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When Treatment Involves Dirty Fingernails

Research Finds That Horticulture Therapy Lowers Heart Rate, Improves Mood, Lessens Pain, Aiding in Healing Process

By ANNE MARIE CHAKER

The path to better health, it turns out, may wind through a garden.

A growing number of health-care facilities—from hospitals, to elderly care programs, to mental health institutions—are embracing "horticultural therapy" programs that use gardening as part of their treatments.

Elmhurst Memorial Healthcare, a hospital in Elmhurst, Ill., last year began offering plant therapy for rehab patients, with gardening activities such as hydroponic (no-soil) gardening offered twice a week as part of the menu of programs. Napa Valley Hospice and Adult Day Services in Napa, Calif., offers a weekly horticultural therapy program to frail, elderly clients, who can now plant, weed or snip flowers outside. Program coordinator Anne McMinn says the activities help not only with strength and stamina, but also jog memory, as recollections come more easily in an unthreatening place like the garden. The Orange County Rape Crisis Center in Chapel Hill, N.C., now has a horticulture therapy program that incorporates work with plants—pruning as metaphor for getting rid of bad feelings—into group-therapy sessions.

The moves come at a time of increased public acceptance of alternative medicine, combined with interest in "green" practices of all kinds. Moreover, research is demonstrating how nature contributes to good health. A number of studies have already indicated that just looking at plants or nature can help alleviate stress, perceptions of pain and improve mood among patients. More recently, studies have gone further to indicate that the act of gardening can also have dramatic and restorative effects on health.

A 2005 study of 107 patients published in the *Journal of Cardiopulmonary Rehabilitation* indicated that cardiac rehabilitation patients in a one-hour gardening class clocked in lower heart rates and better dispositions than patients who received a generic patient-education class. Another study, published in 2008 in *HortiTechnology*, showed that 18 residents of an assisted-living facility showed a significant increase in self-rated health and happiness after participating in four horticulture classes. Both appeared in peer-reviewed journals, albeit are small in scale. "We need to learn more," says Roger Ulrich, professor of health facilities design at Texas A&M University.

As the use of horticultural therapy grows, costs of implementing new programs can vary. Some hospitals might build elaborate gardens while at other facilities, the investment might involve as little as potting soil, seeds and some creative volunteers.

Practitioners say that in health-care facilities that can feel stressful and sterile, gardens and plants offer an important respite. "This is a normalizing place," says Gwenn Fried, horticultural therapist at the Rusk Institute of Rehabilitation Medicine at NYU Langone Medical Center. Rusk features a Glass Garden conservatory filled with lush tropical plants, a pond, chatty birds as well as an area where patients work on the mechanics of planting seeds, dividing plants and starting new ones from cuttings. Ms. Fried says the horticultural-therapy sessions can help patients with a wide variety of rehab exercises, such as redeveloping fine motor skills or even cognitive work following neurological surgery.

Darienne Dennis, a former communications director for the American Red Cross of Greater New York, spent the summer of 2008 at Rusk after brain surgery left her unable to walk. After a couple of weeks, she was assigned horticultural therapy as part of her daily rehabilitative exercise regime.

"It can become very tedious, training yourself to do something you used to do without thinking," she says. "Horticultural therapy was a relief from all of that. You're sitting there at a table with a bunch of dirt, a little pot and plants and it feels like, of course, you can do this. And while it was working on eye-hand coordination and motor skills, we weren't talking about it."

Legacy Health System, a nonprofit operator of five hospitals in the Portland, Ore., area, says its gardens have become an integral part of its approach to health-care delivery. That began in 1991 with a "Thursday Garden Club" program for nursing-home residents with dementia, which were essentially social groups with plant-based projects—weeding or planting new beds—out in a garden or sometimes indoors. Soon, it became clear that "there was decreased anxiety, decreased wandering and more focus of attention when we could get them engaged in nature," says Teresia Hazen, the hospital system's coordinator of therapeutic gardens and horticultural therapy programs.

Today, there are nine different therapeutic gardens at the hospitals, about half of which were built in the past five years.

At Legacy Emanuel Medical Center, burn-center patients get wheeled out regularly to a garden specially designed for them. The burn-center garden is designed to stimulate patients' senses and provide a soothing environment. Paths wind around a perennial garden, a fragrant garden and a fountain garden. Covered seating areas and a pergola provide much-needed shade.

"Most hospitals have manicured shrubs and grounds," says Legacy Chief Executive George Brown. "The difference here is the gardens are part of the therapeutic space, where there are patients out in them."

At Legacy Emanuel's Children's Hospital, this month's workshops are centered around the theme of spring. Typically, about 30 patients are divided up into "nature stations," where one group might be studying and dissecting tulips, while another might be looking at the root systems of lettuces.

Sometimes it's enough to just be in the gardens without a program. At the burn center, for instance, most patients are bandaged and not able to putter in soil. But they go out into the garden to walk, build strength and endurance, sometimes with their physical therapist. Or sometimes, "they come out to just sit," says Ms. Hazen, "and think about how they'll get their lives back together again."

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