

What if the Hospital Room were a One Room Schoolhouse: The Environment as Teacher

Author and Presenter:

Susan E. Mazer

smazer@healinghealth.com

Healing HealthCare Systems

775-827-0300

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Being a patient is not part of our human evolution. Rather, it is a circumstance which artificially suspends independence and self-determination. Nonetheless, as a patient, we continue to evolve, to learn, to use all of our senses in defense of our personhood. In this effort, we barter some of our individuality, a large part of our privacy, most of our life-style, and a good chunk of our common-sense know-how, in exchange for care by professionals whose sole role in our lives is to save them.

In the process, sensory capacities are traded for pain relief; the “need to know” is surrendered to medical obedience; indirectly, circumspect observation provides the cues for understanding our own prognosis. With the best of intentions, skills, and knowledge, the healthcare team, physicians and nurses, take on the role of parenting in ways that make us revert to a child-like role, if not one of helplessness, one of compliance.

The role of education (or re-education), becomes the path to a new level of self-reliance and responsibility upon which our life and future depends. The following paper looks at this universal human process of learning through change and adaptation, starting with the brief story of two couples, four individuals, whose last few years of life provide a strong framework for discussion of aging, illness, healthcare experiences, and the environment in which they each occur.

What happened and why it matters

Born in 1919, my father, Al, experienced one World War in which he participated, the great depression, the advent of television and color television, air travel becoming an everyday affair, records, cassette tapes, compact discs, and DVD's, fax machines, computers, dial phones changing to push buttons. He also was married to my mother for 46 years and, following my Mother's death, married to Dottie for 22 years, until his own death. He was a paradox: handsome, macho, impatient, driven, funny, and family-centered, often an insensitive, mean-spirited, and selfish man. Having a brother who became epileptic at the age of 10, in 1935, Al despised the sick, the old, basically, the weak. He held in contempt all that he would eventually become.

In watching him navigate the trials of aging and illness, I witnessed his anger as he tried to compensate for his loss of hearing, his humiliation with incontinence, his dangerous driving, his sense-of-humor replaced by irritability timed to cover his inability to comprehend what was going on around him, his immaculate-care-of-self transformed into sweatshirt tops worn and spotted with food dropped from his fork or his mouth.

I further saw my Dad, once able to add complex numbers in his head, become unable to manipulate a calculator or read his own writing. I watched helplessly as my father was shamed into using Depends® while becoming too stiff

and inflexible to clean or dress himself. An avid newspaper reader, he wanted to read the newspaper and, yet, played with it, upside down, unable to comprehend the confusion he felt.

The hospital room in which he found himself after his quadruple-bypass at the age of 81, was not friendly to him. His bed was near a window overlooking the cement rooftop of the building's lower floors. The patient next to him was older than he was, clearly in pain, and unable to contribute anything but additional frustration. When the nurses came in, they yelled so that my Dad could possibly hear them, but he could not understand them. There was no "nurse" for my Dad, only a series of nurses who would come in to check his vital signs, check the IV, and make sure he was functioning. When it was all over, my father never recalled the room, knew the name of not one person who cared for him, and never wanted to return.

Not the first person I witnessed suffering through the ravages of age-related debilitation and hospitalization, my father followed my husband's parents whose aging years became symptomatic earlier, at a younger age, and lasted longer. My mother-in-law, Latane Bryan Smith, had been long diagnosed as bipolar, requiring institutionalization every few years for a manic episode. Although we thought whatever was wrong could be handled with medication, taking the medication was, itself, humiliating and counter to the ways in which her husband thought life should be. Therefore, whenever she would hit a balance with her doctors, her husband would discourage her with a side remark to the effect that he, himself, would "never take that stuff."

Her long-time personal physician mirrored this denial. He misdiagnosed the symptoms as a B-12 deficiency, would authorize tests to check her lithium balance without ever seriously discussing how she felt, and became the number one co-conspirator in ignoring Latane's mental illness. By the end of her life, physicians had estimated she had had hundreds of Transient Ischemic Attacks (TIA). She could no longer swallow, talk, walk, understand, or remember. Until the last two years of her life, Latane had been a vital, energetic, active woman. As if she had awakened from a long sleep, her last lucid moment was prior to surgery for a broken hip, when she clearly expressed her fear to her son. She died from an infection one month later, at the age of 73. Her mother had lived well into her 90's.

Ossie, my father in law, had it a bit easier than either Latane or my father. He remained good natured. His decline was accompanied by a certain kind of acceptance of life as it changed. Having been a Superior court Judge for 26 years, when he retired at the age of 62, he seemed to relax into a life of less activity, less motivation, fewer things to do...and far less responsibility. Keeping his sense of humor, seeming to no longer want what he could no longer have, his last few years were peaceful.

When Ossie was diagnosed with Chronic Lymphocytic Leukemia (CLL) he did not fully understand what it was. He was subjected to periodic infections, pneumonia, and confusion. As time passed, he had to have transfusions, first once

every other month, then once a month soon to be twice a month, and eventually to once a week. The CLL was not how he died. He died because he died. He had his sense of humor; he was always Judge Smith; he loved his family. And, he was at peace.

Interestingly enough, Ossie's cognitive decline began long before that of either Latane or my Dad. Everyone in the family expected him to die first. He actually died two years after Latane and two years prior to my father, . at the age of 83, in an easy chair watching television. Latane died, frightened and worn out. My father died humiliated most by his own fear. Ossie and Latane had lived in an assisted-living facility for two years, loving it and appreciative of the help they received. My father spoke, with great clarity, only two months prior to his death, saying matter-of-factly, that the only way he would leave the nursing home, that he would "get out" was to die.

The person not yet represented in these stories is Dorothy (Dotty), my father's wife, two years his junior, and the one who took care of him until four months prior to his death. Dorothy, also in her 80's, had been an artist, a photographer, active in the Jewish community, well-read, and very particular about her dress and her home.

As my Dad became less competent, he began to be messy in his eating. Dotty would give him a visual cue to wipe his mouth and, eventually, gave him a napkin-turned-bib to prevent him from soiling himself, which he always did. She would criticize him briskly for not eating her food, for wanting foods that he 'should not' eat, for not being more physically active, for losing his balance (which somehow he was supposed to find), for watching the news, war movies, and basically anything on television (which was "a waste of time"). She also was not happy with him using the computer, being on the internet, playing solitaire, the only game he every played. While a drone of mutual 'do it my way' dictums would come from both of them, the urgency of directives increased in acuity as both of them aged.

My Dad slowed down and began staying close to home, giving up golf and not wanting to go out for anything but dinner. Dotty wanted more mutual stimulation, more intellectual discussions, and more books to talk about between them. She wanted what she had had but could not longer have, while my Dad was trying to hold on to what he could of himself.

The house was immaculate, every piece of furniture in place and every element, including artistic rugs and casual seating, was placed with great care. When my father began falling, the suggestion (imperative) that the throw rugs be removed was met with great distain and resistance. When Dad could no longer get out of bed and a hospital bed was needed, Dotty said she did not want her bedroom "to look like a hospital room". She eventually conceded to removing the top mattress from their platform bed. When the carpeting became stained from a series of bowel accidents, she pleaded for new carpeting, which never happened. Her aging was timed differently than my father's. She was strong, driving,

cognitively intact, and angry at the new reality suggested by moving literally anything, let alone removing even the smallest rug.

Regardless of all of this, my father and Dotty loved each other, bickered throughout their marriage, and counted on each other in ways subtle and not so subtle. Until my father was unable to participate, they traveled together, went to Yiddish classes together, art shows, movies, and enjoyed most of their 22 years of marriage. The enjoyment ended with the dramatic decline of my father and his inability to participate in the activities of their lives. His acute awareness of his situation and his inability to change or effect it cause him great frustration and depression, followed by irritability and impatience with everyone and everything.

Dotty became very active in his care when he entered a nursing home, initially as respite care, eventually because of a fractured hip. He had tried to get out of bed within two hours of entering the nursing home, an event Dotty had warned the staff about. Dotty took on the staff, frustrated with the lack of attention to my father's needs, his bathing, his general hygiene, and the food. Several times she came in to see him after lunch and he had taken off his clothes, was lying naked in bed, and his diaper was needing to be changed. Her experience was almost worse than my Dad's given he was hardly aware of his situation due to medication.

The descriptions of these four individuals, three of whom died within the healthcare system and one who is still alive, is hardly uncommon. Each had been educated, well-read, and independent. Each had become more dependent within a system that could not adapt fully to their personal needs as they would have preferred and as they had lived. More important, however, the whole family learned to deal within a system that could not function without their support. Aunts, cousins, and adult children became the support not only to their loved ones, but also became the caregivers among caregivers.

Aging and Illness: Same and, yet, Different

Each of these four individuals had long and intense experiences in hospitals, clinics, emergency rooms, and doctor's offices. And, each of their experiences were informed by the environments in which they received care. As they awaited care, whether in a hospital bed, seated in chair in a waiting room, disrobing for a physical exam, or having blood drawn, they each used all of their sensory and cognitive capacities to explain and bring meaning to the details of the experience. If they could not understand what was being said to them, they used cues from the environment, from facial expressions, and directly from the context of the event. What they could see made up for what they could not see. They drew from their past experiences to make sense out of confusing and intense situations in the present.

Age and illness can determine that nature of our experiences, how we interpret them and how we respond. Environments are experienced through our perceptions which are the result of sensory input and cognition.

For the purpose of providing a generic starting place, the *Encarta World English Dictionary*, now provided on most home computers, offers common definitions and usage options for the terms under consideration. For example, *aging* (or *aging*) is defined as “the process of changing with time, especially during the later part of life, however the next definition, is “that natural or chemically assisted process of bring foods to maturity or of making materials like wood appear older.” This could also apply to the outcome of severe illness, which may cause premature symptoms of aging, such as confusion, loss of memory, agitation.

Perception, Place, and Meaning

Perception is defined as “the process of using the senses to acquire information about the surrounding environment or situation; the observation or result of the process of perception; an attitude or understanding based on what is observed or thought; the ability to notice or discern things that escape the notice of most people; any of the neurological processes of acquiring and mentally interpreting information from the sense (*Encarta World Library*).” Perception, then, is the conduit between the person and life, physical, social, attitudinal, relational. It is the development of the physiological capacity and the maturation of sensory system, together with increased cognitive capacity to interpret and respond to the environment, that defines development (Baltes, 1990).

Not limited to mechanistic functionality, human beings have the capacity and desire to construct meaning, develop motivation, and reflect, basically human agency (Dai, 2004; Zimmerman, 2004). This said, humans as living, adaptive, and open systems also make self-regulatory changes (Ford, 1992), and develop new patterns of behavior, skills, self-perceptions, values, dispositions, in response to adaptive pressures (Matthews & Zeidner, chap. 6; Zimmerman & Schunk, chap. 12). Such development is the basis for intellectual growth ((Dai, 2004). Subsequently, over time, over a lifetime, as meaning changes, so perceptions change. The ability to interact with the many environments (physical, social, economic, personal) of living is also impacted.

Regardless of the cause, if physical capacity changes and as demonstrable competence redefines itself, adaptation becomes more challenging. The environment and its components take on different meaning.

Environment

This brings us to the definition of *environment*, a term with multiple meanings and comprehensive impact. The *Encarta World Dictionary* states that *environment* means “the natural world within which people, animals, and plants live; all the external factors influencing the life of organisms, such as light or food supply; the conditions that surround people and effect the way they live.”

Herein lays the challenge conditioned by both age and perception. The debate has been between mechanistic and organismic theories which hold the environment as a thing apart from the person, an influential aside, but not more than incidental. Contextualism, however, assumes the person-in-environment to be merged,

inseparable, unified, one impacting and becoming the other. The environment is inclusive of the person. Taken further, the person-as-self is defined by the environment. " ..The whole (person-in-environment system) [can be defined/described as] people embedded in their physical, interpersonal, and sociocultural environments (Craik, 2000).

This symbiosis is further complicated by the resulting perception which uses cognition as its mediator (Craik, 2000). In its most malleable state, the physical environment may be objective, but its meaning mutates, changes, is both subjective and objective, and, in many ways, becomes yardstick of age (Salthouse & Craik, 1991; Schneider & Pichora-Fuller, 2000; Whitbourne, 1996).

“Environments do not change as humans change; they become the evidence of the process of "redevelopment," when the developed adult regresses for lack of capacity from normal aging process (Molnar, 2004).”

These varied definitions of environment and its relationship to the individual leads directly into the question of how the environment interacts with a patient’s need to know what is happening to them. Does the hospital environment become the *thing apart*, an objective system of cues each of which reveal the actual health status of the patient? Does the patient separate specific parts of the hospital room in order to not succumb to the fear that accompanies acute illness?

Aging and Perception: Making Sense out of Sense

Perception takes other turns natural to illness or age. Visual and auditory acuity each take on changes that, in turn, cause a shift in perception. However, these changes often are confused with cognitive decline. Schneider points to the confusion or at least the ambiguity between perception and cognition that makes it difficult to identify which part of information processing is failing (Schneider & Pichora-Fuller, 2000).

The circle is formed this way: Perception informs cognition which informs perception. For example, for an older person to not fall, he or she must call upon visual cues, haptic cues, and proprioception. The well integrated sensory system fluidly moves among its resources to compensate for areas of insensitivity. The sense of hearing, seeing, touch, spatial orientation, balance... if any one of these senses is impaired, the others take on a greater burden.

If an older person is slow to respond to verbal cues, while it may be caused in part by diminished hearing, it could also be caused by slower cognitive processing. "...The fact that an elderly individual has a clinically normal audiogram is no guarantee that there has not been a significant amount of sensory, neural, or sensory-neural degeneration leading to abnormal auditory functioning. Regardless of the cause, however, the very nature of an inability to respond appropriately to normal dialogue, again, becomes the environment in which one ages as much as incontinence does.

Given that development begins with the maturation of the sensory system, it is a turn-about that older adult years evidences maturity as an individual compensates for sensory loss. Baltes claims that wisdom grows with age and

expresses itself in acceptance of non-negotiable physiological deterioration and balancing between cognitive skills by using resources as they exist. "...The older we get, the more the body calls on cognitive resources--for instance, when keeping one's balance or thinking while walking on uneven terrain ((Baltes, 2006)." He goes on to refer to the "mortgaging of the mind," for the sake of making up for sensory loss as being part of the adaptation process.

This said, living with sensory loss in ways unintended becomes the social and interpersonal environment in which an individual lives regardless of their momentary location. Heinz and Browning outline the outcomes of dual sensory loss, specifically visual acuity and hearing impairment. It is not merely a loss of sight and hearing; it is clearly, as described in the chart below, a progressive disruption of social connectedness, self-expression, and participatory living. While not all persons may respond this way, the broad outline of long term outcomes is not uncommon.

Habituation: The alter-ego of perception

The sensory system activates when it is aroused either by new stimuli or a change in extant stimuli. The stress that is experienced when things are new is reduced upon repeated exposure or reduction of intensity of the stimulation. Kastenbaum offers a description of habituation studied in relationship to infant development, continues throughout life. He considers habituation to be requisite in order to free the individual to focus on multiple events, people, ideas, lest the stress from over stimulation be imprisoning. Behaviorists would describe habituation as the decreasing arousal related to repeated exposure to the same stimulus. Basically, what is new and unfamiliar becomes familiar. When something novel to our experience is introduced, the sensory system awakens, alerting us. However, habituation occurs with repeated or continuing exposure. It is, in effect, a desensitization process (Kastenbaum, 1984).

What this means in older adulthood, according to Kastenbaum, is different than at other stages of life. He looks at the intentional clinging to the familiar, the fear of new events (and the stress that accompanies it) as *hyperhabituation*, or the process of treating new stimuli as if they were familiar, having historical responses and meaning rather than being generative. Symptomatically, it looks like "fatigue..., an inability to make certain discriminations among stimuli, and a disposition toward clinging to the past (p. 111)."

If perception is the result of sensation made meaningful, then habituation is, indeed its alter-ego. Hyper-habituation can be described as the imprisonment of the continuity of life as it is halted, frozen in a past, that, in its desire to repeat itself, bars new experiences from being new.

From his theory of hyper-habituation, Kastenbaum offers the following considered definition:

Aging or Oldness is the emerging tendency to over adapt to one's own routines and expectations rather than to adapt flexibly and resourcefully to the world at large. (Kastenbaum, p. 113).

The challenge in this discussion is the dialectic between perception and habituation, security and development, offering comfort to the aging elder while not wanting to render them insensitive to themselves or others, or to the enlivening activities and new events which could be unintentionally rendered irrelevant.

Aging and Environment: What changes?

The interface between person and environment is the sensory system, sensation and cognition. Conscious learning or experiences require the bare signal, triggered by external stimuli, processed by the senses made meaningful by the cognition. "All knowledge takes its place within the horizons opened up by perception (Merleau-Ponty, 2002, p. 241)." Memory plays a role in cognition as a lifetime of experience becomes the frame of reference from which meaning is extracted.

The informational framework used by adults is a complex, layered mix of objective truth based on perception and subjective interpretation of experience. There is an argument to claim that it is all subjective (according to the social constructivist view), especially when memory plays a role. Regardless, the physical environment in which one lives in both its embodiment and its relationship to the person, plays an active role daily life.

The residential environment has a major influence on older people's capacities to remain independent, to participate in the community and to maintain their sense of meaning in life. Housing and the built environment sustain and support human life, and thus directly and indirectly impact on health, social support, absence of disease, quality of life and well-being. Particularly for older people whose mobility is limited, the home environment encompasses the major activities of everyday life such as eating and preparing food, sleeping, socializing and spending time in meaningful ways. (Bridge & Kendig, 2005)

To fully understand the ways in which age and environment each play a role in individual perception relevant to aging and illness, identifying the concerns or challenges does not always result in volitional redesign of living spaces. Urban elders whose homes were part of decades of personal and family history were reluctant to make changes that altered their connection to the past. However, these same homes that were the harbor of safety, security, good health, and familiarity, may imprison the older adult who no longer can manage its unyielding challenges.

In contrast to the urban elder, the rural elder's experience are different by virtue of how community is experienced over a lifetime. Urban sprawl, changes in highways, adding higher speed freeways, loss of open spaces, results in a sense of loss the may be unspoken. While not a great deal of research has compared the rural and urban elder, it may well be that both experience a sense of

“placelessness,” with society moving too fast around them, experiencing profound loss. (Cooke, Martin, Years, & Damhorts, 2007).

Here we can revisit the concept of habituation if only to point out the obvious challenge in wanting to hold on to the stasis of the past (or its illusion), unable to do so for reasons beyond ones control, and being unable to re-develop into a new identity that requires a new space. Age identity certainly plays a role in this process and, as well, the risk of living a life that has little change or has been designed to have little change.

Those who accept as real the stigma of aging are more willing to change behavior than to remodel their homes which could then tell those who visit that they have ‘aged’ or are otherwise less physically able ((Bridge & Kendig, 2005). The collective shame born out of cultural and societal symbols that see age as a bell-curve of incompetence at birth, leading to competence peaking in adulthood, leading to incompetence in later adulthood. The assumption of aging being a social deficit comes in many forms and is depicted in many ways.

...We ... seem to not see older people (over 65, say) as fully functioning and fully endowed citizens. How often do you see older people used to sell products in the media (except Depends, false teeth fastening gel, and vitamins)? How often do you see them portrayed as sexual beings in films or on TV—except as a joke? How many times are elders depicted as heroic? Sometimes it seems as though we regard elders as little more than stumbling, bumbling, dementia-bound burdens on society. The social being of people—the social, historical, contextual content that frame older persons—has been painted in perpetually negative colors. This is a part of ageism (Saleebey, 2001).

Significant in this discussion is the social and political environment that makes it ever more difficult for an older person to easily seek assistance or make necessary changes lest she ‘be found out’ to be older. The harsh reality of Saleebey’s statement is that it represents fears and anxieties that make compensation an admission of weakness or frailty symbolic of one’s own decline. Ageism, if taken literally, suggests that living as an old person is of lesser value than dying as an old person. This would imply that, for the elderly or ‘getting-older’ adults, the fear of living could easily be more than that of dying.

The kinds of visible changes that make obvious the physical decline of an older person may include raised toilets, bars in the bathroom, televisions cranked up so loud that one might think that they were meant to broadcast into the next home. However, behavioral and social modifications may look like irritability, or loss of sense of humor, repetitive discussions, and expressed fears before not mentioned. In the form of out-of-sync dinner discussions, what can look like memory loss, early dementia, or out-right self-centeredness, may easily be loss of hearing undiagnosed and, subsequently, untreated. The auditory environment

plays a dramatic role in relationships and dialogue between family members, including the elder member (Mazer & Smith, 1999).

Not in conflict with Baltes, however, there are competing theories that state that the elder adapts to the environment in ways to maintain continuity rather than instigate change. "...The congruence between individual competencies and environmental demands is fluid, changing as aging individuals' energy and abilities wane. In response to concerns that this model of competence and press portrayed the environment as deterministic and the person as a passive recipient, the environmental proactivity hypothesis was advanced (Lawton, 1989 as cited in (Cooke et al., 2007))." Basically, this theory looks at the challenges of the environment being taken on by the elder who proactively, rather than passively, adapts. "As competence [in managing the environment] increases, a greater proportion of environmental resources becomes available with which the person may interact (M. P. Lawton, 1998)."

The Closed Triangle: Perception and Environment

While our focus has used aging as the constant, with environment and perception being changeable, the relationship between the environment and perception is one that holds perhaps the key to the outcome of inevitable decline or, in the case of patients, recovery.

We have already stated that the perception links the person to the environment through the five senses, and those additional ones, such as balance, and place. However, what happens if perception becomes distorted or the environment, once home and secure, becomes hostile?

After-care, home care, and care-giving at home, are each dependent on a specific successful interface with the immediate environment. Whether taking care of a recovering spouse when recovery will occur over time, or care-giving an elder whose condition is progressive, the challenges of the environment remain almost equal. With both care-receiver and care-giver needing relevant information to navigate through changeable circumstances, telephone conversations, home-health visits, office visits, and hospitalizations become environments of learning.

Learning in Place, Aging in Place: It is the Place...

In response to the resistance of many aging adults to leave their homes of decades and to families for whom the cost of moving an elder is prohibitive, the concept of "aging in place" has become a viable option. M. Powell Lawton has put forth the strongest argument and framework for this practice. Achieving a congruence between the capacity of the individual and the demands of the environment is requisite for this to be possible (M. P. Lawton & Nahemow, 1973). The fluidity and malleability of the space take on critical roles as the capacities of an elder changes over time although the less the individual can adapt, the less environmental options are available.

Recent market changes anticipating the dramatic increase in a 'getting-older' population has resulted in adult communities that provide a full continuum of care. From independent living, to assisted living, and to skilled-nursing, custodial care, these communities offer a one-place-houses-all model so that those who can afford to plan ahead and may not want to age in their existing home can securely move one more time without worrying about having to relocate again.

Looking at this model, however, the aging process remains individual, sometimes optimized by community living and other times succumbing to the stereotypical isolated environments that are supposedly avoided. Furthermore, the task of continuity of development, which is supported by the research done in National Institute on Aging and Dr. Gene Cohen's work, has found that intellectual/cognitive challenge as the antidote to neurological stagnation.

The loss of independence is significant in adult development as other symptoms begin to evolve. Rehabilitation and acute care facilities are relatively short-term residencies. Nonetheless, studies have shown that extended loss of control, lack of anticipated changes or re-establishment of autonomy, can lead to depression (Barder, Slimmer, & Le Sage, 1994). Further, the depression becomes symptomatic of learned-helplessness, increasing over time.

Education and Learned-Helplessness

In learned-helplessness theory, the expectation is that no action will control or affect outcomes now or, perhaps more relevant, in the future (Seligman & Elder, 1986). These symptoms include "passivity, cognitive deficits, and emotional deficits including sadness, anxiety, and hostility, a lowering of aggression, a lowering of appetitive drives, a set of neuro-chemical deficits, and an increase in susceptibility to disease (Seligman & Elder)." Similar to depression, these symptoms, as stated earlier, can become causal in further decline and may accelerate death.

It is not possible to overstate the role effective education plays in countering the kind of powerlessness described. Self-care, participation in one's own recovery, or playing even a small role in making choices are each part of this process.

The impact of the environment, the institutional setting, also plays a role in messaging the lack of power back to its residents. Subsequently, and often not perceived as such, the helplessness becomes the environment of the institution as one person is to another. Human agency is as much dependant upon perceived rights and powers of self-determination as it is upon it being acknowledged in the social and physical milieu of ones life.

In her review of nursing home life, Ice provides some sobering statistics pointing to an improvement in the physical structures, increased regulations, have not dramatically changed the lived-experience for the institutionalized elder. She looks at the daily life of the residents, observing them every 5 minutes for 13 hours. She finds that they spend "56% of their time doing little or nothing in

passive activities, 23% of their time in personal care, and 20% of their time socializing.” She continues describing independent living residents spending approximately 40% of their time in passive activities and 28% of their time in social/expressive activities (Harper, 1998). In a recent study of healthy community-dwelling elders, we found that 38% of participant’s time was spent in social/expressive activities, while 17% was engaged in passive activities (unpublished data) (Ice, 2002).”

During a hospitalization, not unlike the nursing home environment, the environment becomes symptomatic of the diagnosis. It holds not only the physical safety of the patient, but cues as to what “safe” looks and feels like, what is involved in “giving care”, how dignity and independence can be expressed. Furthermore, time spent in a hospital is compressed and is ample enough to foster helplessness and depression in patients of any age.

What Patients Derive from the Environment

Patients begin to make sense about their hospitalization from the environment in the same way that guests determine the values and ethics of their hosts from their homes. Based on the ideas in Brunswik’s (1956) lens model, the Gosling et al. research suggested that “observers use the information available in everyday environments to form impressions of what the occupants of those environments are like”(p. 379). In the case of nurses, physicians, therapists, and others who ostensibly ‘occupy’ the hospital, patients derive their opinions from the place in which care is provided. An argument could also be made, in the case of competence and skill, that a hospital environment that contradicts the objective of medical practice, the confusion and doubt that ensues would extend to the staff.

This is the basis on which patients begin to learn who they are in relationship to their own recovery, who the healthcare professional is and what they represent.

Clearly health care outcomes are a critical dimension in assessing the quality of one’s health care. But the perception of the outcome matters as well. Omachonu (1990) has argued that the quality of health care is not simply a matter of fact; perception is involved because patients may not know the level of care they actually receive. Although the environment matters less than does nursing and other clinical care, it still matters (Harris,McBride,Ross,& Curtis,2002). The Harris et al. research did not look at exteriors but at patient rooms and the areas outside patient rooms (but inside the medical facility). In that research, variables such as interior design, architecture, and the ambient environment were components of environmental satisfaction. Ingham and Spencer (1997) used intervention research to demonstrate that the physical environment can

reduce patient anxiety and affect perceptions of clinical practice.
(2008, Devlin)

Strategies for optimizing the learning environment

Taking into consideration all of the factors stated here, the environment in which information is exchanged between patient/family and patient educator/nurse/physician is an active conduit and participant. Therefore, conditioning the environment to play a positive rather than negative role, is critical. The following factors merely touch the potential for optimizing the environment for learning:

(1) The Environment speaks for values, practices and skills of the provider.

A study in the UK showed hospitals who were perceived or observed to be unclean had a 10% higher rate of infection. Perception of messiness in a hospital is based on observable data: dirty privacy curtains, stains on the ceiling (which are stared at by patients on their backs), dishes left from meal to meal, un-emptied waste paper baskets, stains on furniture. For a patient and family member seeking to trust who is taking care of them, these signs are alarming and cannot be defended. Therefore, the level of competence of the staff members who then take care of now doubtful patients will struggle to be credible.

(2) Distractions put the environment into deficit effectiveness.

Nightingale warned that anything that causes distraction, anticipation and anxiety is “that which damage the patient.” During the 19th century, she had no televisions or cars to pollute the restful quiet of the ‘sick room.’ Today, television is but one technological advance that threatens patient restfulness as it provides needed cognitive engagement and diversion. How to balance these two requirements remains a challenge. The television is a major distraction for patient and provider.

In order to draw more focus onto the subject at hand, as an educator, avoid competing with commercial television programming. Turn the television off or mute the volume. Check the noise levels and be aware of your co-workers and what you hear. Pull the blinds or adjust them if the patient has glare or otherwise is sensitive to light. Be aware of privacy issues and confidentiality risks in an environment that has auditory clutter.

Regarding patient education videos, if they are being shown, the environment need to be conducive to learning. Otherwise, nothing will be gained.

(3) Look directly at the patient, not around, through, or past them.

Many elderly patients listen with their eyes as much as their ears. Speaking from a position when they cannot see you reduces their ability to understand what you are saying.

Furthermore, with noises coming from a variety of sources, gaining and holding the attention of the patient requires *attention to the patient*.

(4) Be as engaged in the discussion as you know the patient needs to be.

Florence Nightingale, in her *Notes on Nursing*, stated empirically that a nurse should speak directly into the eyes of the patient, not from a distance or from behind... She said this not only out of respect for the patients but also out of her knowing that a patient better listens when directly in dialogue than when they are spoken *at*.

(5) Information becomes knowledge only when it is relevant enough to the individual to have meaning.

How any of us translate neutral information into who we are, how we think, and our world view has been theorized in many forms. In the case of how a patient or family uses what they observe and learn from their hospitalization into knowledge clearly the meaning of each factor becomes the determinant. The role of an educator is to marry requisite information to the meaning a patient may attribute to that information. Diet changes, which are the most difficult to impart and sustain, are only meaningful when connected to outcomes that outweigh preference. This is the task of an educator and one also learned by observation.

(6) Knowledge becomes actionable only when it must.

Compliance or adherence to medical directives is still at 50% or lower. In the case of methadone treatment, the option of using and then getting severely ill seems to be successful. However, when the outcome is far more subtle or the incentives seem without value, adherence is more difficult if not totally fruitless. Creating urgency and modeling possibility is within the purview of education and environment.

(7) Patient see, Patient do

The environment is the primary teacher, holding the hand of the patient and family on a 24/7 basis. Patients seek evidence of what is acceptable by looking at the standards practiced in the hospital, clinic and also by how other patients are treated.

Waste disposal verses waste containment is a good example. Dirty needle containers, contaminated waste that sits in the patient's room, regardless of stainless steel receptacles, create a conflict

between urgent cleaning and delay.

(8) Everyone is a patient educator; Every patient is a student

Whether nurse, physician, housekeeper, phlebotomist, therapist, billing clerk, or transport, behavior and dialogue is an exchange of information. Attitude, urgency, meaning, and relevance are all conveyed and tested, looking for both consistencies and inconsistencies.

Summary

We began telling the story of Al, Dotty, Ossie and Latane. It was in the telling of what happened to each of them, that the combined experience of aging and illness became humanized and real. Those that cared for them upon each encounter with the healthcare system attempted to help at the same time that they made assumptions about how much information would actually be helpful. Ultimately, they used their capacity to understand and interact with their environment to deal with what happened to them.

While much more can be and has been said and studied about aging, illness, and environments, perception and self-perception, social and cultural values become powerful contextual determinants the health of patients. The focus of this paper has been to look at the relationship between to these factors regarding how patients learn and respond.

As discussed, perception is a function of neurological systems, cognition, and meaning derived from the lived experience. Perception is ongoing over the life course, with changes being the source of information being processed. Vision is supported by memory and context; hearing is supported by vision; touch or haptic response begins to rely on memory, vision, and any other resource accessible. The sensory system integrates information in ways that create and recreate new environments to the degree an individual can create meaning. This is the underpinning of every hospitalization, with every patient and family member.

All of this being accurate, perception of the external environment is underwritten by the perception of self, the filter through which meaning is derived. For this reason, environments for patients remain a challenge that has yet to fully optimize the capacities of older adults and those of any age regardless of their stage of decline. "People do not grow older in a vacuum, but in a complex environment that is also changing over time. Because an increase of one year in age is necessarily accompanied by an increment of one year in historical time, and because aspects of the environment relevant to cognitive functioning could change over time, a serious confounding may exist between effects attributable to age-related endogenous changes and effects attributable to exogenous changes in the environment. (Salthouse, 1991, p. 84)

Institutions deal with physical and organizational spaces. However, an older

person's world, as described by Erikson and Baltes, is first generated from who they think they are, from their capacity grown over a lifetime to re-develop at each life stage. Therefore, unless the cues in the micro-environment, nearest the individual, supports individual agency, dependence will replace independence in the vacuum of unspoken helplessness.

The nature of the study of how we learn is that it is never conclusive nor does it conclude. Looking at the impact of illness on our capacity to learn, as well as the symbiotic relationship to aging, provides insight to how best to inform and engage patients in their own recovery. Florence Nightingale best described how patients respond to their own need to understand what is happening to them, when she said:

“Irresolution is what all patients dread...they will collect
data and make up their minds themselves.”
--Florence Nightingale

It is because there is this innate craving to understand what is happening to us that the opportunity to educate comes most when challenges like acute illness present themselves. The environment teaches by demonstration; it is the educator that fills in where there are voids. A healing environment replaces a defensive role with one of advocate.

Susan Mazer is the President and CEO of Healing HealthCare Systems, who develops media products and educational programs to assist healthcare organizations in providing healing environments that are directly supportive of recovery. Healing HealthCare Systems is the first producer of the only 24-hour, evidence-based healing environment for patient television, currently working with over 400 hospitals nationwide.

Susan is a member of the Center for Health Design, Society for the Arts in Healthcare, Environmental Design Research Association (EDRA), Association of Healing Healthcare Advocates and Stanford Alumni Association. Her accomplishments include bringing the issue of hospital noise to the forefront of hospital concern through designing accredited educational programs for nurses and presenting at conferences. Susan is a well-published author, having written articles and white papers for major healthcare journals and periodicals focusing on noise in hospitals, speech privacy, elder care, and other related topics. She has also been featured on Good Morning America specifically regarding noise in hospitals.

Susan graduated from Wayne State University and was awarded a graduate fellowship to Stanford University, where she completed her Master of Arts degree. In addition to her work in healthcare, she is a professional jazz harpist, working with her husband Dallas Smith. Their music has been featured on NPR, the Discovery Channel, NOVA. Susan and Dallas are the founders and sponsors of the Elder Care Concert Series in Reno, NV, which is administered by the Sierra Arts Foundation. She is currently pursuing her doctorate in human and organizational development at the Fielding Graduate University. Susan is listed in the Who's Who Among Health Care Facilities Management Professionals in the December, 2007 issue of Facility Care Magazine.

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