can both be measured in terms of the degree of social feeling (e.g., empathy, compassion and caring). This is akin to Buddhist thought, which emphasizes that human beings not only have an emotional connection, but also are responsible for each other as members of a greater community or society (Overholser, 2010).

Research findings suggest that strong social support reduces stress (the buffering hypothesis) and increases longevity. Individuals that have little contact with friends and relatives tend to have a higher mortality rate than those with higher levels of contact with others (Sarafino, 2002). Research on the social networks and mental health of those aged 65 and older however suggests that lack of contact with family members is less detrimental where seniors are supported by a network of friends.

It has in general been found that a solid network of social support has a positive effect on mental health (Fiori et al., 2006). Most seniors in India, for example, live in multi-generational households characterized by intergenerational reciprocity, a dynamic in which senior parents receive from their children that which they once provided – emotional and material support (Lamb, 2014). Such arrangements are, however, far less common in the Western world.

Research has also demonstrated that both heart disease and surgery patients tend to recover more quickly when they have a high level of social support, than those with less support (the direct effects hypothesis). There is, however, some evidence that patients who believe they are able to cope with the emotional demands of their illness, tend to recover without the benefit of social support (Sarafino, 2002). Social support has even been found to be harmful where friends and family members act in counterproductive and/or overprotective ways, or set bad examples through maintaining unhealthy diets, avoiding exercise or making other unhealthful lifestyle choices (Rook et al., 2007; Sarafino, 2002).

The level of social contact with friends is, according to Pinquart and Sörensen (2000), more closely correlated with subjective well-being than the level of contact with adult children. These astounding findings are explained by the old intersubjectively sharing more commonalities with each other than they do with their adult children. *Age stratification theory* posits, in this issue, that persons in the same age group tend to have similar personal characteristics, cohort experiences and lifestyles. Pinquart and Sörensen (2000) claim that this cohort also shares common objectives, this resulting in positive exchanges, enjoyment and the sharing of good times. These researchers also, however, note that it would be incorrect to conclude from their findings that adult children are less important to seniors' social well-being (2000). It can be mentioned here that participation in group mindfulness activities is one

means of bringing seniors together in the sharing of positive, life-enhancing experiences. Involvement in collective spiritual activities can also afford similar opportunities, as will be discussed in the next section.

Spiritual dimension

Component eight: spiritual support

Spiritual/religious support among the old not only, according to Park (2007), gives meaning to life, but also provides higher levels of social support, so contributing to overall health and well-being (cf., Kornfeld, 2012). Park (2007) writes: " . . . the sense of belonging and social integration with others within one's congregation or religious tradition, may provide particularly potent support for one's values and beliefs. In this regard, *subculture of aging theory* speaks of the value of keeping to a subculture (e.g., congregation) that are adopt needs and interest in order to maximize well-being. Such social connections provide strength and validation for one´s life and lifestyle, deepening one´s sense of meaning in life" (p. 321). Religion, for Krause, binds people together in social relationships, which have important implications for psychosocial functioning (i.e., functional social support). Frankl (2011) has noted that the feeling of being an included and accepted member of a group is of great importance to the individual's sense of meaning and value in life, and can potentially lead to a "meaningfulness-positive" outcome (Frankl, 1954). Being part of a congregation, or a *Sangha* (Buddhist monastic order) for a Buddhist, can provide seniors with emotional and spiritual support from fellow congregants and from their faith in God (McFadden, 2013). Suttie, Fairbairn, Guntrip and Winnicott call attention to the role of religion as a holistic force, as a way of improving emotional relationships, and of bridging the inner and outer realities (Wulff, 1996).

This finding does not, however, necessarily apply to all religious settings. Some can place artificial constraints and different forms of unwanted pressure on the individual, the setting therefore having a negative rather than a positive effect on the individual (Park, 2007). Religious/spiritual support can therefore contribute to overall health and well-being, but can also result in negative effects (e.g., constraints, criticism, and pressure). This will depend on the individual's general social network and their religious network in particular (Park, 2007). Research by Puchalski et al. (2014) also critically notes that spirituality in relationship-centered compassionate care has an impact on patients and health care professionals in the healing context.

Tornstam's (2005) *gerotranscendence theory* (GT) is one of a handful of gerontological psychosocial theories that acknowledge the importance of the spiritual component. GT, following the lines of Erikson and Jung, highlights the inner landscape by delineating a pattern of development that moves beyond the old

dualism of *activity* vs. *disengagement*. GT furthermore emphasizes the shift in focus from the external (outward) to the internal (inward – the turn toward self-exploration). This inward turn is said to enhance human wisdom and well-being and is found in both Buddhism and the final stage of Erikson's theory of psychosocial development.

Figure 1 is a depiction of the holistic model of mindful sustainable aging.

Concluding remarks

There are four prominent and recognized theories of aging within the field of gerontology. They are a*ctivity theory* and *successful aging theory*, which consider physical and social activity to be the key to a healthful old age, and *disengagement theory* and *gerotranscendence theory*, which concentrate on withdrawal and inward-directed contemplation. The polarity these represent leaves us with a largely artificial dichotomy. The active and the contemplative life is clearly of importance to seniors in their capacity to enjoy a rich, vigorous outer life during their final years. Withdrawal and inward-directed contemplation, however, enriches the inner life and prepares seniors for the inevitable journey into the unknown. Attaining a balance between the extroverted and introverted spheres

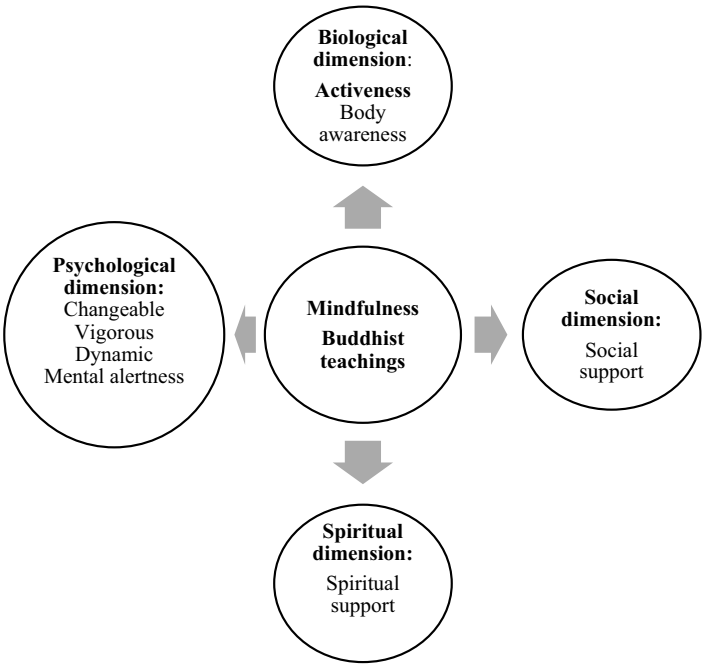

Figure 1. *The four-dimensional model of MSA*. The MSA model illustrates the interplay of the four dimensions biological, psychological, social and spiritual. These four dimensions consist of eight components: activeness, bodily awareness, changeable, vigorous, dynamic, mental alertness, social support and spiritual support. Each dimension can be affected and strengthened by mindfulness and Buddhist teachings.

of life is therefore an important step in meeting the limitations, challenges, and also the meaningful opportunities of old age. How, then, does the notion of MSA advance extant theories in striking this important balance?

Adding the MSA model to the mix of gerontological theories is in no way meant to negate, overturn or supersede theories that emphasize either external activity or internal contemplation and withdrawal. The aim of the introduction of MSA is to discuss, explore and encourage research into whether mindfulness practices can help seniors to face the struggle against infirmity, and make peace with approaching death. The aim is also to determine whether mindfulness practices can improve seniors' physical, mental and emotional well-being, increase their level of social activity, expand their network of social support, and continue their spiritual search for meaning in life.

It is not suggested that broaching the subject of impending death means morbidly dwelling on their demise. Death *is*, however, a reality for us all, many notable thinkers pointing out that the "head in the sand" approach (denial to the bitter end) is as wrongheaded as morbidly "dwelling" on the issue. Existential contemplation is meant, however, to be more than merely preparing for death. Thinkers such as Frankl (2011) have noted that the search for spiritual meaning is fundamental to the personal development of all human beings. This is an ongoing process, and is therefore equally relevant and important to all age groups, including seniors. What, again, does mindfulness practice bring to the table? What is its potential to help improve both the outward and the inward areas of a senior's life?

Mindfulness research has, to a great extent, solidly established that techniques such as body scanning can help improve the physical and mental lives of seniors, especially those suffering from pain, anxiety and stress, or struggling with ailments such as heart disease, stroke, and Alzheimer's disease. Mindfulness practice also generally takes place in a group setting. This provides seniors with an excellent way of making new friends and establishing social connections that can potentially continue beyond the mindfulness sessions. The link between the modern mindfulness movement and its traditional Buddhist origins furthermore provides those interested with a rich source of existential knowledge, wisdom and understanding, which can contribute to their search for personal meaning – an enterprise that involves a shift from the doing to the being mode. Generativity and wisdom are hallmarks of this type of spiritual achievement (Atchley, 2003), mindfulness practice being said to facilitate such generativity and wisdom (Nilsson, 2014). Mindfulness practice therefore has a tremendous potential to promote a balanced approach to bright aging.

The MSA model has been presented in this paper as a multi-pronged approach. The notion of this approach is that it is an integrated "theoretical construct" that can contribute to the maintenance of healthy longevity. It was inspired by some of the guidelines developed by the European FORUM

project, which emphasizes the need for further theoretical work on quality-of-life models related to old age and the further development of the instruments used to assess these models (Walker, 2005).

A tremendous amount of empirical research will clearly be required before we can say anything definitive about the benefits of MSA and the effectiveness of mindfulness.

The integrated, holistic view that has been presented in this paper, and which is inherent to the approach of this model, risks being criticized for being overly eclectic, cross-disciplinary and/or cross-cultural. It is, however, our view that such an approach can lead to novel insights that can improve the aging experience for seniors throughout the world. What it means to be old is, from a mindfulness perspective, eloquently summarized by McBee: "An Old is a person who is still growing, still a learner, still with potential, and whose life continues to have within it, promise for and connection to the future. An old person is still in pursuit of happiness, joy and pleasure, and her or his birthright to these remains intact. Moreover, an old is a person who deserves respect and honor and whose work is to synthesize wisdom from long life experience and formulate this into a legacy for the future generations" (McBee, 2009, p. 164).

The MSA model can, when understood in this light, be said to constitute a highly comprehensive and positive approach, that views old age as an essential part of the human journey, and that affords a unique opportunity for spiritual growth and self-discovery. Mowat (2005), in keeping with this view, notes that the aging individual should discover and negotiate individual meaning even when confronted with what Frankl (2011) calls the tragic triad of pain, guilt and death. Old age and its fundamental purpose is therefore to search for meaning through a search for spiritual self. This is what Erikson (1997) called ego integrity (p. 10), a view that is highly compatible with Buddhist teachings, and which is at the very heart of mindfulness practice and thought.

Notes

1. The terms "old," "old age," "old person," and "senior" are used in this paper to refer either to those that are 65 years and older or to the period of life that begins at age 65.
2. According to Levin et al. (2011), theoretical models derive from mid-range theories. A number of theoretical models have been identified in the religion and aging field; the distress-deterrent model, the prevention model, the moderator model, and the health effects model. The mid-range theory seeks to explain particular social, psychological, and behavioral phenomena. These are, unlike grand theories, "less-reaching" theories specific to particular fields or issues. Mid-range theories within sociology include relative deprivation, the self-fulfillment prophecy, cognitive dissonance, social mobility and the anomic antecedents of suicide. Mid-range theories also reference social gerontology and include disengagement theory, active theory and attachment theory.

Disclosure statement

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References

Adler, A. (1964). *Social interest: A challenge to mankind*. Capricorn Books. J. Linton & R. Vaughan, Trans.

Anspaug, D. J., Hamrick, M. H., & Rosato, F. D. (2009). *Wellness. Concepts and applications*. McGrew-Hill.

Atchley, R. C. (2003). Becoming a spiritual elder. In M. A. Kimble & S. H. McFadden (Eds.), *Aging, spirituality and religion: A handbook* (Vol. 2, pp. 33–46). Augsburg Fortress.

Bengtson, V. L. (2014, June). New trends in theory of aging. In *International forum. Seminar presented at Aging Research Centre*. University of Stockholm/Karolinska Institutet.

Bodhi, B. (2015). *The vision of Dhamma. Buddhist writings of Nyanaponika Thera* (2 ed.). Buddhist Publication Society.

Brotto, L. A., Basson, R., Carlson, M., & Zhu, C. (2013). Impact of an integrated mindfulness and cognitive behavioral treatment for provoked vestibulodynia (IMPROVED): A qualitative study. *Sexual and Relationship Therapy*, *28*(1–2), 3–19. https://doi.org/10.1080/14681994.2012.686661

Conze, E. (2013). *The way of wisdom: The five spiritual faculties*. Access to Insight (BCBS Edition), Retrieved August 01, 2021, from http://www.accesstoinsight.org/lib/authors/conze/wheel065.html

Davidson, R. J., & McEwen, B. S. (2012). Social influence on neuroplasticity: Stress and interventions to promote well-Being. *Nature Neuroscience*, *15*(5), 689–695. https://doi.org/10.1038/nn.3093

Davie, G., & Wyatt, D. (2011). Document analysis. In M. Stausberg & S. Engler (Eds.), *The Routledge handbook of research methods in the study of religion* (pp. 151–160). Routledge.

De Silva, P. (2014). *An introduction to Buddhist psychology and counselling. Pathways of mindfulness-based therapies* (*5th* ed.). Palgrave McMillan.

Dean, E. (2001). Neo-Confucianism and physiotherapy: The mind-body-spirit connection. *Hong Kong Physiotherapy Journal*, *19*(1), 3–8. https://doi.org/10.1016/S1013-7025(09)70017-X

Eliopoulos, C. (2014). *Gerontological nursing*. Wolters Kluwer Health/Lippincott Williams & Wilkins.

Erikson, E. H. (1950). *Childhood and society*. W W Norton & Co.

Erikson, H. E. (1997). *The life cycle completed (extended version, by Joan M. Erikson)*. W. W Norton.

Finger, W., & Arnold, E. M. (2002). Mind-body interventions: Applications for social work practice. *Social Work in Health Care*, *35*(4), 57–78. https://doi.org/10.1300/J010v35n04_04

Fiori, K. L., Antonucci, T. C., & Cortina, K. S. (2006). Social network typologies and mental health among older adults. *Journal of Gerontology: Psychological Sciences*, *61*(B), 25–32.

Ford, K., & Chamratrithirong, A. (2012). Midlife sexuality among Thai adults: Adjustment to aging in the Thai family context. *Sexuality & Culture*, *16*(2), 158–171. https://doi.org/10.1007/s12119-011-9115-0

Frankl, V. E. (1954). Group psychotherapeutic experiences in a concentration camp. *Group Psychotherapy*, *7*(2), 81–99.

Frankl, V. (2011). *Man´s search for ultimate meaning*. Rider Books.

Freud, S. (1905/2000). *Three essays on the theory of sexuality*. Basic Books.

Fromm, E. (1966). Psychological problems of aging. *Journal of Rehabilitation*, *32*(5), 10–12, 551–57.

Gard, T., Hölzel, B. K., & Lazar, S. W. (2014). The potential effects of meditation on age-related cognitive decline: A systematic review. *Annals of the New York Academy of Sciences*, *1307*(1), 89–103. https://doi.org/10.1111/nyas.12348

Gibson, H. J., & Singleton, J. F. (Eds.). (2012). *Leisure and aging: Theory and practice*. Human Kinetics.

Heinz, M., Coned, N., da Rosa, G., Bishop, A. J., & Finchum, T. (2017). Examining supportive evidence for psychosocial theories of aging within the oral history narratives of centenarians. *Societies*, *7*(8), 1–21. https://doi.org/10.3390/soc7020008

Hölzel, B. K., Hoge, E. A., Greve, D. N., Gard, T., Creswell, J. D., Brown, K. W., Barrett, L. F., Schwartz, C., Vaitl, D., & Lazar, S. W. (2013). Neural mechanisms of symptom improvements in generalized anxiety disorder following mindfulness training. *NeuroImage: Clinical*, *2*, 448–458. https://doi.org/10.1016/j.nicl.2013.03.011

Jett, K. (2012). Theories of ageing. In T. A. Touhy & K. F. Jett (Eds.), *Ebersole & Hess' toward healthy aging: Human needs and nursing response* (8th ed., pp. 33–43). Elsevier Mosby.

Jones, C. J., & Rose, J. D. (2018). The field of gerokinesiology. In C. J. Jones & J. D. Rose (Eds.), *Physical activity instruction of older adults* (pp. 4–10). Human Kinetics.

Jones, C. J., & Rikli, R. E. (2018). Field-based physical and mobility assessments. In C. J. Jones & D. J. Rose (Eds.), *Physical activity instruction of older adults* (pp. 81–93). Human Kinetics.

Jung, C. G. (1992). *The structure and dynamics of the psyche, (Bollingen Series XX)*. Princeton University Press.

Jung, C. G. (2017). *Modern man in search of a soul*. Martino Fine Books.

Kabat-Zinn, J. (1982). An outpatient program in behavioral medicine for chronic pain patients based on the practice of mindfulness meditation: Theoretical considerations and preliminary reports. *General Hospital Psychiatry*, *4*(1), 33–47. https://doi.org/10.1016/0163-8343(82)90026-3

Kabat-Zinn, J., Lipworth, L., & Burney, R. (1985). The clinical use of mindfulness meditation for self-regulation of chronic pain. *Journal of Behavioral Medicine*, *8*(2), 163–190. https://doi.org/10.1007/BF00845519

Kabat-Zinn, J., Lipworth, L., Burney, R., & Sellers, W. (1987). Four-year follow-up of a meditations-based program for the self-regulation of chronic pain: Treatment outcomes and compliance. *Clinical Journal of Pain*, *2*(3), 159–173. https://doi.org/10.1097/00002508-198602030-00004

Kabat-Zinn, J. (2013). *Full catastrophe living. Using the wisdom of your body and mind to face stress, pain and illness* (2nd edition, revised and update ed.). Bentham Random House.

Karp, A., Paillard-Borg, S., Wang, H.-X., Silverstein, M., Winblad, B., & Fratiglioni, L. (2006). Mental, physical and social components in leisure activities equally contribute to decrease dementia risk. *Dementia Geriatric Cognitive Disorder*, *21*(2), 65–73. https://doi.org/10.1159/000089919

Karunadasa, Y. (2018). *Early Buddhist teaching*. Wisdom Publications.

Katz, L. C. (1999). *Keep your brain alive. 83 neurobic exercises*. Workman Publishing Company.

Kornfeld, M. (2012). *Cultivating wholeness. A guide to care and counselling in faith communities*. Continuum.

Kozlowski, A. (2013). Mindful mating: Exploring the connection between mindfulness and relationship satisfaction. *Sexual and Relationship Therapy*, *28*(1–2), 92–104. https://doi.org/10.1080/14681994.2012.748889

Kwon, G.-Y., Kim, S.-K., & Shin, Y. (2011). Physiologic aspects of frailty in aging and possible intervention. In M. L. Wykle & S. H. Gueldner (Eds.), *Aging well. Gerontological education for nurses and other health professionals* (pp. 551–662). Jones & Bartlett Learning.

Lamb, S. (2014). Permanent personhood or meaningful decline? Toward a critical anthropology of successful aging. *Journal of Aging Studies*, *29*, 41–52. https://doi.org/10.1016/j.jaging.2013.12.006

Lazaridou, A., & Kalogianni, C. (2013). Mindfulness and sexuality. *Sexual and Relationship Therapy*, *28*(1–2), 29–38. https://doi.org/10.1080/14681994.2013.773398

Lesco, P. A. (1989). Aging through Buddhist eyes. *Journal of Religion & Aging*, *5*(3), 59–66. https://doi.org/10.1300/J491v05n03_05

Levin, J., Chatters, L. M., & Taylor, R. S. (2011). Theory in religion, aging, and health: An overview. *Journal of Religion and Health*, *50*(2), 389–406. https://doi.org/10.1007/s10943-009-9319-x

Liang, J., & Luo, B. (2012). Toward a discourse shift in social gerontology: From successful aging to harmonious aging. *Journal of Aging Studies*, *26*(3), 327–334. https://doi.org/10.1016/j.jaging.2012.03.001

Mathews, G. (1996). The Pursuit of a Life Worth Living in Japan and the United States. *Ethnology*, *35*(1), 51–62.

Mattle, M., Chocano-Bedoya, P. O., Fischbacher, M., Meyer, U., Abderhalden, L. A., Lang, W., … Bischoff-Ferrari, H. A. (2020). Association of dance-based mind-motor activities with falls and physical function among healthy older adults: A systematic review and meta-analysis. *JAMA network open*, *3*(9), e2017688–e2017688. https://doi.org/10.1001/jamanetworkopen.2020.17688

McBee, L. (2009). Mindfulness-based old care: Communicating mindfulness to frail olds and their caregivers. In F. Didonna (Ed.), *Clinical handbook of mindfulness* (pp. 431–445). Springer.

McCarthy, B., & Wald, L. M. (2013). Mindfulness and good enough sex. *Sexual and Relationship Therapy*, *28*(1–2), 39–47. https://doi.org/10.1080/14681994.2013.770829

McFadden, S. H. (2013). Old person, old age, aging and religion. In R. F. Paloutzian & C. L. Park (Eds.), *Handbook of the psychology of religion and spirituality* (pp. 198–212). Guilford Press.

Mikulas, W. L. (2011). Mindfulness: Significant common confusions. *Mindfulness*, *2*(1), 1–7. https://doi.org/10.1007/s12671-010-0036-z

Mowat, H. (2005). Ageing, spirituality and halth. *Scottish Journal of Healthcare Chaplaincy*, *8*(1), 7–12.

Moynihan, J. A., Chapman, B. P., Klorman, R., Krasner, M. S., Duberstein, P. R., Brown, K. W., & Talbot, N. L. (2013). Mindfulness-based stress reduction for older adults: Effects on executive function, frontal alpha asymmetry and immune function. *Neurobiology*, *68*(1), 1–17. https://doi.org/10.1159/000350949

Nakanishi, N. (1999). 'Ikigai' in older Japanese people. *Age and Ageing*, *28*(3), 323–324.

Neff-Smith, M. (2011). Gardening: A natural way for elders to exercise and stay engaged and healthy. In M. L. Wykle & S. H. Gueldner (Eds.), *Aging well. Gerontological education for nurses and other health professionals* (pp. 419–427). Jones & Bartlett Learning.

Niemiec, R. M., Rashid, T., & Spinella, M. (2012). Strong mindfulness: Integrating mindfulness and character strengths. *Journal of Mental Health Counseling*, *34*(3), 240–253. https://doi.org/10.17744/mehc.34.3.34p6328x2v204v21

Nilsson, H. (2013). How mindfulness becomes mindlessness: A hermeneutical approach. *Asian Journal of Humanities and Social Studies*, *1*(4), 187–196.

Nilsson, H. (2014). A four dimensional model of mindfulness and its implications for health. *Psychology of Religion and Spirituality*, *6*(2), 162–174. https://doi.org/10.1037/a0036067

Nilsson, H., Bülow, P., & Kazemi, A. (2015). Mindful sustainable aging: Advancing a comprehensive approach to the challenge and opportunities of old age. *Europe´s Journal of Psychology*, *11*(3), 494–508. https://doi.org/10.5964/ejop.v11i3.949

Nuopponen, A. (2010). Methods of concepts analysis – A comparative study. *LSP Journal*, *1*(1), 4–12.

Overholser, J. (2010). Psychotherapy that strives to encourage social interest: A simulated interview with Alfred Adler. *Journal of Psychotherapy Integration*, *20*(4), 347–363. https://doi.org/10.1037/a0022033

Park, C. L. (2007). Religious and spiritual issues in health and aging. In C. M. Aldwin, C. L. Park, & A. Spiro (Eds.), *Handbook of health psychology and aging* (pp. 313–337). Guilford Press.

Pershing, J. (2002). Using document analysis in analyzing and evaluating performance. *Performance Improvement*, *41*(1), 36–42. https://doi.org/10.1002/pfi.4140410108

Pinquart, M., & Sörensen, S. (2000). Influences of socioeconomic status, social network, and competence on subjective well-being in later life: A meta-analysis. *Psychology and Aging*, *15* (2), 187. https://doi.org/10.1037/0882-7974.15.2.187

Prior, L. (2008). Repositioning documents in social research. *Sociology*, *42*(5), 821–836. https://doi.org/10.1177/0038038508094564

Puchalski, C. M., Vitillo, R., Hull, S. K., & Reller, N. (2014). Improving the spiritual dimension of whole person care: Reaching national and international consensus. *Journal of Palliative Medicine*, *17*(6), 642–656. https://doi.org/10.1089/jpm.2014.9427

Rook, K. S., Mavandadi, S., Sorkin, D. H., & Zettel, L. A. (2007). Optimizing social relationships as a resource for health and well-being in later life. In C. M. Aldwin, C. L. Park, & A. Spiro III (Eds.), *Handbook of health psychology and aging* (pp. 267–285). The Guilford Press.

Sarafino, E. P. (2002). *Health psychology. Biopsychosocial interactions* (4th ed.). John Wiley & Sons Inc.

Seeber, J. J. (2013). Meaning in long term care settings: Victor Frankl´s contribution to gerontology. In M. A. Kimble (Ed.), *Victor Frankl´s contribution to spirituality* (pp. 141–154). Routledge.

Shennan, C., Payne, S., & Fenlon, D. (2011). What is the evidence for the use of mindfulness-based intervention in cancer care? A review. *Psycho-Oncology*, *20*(7), 681–697. https://doi.org/10.1002/pon.1819

Shusterman, R. (2012). *Thinking trough the body. Essays in somaesthetics*. Cambridge University Press.

Siegel, D. J. (2007). *The mindful brain: Reflection and attunement in the cultivation of well-being*. W.W. Norton.

Siegel, D. J. (2012). *The developing mind: How relationships and the brain interact to shape who we are*. Guilford.

Soeng, M., Ambrosia, G. T., & Olendzki, A. (2017). *Older and wiser. Classical Buddhist teachings on aging, sickness, and death*. Barre center for Buddhist studies.

Somaratne, G. A. (2018). Birth, aging and death: Three existential sufferings in early Buddhism. *International Journal of Buddhist Thought and Culture*, *28*(2), 115–145. https://doi.org/10.16893/IJBTC.2018.12.28.2.115

Sommers, F. G. (2013). Mindfulness in love and love making: A way of life. *Sexual and Relationship Therapy*, *28*(1–2), 84–91. https://doi.org/10.1080/14681994.2012.756976

Sun, J. (2014). Mindfulness in context: A historical discourse analysis. *Contemporary Buddhism*, *15*(2), 394–415. https://doi.org/10.1080/14639947.2014.978088

Tornstam, L. (2005). *Gerotranscendence: A developmental theory of positive aging*. Springer.

Walker, A. (2005). A European perspective on quality of life in old age. *European Journal of Ageing*, *2*(1), 2–12. https://doi.org/10.1007/s10433-005-0500-0

Walker, L. O., & Avant, K. C. (2011). *Strategies for theory construction in nursing* (5. uppl. ed.). Pearson.

Wilson, J. (2014). *Mindful America*. Oxford University Press.

Wulff, M. D. (1996). *Psychology of religion. Classic & contemporary*. John Wiley & Sons.
Xu, J. (2010). Logotherapy: A balm of gilead for aging? *Journal of Religion, Spirituality & Aging*, *22*(3), 180–195. https://doi.org/10.1080/15528031003609498
Xu, J. (2018). A tripartite function of mindfulness in adjustment to aging: Acceptance, integration, and transcendence. *The Gerontologist*, *58*(6), 1009–1015. https://doi.org/10.1093/geront/gnx100
Xu, J. (2019). The lived experience of Buddhist-oriented religious coping in late life: Buddhism as a cognitive schema. *Journal of Health Psychology*, 1–12.
Yuen, E. J., & Baime, M. J. (2006). Meditation and healthy aging. In E. R. Mackenzie & B. Rakel (Eds.), *Complementary and alternative medicine for older adults* (pp. 233–279). Springer Publisher.