



## **IMPACT OF HORTICULTURAL THERAPY ON PSYCHOSOCIAL FUNCTIONING AMONG URBAN JAIL INMATES**

Authors: Jay S. Rice and Linda L. Remy

Year of Publication: 1998

Country of Study: USA

Search Related Keywords: Jail inmate; Horticulture Therapy; Inner City Jail; Jail Design

### **DESIGN ISSUE**

The authors of this study identified a lack of statistical evaluations of horticulture programs in the scholarly literature. Thus, the objective of this study was to provide an empirical evaluation of a horticulture therapy program in an inner-city jail. It specifically focused on the psychosocial functioning of jail inmates in a correctional facility operated by the San Francisco Sheriff's Department. The key issue was whether access to gardening in correctional facilities has positive effects.

### **BACKGROUND**

The origins of horticultural therapy programs date back to the last decade of the 19<sup>th</sup> Century when children in an impoverished area of New York were encouraged to plant flowers in window boxes to offset the overbearing smell of sewage. Gradually urban horticultural programs began to contribute to community efforts to counter vandalism, rehabilitate slums, and enhance self-worth and pride. Such programs were also initiated in inner city prisons as a therapeutic effort.

The horticultural therapy project in the San Francisco Sheriff's Department specifically aimed to nurture within inmates a sense of direction, belongingness, and ability to connect with the human community. According to the authors, most inmates consider the prospect of returning to the community after incarceration as formidable.

The hypothesis of the study was that the restorative environment, learning and group experience provided by the horticultural therapy program, known as the garden project, is likely to help the inner city jail inmates to contemplate their past, and to redirect attentions and energies to reshape their life on release. The garden project involved unused farmland belonging to the jail, where inmates engaged in organic gardening. During the time of the study, inmates worked on the farmland from 8:30 am to 2:00 pm. The syllabus included group discussions, instructions on organic gardening, and hands-on supervised work in the field.

### **RESEARCH METHOD**

A longitudinal design was adopted for the study. Of the 330 inmates present in the facility at the time of study, a total sample of 48 inmates was randomly assigned to the garden project or to other new therapeutic programs. Inmates were serving sentences for drug or drug-related charges. Most of



## **IMPACT OF HORTICULTURAL THERAPY ON PSYCHOSOCIAL FUNCTIONING AMONG URBAN JAIL INMATES**

them came from seven low-income neighborhoods in the city. Except for six subjects, all inmates were less than 30 years in age. The majority of the inmates were unemployed high school drop outs.

Data were collected from the inmate participants via questionnaires and interviews at three points – admission (baseline), discharge and at least three months after discharge. The questionnaires addressed violence history, family background, drug use history, and psychosocial functioning. The study also obtained data that reflected parental stability and victimization during childhood, depression, hostility, risk-taking, and the desire to seek help. The data were analyzed statistically to compare the two therapeutic programs and to evaluate the effectiveness of the garden project.

### **FINDINGS**

Overall, three effects of horticulture therapy were retained until the post-discharge data point: (1) lower depression in inmates with emotionally detached mothers; subjects with attached mothers were not depressed at baseline and did not show any change over time; (2) reduction in the number of substances abused; and (3) sustaining the desire to seek help. However, the authors note that the continuation of the benefits is dependent on follow-up support through case management.

Although inmates in both treatment programs decreased drug used after release, garden project inmates reported the greatest decrease.

Females with emotionally detached mothers and more extensive criminal histories experienced higher levels of depression. The depression decreased after partaking in both therapeutic programs, with garden project participants showing the most improvement after three months.

Childhood abuse and injury was the greatest predictor of hostility as seen in the number of crimes committed. White participants in the garden project exhibited less hostility on release and follow-up, whereas African-American participants were slightly more hostile when released, but less so after three months.

White garden project participants, originally high risk takers, showed less inclination at the time of release to indulge in risky behaviors, but reverted to their previous behavior at follow-up. African-Americans were less inclined to partake in risky behaviors even after three months.

As compared to inmates in the standard treatment programs, inmates in the garden project retained a greater desire to seek help after three months of release.

As a result of these findings, the authors observed that horticultural therapy affected white and African- American inmates in different ways.

### **IMPLICATIONS FOR DESIGN PRACTICE**



## IMPACT OF HORTICULTURAL THERAPY ON PSYCHOSOCIAL FUNCTIONING AMONG URBAN JAIL INMATES

For design teams embarking on a new or renovation correctional facility project, consider the following:

- Incorporate space programs and policies to include horticulture therapy programs within the facility premises (if the site is large enough), with careful attention to security concerns.
- Examine the possibility of locating the garden to optimize view of the green space from within the secure jail environment.
- Examine the placement of the horticulture area in relation to inmate housing areas, from the perspective that visual connectivity to one's garden area may enhance the positive influences witnessed in these studies.
- Bring to the client's attention issues pertaining to case management during inmates' transition back to the community, to retain the positive influences.

### LIMITATIONS

The study findings may be limited to inmates with drug or drug related offences; the impact of horticulture therapy on other types of inmate population is not demonstrated in this study.

### ADAPTED FROM

**Authors:** Jay S. Rice, Program Consultant, San Francisco Sheriff's Department and Linda L. Remy, Principal Research Analyst, Health Economics Research Group, Institute of Health Policy Studies, University of California, San Francisco.

**Article Title:** Impact of Horticultural Therapy on Psychosocial Functioning Among Urban Jail Inmates

**Publisher:** The Haworth Press, Inc.

**Publication:** Journal of Offender Rehabilitation

**Publication Type:** Peer reviewed

**Funder/Sponsor:** William Alexander Gerbode Foundation, Bothin Foundation, and San Francisco Sheriff's Department Inmate Welfare Fund.

**Date of Publication:** 1998

**Volume:** 2

**Issue:** 3/4

**Pages:** 169-191

**Summary credits:** Debajyoti Pati, Kate Haenchen and Sipra Pati © 2012 Texas Tech University



## IMPACT OF HORTICULTURAL THERAPY ON PSYCHOSOCIAL FUNCTIONING AMONG URBAN JAIL INMATES

---

**NOTICE AND DISCLAIMER:** *Applicability of research studies varies depending on the context. Before attempting to apply findings that are summarized here, readers should refer to the entire original research paper or article and consider the extent to which findings may be applicable to their own unique context and facts. Outcomes may vary depending on multiple factors. The American Institute of Architects, Texas Tech University and the authors of this research summary neither guarantee, nor assume responsibility for any specific outcomes. The information provided herein is for educational purposes only and does not constitute professional advice.*

**Full article available at:** [http://www.tandfonline.com/doi/abs/10.1300/J076v26n03\\_10#preview](http://www.tandfonline.com/doi/abs/10.1300/J076v26n03_10#preview)  
View additional research summaries at <http://www.aia.org/aaj>