

**Letter to Editor****Surgical Recovery, Stress, and Activities Departments****Celia M Ross\****Founder, Delaware Gerontology Institute, LLC, Delaware, USA***Abstract**

This past week (January 21 to 27, 2018) was National Activity Professional week. Let us consider how activities departments in nursing homes are part of the multidisciplinary team that facilitates healing after surgery.

**Stress Contributes to Slower Healing**

“Look to the nervous system as the key to maximum health.” Galen [1]

Higher levels of psychological stress are associated with slower wound healing, including surgical wounds [2,3,4, 5]. Much has been written about various factors – such as hypothalamic-pituitary-adrenal (HPA) axis dysfunction of the neuroendocrine stress system and the gut-microbiota-brain axis – contributing to the adverse health outcomes associated with chronic stress [6,7,8,9]. In addition, there has been speculation about the role of epigenetics in mind-body medicine [10]. Background note: if the genome is the cell’s cookbook, then the epigenetic markers are sticky-notes telling the chef (cell) how much of which recipes to prepare for the dinner party (current physiological conditions and needs [11]. There are hints that suggest considering circulating microRNAs (c-miRNA) as possibly playing a role in the epigenetics of mind-body medicine. There are indications that c-miRNAs – extracellular miRNAs that are circulating in the blood stream – could be hormone-like regulators of physiology and pathology in that they are produced in one tissue and might exert effects on gene expression in a distant tissue [12,13,14,15,16]. What range of effects might stress-associated c-miRNAs have on physiology? [17,18,19]. Could c-miRNAs be a factor influencing healing? More research needs to be done on many possible aspects of mind-body medicine and healing from surgery.

**Activities Professionals: Key Players in the Interdisciplinary Post-Operative Team**

“Alone we can do so little; together we can do so much”  
Helen Keller [1]

Post-operative rehabilitation often takes place in nursing homes [20]. Rehab units in nursing homes function as a step between the hospital and going home. This is especially important for middle-aged and older patients with underlying conditions that make rehabilitation more complex. A multidisciplinary approach is recommended for facilitating

healing after surgery – including stress management methodology [21,22]. One’s environment influences one’s tendency towards psychological resilience to chronic stressors and in turn physical health and healing. [23,24]. This might be why interventions that promote relaxation, reduce stress, and provide social support appear to aid wound healing [4,5,25]. Might activities departments play a role in this? Activities departments in nursing homes provide a variety of individualized programs – featuring activities that may help support psychological well-being, such as: social support, spiritual wellness, up-lifting entertainment with music and good-natured humor, individualized music programming, nature therapy, opportunities for creative expression, and books for leisure reading [26 ,27,28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45]. More research needs to be done to inform activities professionals and administrators as to the most effective practices, staffing levels, and resources for reducing the stress felt by patients and thus support a healthy environment for healing.

**Conflicts of Interest**

Dr. Ross, PhD, MS is the Founder of the Delaware Gerontology Institute, LLC, which develops products for activities departments. [www.DEGerontology.com](http://www.DEGerontology.com)

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