HOW CAN A MOBILE LIVING WALL IMPROVE THE WELL-BEING AND EMOTIONAL HEALTH IN PALLIATIVE CARE SETTINGS?

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GREEN DESIGN IN PALLIATIVE CARE

ABSTRACT: THIS CAPSTONE EVALUATES THE BENEFITS THAT A MOBILE GREEN WALL CAN HAVE AS A FLEXIBLE APPROACH TO ENHANCING PATIENT WELL-BEING. BY INTRODUCING GREEN DESIGN IN A WAY THAT CAN BE ADAPTED TO VARIOUS SPACES WITHIN A CARE FACILITY, THE RESEARCH ASSESSES ITS POTENTIAL TO ALLEVIATE STRESS AND ANXIETY AMONG PATIENTS. THE CAPSTONE HELPS MOVE TOWARDS A BETTER UNDERSTANDING OF HOW MOBILE GREEN WALLS INFLUENCE MOOD AND STRESS LEVELS, AS WELL AS INSIGHTS INTO THEIR FEASIBILITY IN PALLIATIVE CARE ENVIRONMENTS.

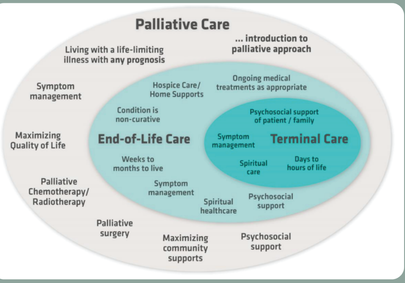

FIGURE 1

SITE

WHO: PATTY APPEL

WHAT: MOBILE LIVING WALL

WHERE:SKILLED NURSING UNIT AT MASON CHRISTIAN VILLAGE

FIGURE 2

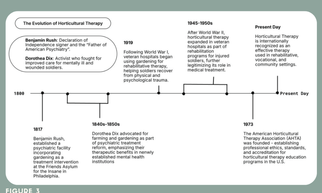

FIGURE 3

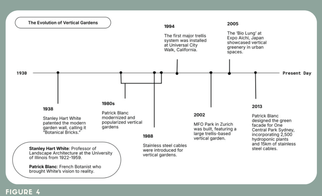

FIGURE 4

CASE STUDY

GREEN DESIGN IN HEALTHCARE PROMOTES THE WELL-BEING OF PATIENTS, STAFF, AND VISITORS BY REDUCING ECOLOGICAL IMPACT AND ENHANCING EMOTIONAL AND SOCIAL HEALTH. BY INTEGRATING NATURE INTO TYPICALLY STERILE ENVIRONMENTS, GREEN DESIGN OFFERS MORE THAN JUST AESTHETICS—IT CONTRIBUTES TO HEALING AND OVERALL WELLNESS. RESEARCH SHOWS THAT EXPOSURE TO NATURE IN HEALTHCARE SETTINGS CAN LOWER STRESS, REDUCE ANXIETY AND BLOOD PRESSURE, AND BOOST POSITIVE EMOTIONS WITHIN MINUTES. NATURAL ELEMENTS LIKE GARDENS AND GREEN VIEWS HAVE ALSO BEEN LINKED TO IMPROVED CLINICAL OUTCOMES, INCLUDING FASTER RECOVERY TIMES, LESS PAIN, AND REDUCED HOSPITAL STAYS, MAKING THEM A COST-EFFECTIVE STRATEGY FOR HEALTHCARE ADMINISTRATORS STRIVING TO BALANCE QUALITY CARE WITH OPERATIONAL COSTS (ULRICH, 2002).

SOLUTION

Figure 1 Senior in an assisted care facility plants mobile living wall planters with assistance as a form of horticulture therapy.

Figure 2 Senior in an assisted care facility waters and tends to the mobile living wall planters as a form of horticulture therapy.

Figure 3 Senior in assisted care facility enjoys the mobile living wall as a form of horticulture therapy.

FIGURE 5-7

HORTICULTURAL THERAPY

HORTICULTURE THERAPY IS A TYPE OF HANDS-ON THERAPY THAT CONSISTS OF THE INTERACTION BETWEEN A PATIENT AND PLANTS WHERE THE ACTIVE PROCESS OF THE TREATMENT PLAN IS CONSIDERED THE THERAPEUTIC ACTIVITY. THROUGH THE USE OF HORTICULTURAL ACTIVITIES THROUGH THIS THERAPY, PATIENTS ARE ABLE TO ACHIEVE SPECIFIC GOALS TO HELP IMPROVE PATIENTS' WELL-BEING AND MOOD WHILE REDUCING ANXIETY, DEPRESSION, AND STRESS. IT HAS SHOWN TO HELP PRESERVE THE QUALITY OF LIFE FOR PATIENTS.

FIGURE 8

FIGURE 9

FIGURE 10

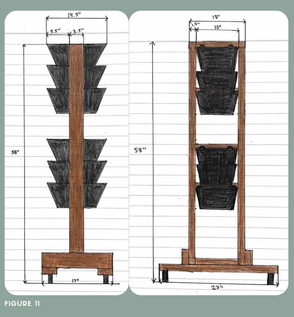

FIGURE 11

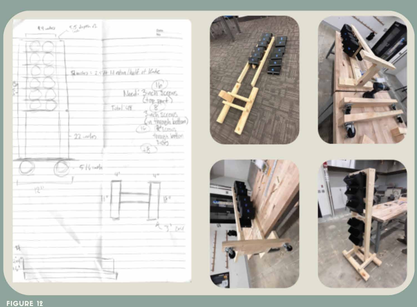

FIGURE 12

SOLUTION

THE MOBILE LIVING WALL OFFERS A FLEXIBLE, ACCESSIBLE SOLUTION FOR BRINGING NATURE INTO PALLIATIVE CARE ENVIRONMENTS. DESIGNED TO FIT WITHIN LIMITED SPACE, IT PROVIDES SENSORY AND EMOTIONAL BENEFITS FOR PATIENTS WHILE BEING EASY FOR STAFF AND VISITORS TO ENGAGE WITH. ITS MOBILITY ALLOWS IT TO BE MOVED BETWEEN ROOMS OR SHARED AMONG RESIDENTS, MAXIMIZING ITS IMPACT. THE STRUCTURE ALSO SUPPORTS SOCIAL INTERACTION, THERAPEUTIC ACTIVITIES, AND THE POTENTIAL FOR LEGACY, AS IT CAN BE PASSED ON, DONATED, OR INCORPORATED INTO A LARGER, PERMANENT GREEN WALL WITHIN THE FACILITY.

THROUGH THIS PROJECT, I LEARNED HOW TO DESIGN A FUNCTIONAL, THERAPEUTIC GREEN SPACE THAT MEETS THE UNIQUE NEEDS OF PALLIATIVE CARE ENVIRONMENTS. I GAINED INSIGHT INTO BALANCING AESTHETICS, MOBILITY, AND ACCESSIBILITY WHILE ALSO CONSIDERING THE EMOTIONAL AND SOCIAL IMPACT ON PATIENTS, FAMILIES, AND STAFF. I ALSO DEVELOPED SKILLS IN PLANNING, ADAPTING TO CONSTRAINTS, AND THINKING CREATIVELY ABOUT SUSTAINABILITY AND LEGACY.
IN THE FUTURE, I CAN IMPROVE BY GATHERING MORE DIRECT FEEDBACK FROM PATIENTS AND CAREGIVERS TO BETTER TAILOR THE DESIGN TO THEIR DAILY NEEDS, EXPLORING MORE DURABLE AND LIGHTWEIGHT MATERIALS FOR EASIER MOBILITY, AND INCORPORATING A WIDER VARIETY OF SENSORY PLANTS. ADDITIONALLY, I HOPE TO ENHANCE THE EDUCATIONAL COMPONENT OF THE PROJECT TO BETTER ENGAGE STAFF AND VISITORS IN THE CARE AND VALUE OF THE LIVING WALL.

FIGURE 13

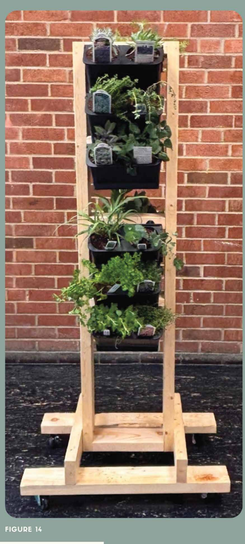

FIGURE 14

Citations:

Figure 1 Palliative care graphic. (n.d.). Providence Healthcare. Retrieved from https://providence.com/healthcare-only/health-services/services/health-support-services/health-education-and

Figure 2 Senior's Guide. (n.d.). The Christian Village at Mason [Photograph]. Senior's Guide. Retrieved from https://www.seniorsguide.com/listings/senior-living/illinois/mason/the-christian-village-at-mason/

Figure 3 Appel, Katie (2025). Timeline. Google Slides. Information from Tenolle, n.d. and Altschuler & Whitaker 2020

Figure 4 Appel, Katie (2025). Timeline. Google Slides. Information from American Horticultural Therapy Association, 1987

Figure 5 Berrones, I. E. (2024, June 20). Horticulture therapy blossoms at LSS. LinkedIn. https://www.linkedin.com/pulse/horticulture-therapy-blossoms-lss-lutheransservicesinsten-ivette-

Figure 6 Kelton. (2024, July 11). Benefits of horticulture therapy for dementia patients. Terra Vista of Oakbrook Terrace. https://www.terravistaoakbrook.com/blog/benefits-of-gardening-horticulture-therapy-for-dementia/

Figure 7 Therapeutic horticulture. (Senior Botanic Gardens, (n.d.-a). https://www.seniorsgardens.org/our-impact/therapeutic-horticulture

Figure 8 Appel, K. (2025). Plant Chart. Google Slides. Information from Wagners, 2022 and Harris Seeds. n.d.

Figure 9 Mobile Living Wall Dimensions. Hand drawn by Appel, Katie. April 19, 2025

Figure 10 Plants for Mobile Living Wall in Mixture Planters. Photo by Appel, Katie. April 5, 2025

Figure 11 Planting Station. Photo by Appel, Katie. April 5, 2025

Figure 12 Appel, K. (2025). Construction Details and Documents. Google Slides.

Figure 13 (Appel, Katie. April 11,2025.)

Figure 14 (Appel, Katie. April 11,2025.)