

## EDITORIAL

### RESILIENCE

R.M. GUIMARÃES

Corresponding author: Geriatric Medical Centre, Hospital Universitário, Universidade de Brasília, Brasília, Brazil, remaig@uol.com.br

*Our greatest glory is not in never falling, but in rising every time we fall.*

*Confucius*

Common sense poses resilience as the ability to bend but not break, bounce back, and even grow in the face of adverse life experiences. It generally refers to a pattern of functioning indicative of positive adaptation in the context of significant risk or adversity. Thus resilience is not invulnerability to stress or risk but rather a favorable adjustment.

It has been argued recently that the word resilience is almost useless as a single word and that it really only makes sense if we qualify it in the context of individuals, families, organizations, societies, and cultures (1).

Individual resilience is part of day-to-day clinical care, however Viktor Frankl and more recently Stephen Hawking are names not to be forgotten. The Austrian psychiatrist survived as a prisoner of war in Auschwitz to make an outstanding contribution for the care of mental health patients creating logotherapy and also arguing for the pivotal role of the meaning of life in resilience and that it was best to focus on what is left rather than what is lost. Hawking was diagnosed with motor neuron disease at the age of 21 with no more than three years of life to enjoy. He kept working and uncovering the mysteries of the universe for more than 50 years. Both survived stressful situations, however also maintained development in face of adversity.

Some particular protective and resilience-enhancing factors were involved in both cases making them more resilient than others. However, there are individual differences.

Resilience research suggests a potential association with certain psychological and physical characteristics and optimal outcomes, such as higher quality of life, greater happiness, better mental health and wellbeing, successful aging, lower depression, longevity, and reduced mortality risk. Of these, higher quality of life, greater happiness, and lower depression are common outcomes associated with interventions (2).

Whether resilience is a trait that determines a response to adversity or results from environmental engagement are not mutually exclusive propositions. If it is a trait genes are probably involved (3). If resilience is rather a process it can be supposed an interaction with environment resources (e.g., access to supportive relationships, close and nurturing family bonds, quality relationships within the community) not ruling out biological or even genetic contributors. Some people could be

more resilient than others due to better support systems, better opportunities, better DNA, and a host of other non-DNA factors either appearing alone or interacting with one another (1, 4). Ong et cols (5) reported that socially connected individuals displayed less systolic and diastolic blood pressure reactivity on days characterized by high negative emotional arousal. Those high in social connectedness showed greater ability to inhibit the detrimental impact of negative emotion on subsequent cardiovascular responses. These findings remained significant when controlling for other methodological factors known to predict cardiovascular changes (e.g., time of day, trait affect, age, gender, marital status).

Personality assets (e.g., ego resilience, positive self-concepts, hardiness) may also boost resilience. Optimistic people make a subjective estimate of the probability of achieving goals or desired results based on other factors, such as self-efficacy (belief in their own capacity of starting actions, achieving goals and dealing with life) and internal locus of control or contingency (how individuals expect life events or results to be motivated by their actions). Self-efficacy and internal locus of control are psychological factors that support the construct of resilience and are associated with less suffering from the negative effects of stress and burden. Therefore, people with grounded optimism, high level of self-efficacy and internal locus of control may be more resilient to stressful situations, / may reduce vulnerability to burden (6).

It has been shown that those capable of resilience to adversity are people who appear to possess a capacity for behavioral elasticity or flexible adaptation to impinging challenges. The hallmark of this characteristic is the capacity to shape and adapt behavior to the demands of a given stressor event. The process of constructing and reinterpreting past events in light of more recent ones also seems to contribute to developing resilience by helping to clarify the meaning of adverse experiences. This process appears to create a genuine acceptance and distance between the emotional weight of adversity and day-to-day life (7).

However these characteristics are not a lifetime guarantee for resilience since it is defined in terms of the level of adjustment after a stressor event. It cannot be defined in the abstract or applied to individuals in the absence of an extremely aversive experience, such as loss. Resilience is defined as an *ex post facto* (7).

### Resilience in old age

Historically, resilience research has been largely committed to early childhood and adolescence. Successful ageing is supported by vast literature. Resilience in adulthood and later life, by comparison, remains understudied. It seems that those who failed to achieve success do not deserve elegant conferences and enthusiastic applause.

Some old people appear to have the capacity for resilience similar to those who are younger suggesting that resilience may also support longevity (8). Declining health may reduce the quality of life of older people particularly when impairment or functional limitation is present. This is not an unmanageable barrier for well-being, since resilience is not related to disease-specific parameters (9). Some may surrender to minor insults, others like Stephen Hawking, had a superlative life without any voluntary movement.

In some cases religiosity plays an important role in resilience. Generally, positive methods of religious coping (e.g. seeking spiritual support, benevolent religious reappraisals) can improve health. Negative methods of religious coping (e.g. punishing God reappraisal, interpersonal religious discontent) may be predictive of declines in health. Patients who continue to struggle with religious issues over time may be particularly at risk for health-related problems (10).

Resilience in old age must also contemplate the care givers that can be in the same age group of the patient since the activity can be a source of burden. It has been said that when the doctor is examining a patient with Alzheimer disease he is also in front of an additional occult patient, the care giver, who may be anxious, depressed or in pain.

### Medicine and resilience

Doctors wish their patients to be resilient to a long list of adversities as unpleasant symptoms, drug side effects and negative perspectives. Some are sympathetic and helpful, others not so much.

Treatment of depression can be an alternative to reinforce resilience (11), as can palliative medicine and terminal care attenuate suffering associated to the perspective of death.

Nonpharmacological strategies can also improve resilience as is the case of a hospital clown program. It is considered

a vicarious therapeutic because clown figures express their empathy and show through their attitudes and behavior that the child as well as all his/her symptoms in this exposed illness situation are understood and respected. This reinforces the child's self-confidence and belief that he/she can influence the inner affects and can control the course of events in a more humorous way (12).

The same applies to Pet Therapy for institutionalized elderly. The implementation and success of Pet Therapy could have a great emotional and social impact, bringing relief to patients and their family members, but also to health professionals (13).

Successful medical interventions are mainly focused on cure and survival, however, in an aging world it is time to value care and resilience.

### References

1. Southwick SM, Bonanno GA, Masten AM, Panter-Brick C, Yehuda R. Resilience definitions, theory, and challenges: interdisciplinary perspectives. *Eur J Psychotraumatol* 2014; 5:1-14.
2. MacLeod S, Musich S, Hawkins K, Alsgaard K, Wicker ER. The impact of resilience among older adults. *Geriatr Nurs* 2016; 37:266-272.
3. Stein MB, Campbell-Sills L, Gelernter J. Genetic variation in 5HTTLPR is associated with emotional resilience. *Am J Genet B Neuropsychiatr Genet* 2009;150B (7):900-906.
4. Gaffey AE, Bergeman CS, Clark LA, Wirth MM. Aging and the HPA axis: Stress and resilience in older adults. *Neurosci Biobehav Rev* 2016; 68:928-945.
5. Ong AD, Allaire JC. Cardiovascular intraindividual variability in later life: the influence of social connectedness and positive emotions. *Psychol Aging* 2005; 20(3):476-478.
6. Dias R, Santos RL, Sousa MFB, Nogueira MML, Torres B, Belfort T, Dourado MCN. Resilience of caregivers of people with dementia: a systematic review of biological and psychosocial determinants. *Trends Psychiatry Psychother.* 2015; 37: 12-19.
7. Mancini AD, Bonanno GA. Predictors and Parameters of Resilience to Loss: Toward an Individual Differences Model. *J Pers* 2009; 77(6): 1805-1832.
8. Zeng Y, Shen K. Resilience significantly contributes to exceptional longevity. *Curr Gerontol Geriatr Res.* 2010;2010: 525693. doi: 10.1155/2010/525693. Epub 2010 Dec 6.
9. Kubzansky LD, Sparrow D, Vokonas P, Kawachi I. Is the glass half empty or half full? A prospective study of optimism and coronary heart disease in the normative aging study. *Dtsch Med Wochenschr.* 2014;139(12):580-584.
10. Pargament KI, Koenig HG, Tarakeshwar N, Hahn J. Religious coping methods as predictors of psychological, physical and spiritual outcomes among medically ill elderly patients: a two-year longitudinal study. *J Health Psychol* 2004 ;9(6):713-730.
11. Lavretsky H, Siddarth P, Irwin MR. Improving depression and enhancing resilience in family dementia caregivers: a pilot randomized placebo-controlled trial of escitalopram. *Am J Geriatr Psychiatry.* 2010;18(2):154-162.
12. Linge L. Joyful and serious intentions in the work of hospital clowns: A meta-analysis based on a 7-year research project conducted in three parts. *Int J Qual Stud Health Well-being* 2013;8 Issue 1.
13. Sollami A, Gianferrari E, Alfieri M, Artioli G, Taffurelli C. Pet therapy: an effective strategy to care for the elderly? An experimental study in a nursing home. *Acta Biomed* 2017;88(1-S):25-31.