

# Promoting a Wellness Program for Incarcerated Women: A Focus on Weight Loss and Exercise

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# Background Information

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This Doctorate of Nursing Practice (DNP) process improvement project focuses on creating wellness program for the nurses at a woman's correctional institute.

Incarcerated women are gaining weight due to unhealthy diets and lack of exercise, which contributes to chronic diseases.

Healthcare providers in the women's prison are not routinely providing counsel or health education for this vulnerable population.

More than 200,000 American women are serving criminal sentences (Gates & Bradford, 2014).

56.6 % of inmates are overweight or obese (Martinez-Vincente, Baile, and Gonzalez-Calderon 2014).

In 2008, the medical costs associated with obesity were estimated to be \$147 billion (Center for Disease Control and Prevention [CDC], 2015).

A study by Harding et al. (2014) found that if a newly released inmate is unable to work because of obesity related diseases, their family members may try to stretch public benefits such as section 8 housing, social security, and temporary assistance for needy families. This suggests that obese prisoner reentry is placing additional burdens on public benefits and society (Harding et al., 2014).

# Purpose

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The purpose of this project was to design a comprehensive wellness program with a focus on nutrition and exercise to reduce the trend of weight gain and obesity while women are incarcerated in prisons, improve the knowledge, skills, and attitudes (KSA) of health care providers, and promote advocacy.

# Project Question

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Will designing and implementing a wellness program with a focus on nutrition and exercise prevent the obesity trend, improve the nurses KSAs, and initiate a trend for wellness programs and advocacy in the NJ women's prison system?

# Project Objectives

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Design a comprehensive wellness program with a focus on nutrition and exercise for incarcerated women that can be built upon to add future wellness components

Educate interdisciplinary staff in the wellness program and how to implement based on examination findings

Assess the nurses' knowledge of nutrition and physical activity guidelines

Evaluate staff compliance with the program by observing how the nurses run the program and how many referrals they order for the wellness program

# Review Synthesis

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**Impact of the  
problem**

**Current  
Management**

**Current  
Recommendations**

**Benefits of  
Current  
Recommendations**

**Addressing the  
Problem with  
Current Evidence**



# Review Synthesis

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## Impact of the problem

- Obesity
  - Obesity amongst imprisoned women is more prevalent than in men, although men are more likely to be overweight, and women in prison are more likely to be obese than women who are not incarcerated ([Maruschak, Berzofsky, & Unangst, 2015](#); [Leigey & Johnston, 2015](#); [Centers for Disease Control and Prevention, 2017](#); [Drach et al., 2016](#)).
  - The statistics show 56.6 % of inmates are overweight or obese (Martínez-Vicente, Baile, & González-Calderón, 2014).

## Chronic medical conditions

- There is an increasing and elevated number of chronic medical conditions in criminal justice populations relative to those in general society. Prevalence of these conditions, including hypertension and arthritis, which are especially high among elderly and female prisoners and jail inmates (Harzke & Pruitt, 2018).



# Review Synthesis

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## Current Management

The prison system does not have a formal exercise or nutrition plan in place.

Menus in the prison system contained higher levels of cholesterol, sodium, and sugar compared to Dietary Reference Intake and the caloric count of the meals was above female needs based on standard reference females (Cook, Lee, White, and Gropper, 2015 and Collins and Thomas, 2015).

Most prisons do not have a policy regarding practice of safe and effective strength training techniques, but it is recommended that qualified supervision be present inside all correctional strength training facilities (Amtmann, Berryman, & Fisher, 2003).

Free exercise time is encouraged, but most of the women use the time to talk or just sit around.





# Review Synthesis

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## Current Recommendations

Implement prevention and/or intervention programs (Lagarrigue, Ajana, Capuron, Féart, & Moisan, 2017).

Obesity should be better surveyed so that it can be treated in prison, especially for female inmates (Lagarrigue, Ajana, Capuron, Féart, & Moisan, 2017).

Adults should do at least 150 minutes to 300 minutes a week of moderate-intensity, or 75 minutes to 150 minutes a week of vigorous-intensity aerobic physical activity, or an equivalent combination of moderate- and vigorous-intensity aerobic activity (The American Heart Association, 2018).

The 2015–2020 Dietary Guidelines for Americans recommends that the diet choices focus on variety, nutrient density, and quantity. Additional recommendations include limiting calories from added sugars and saturated fats and reducing sodium intake.

The literature to support nutritional interventions to decrease weight in nonincarcerated people is vast ([Ammerman, Lindquist, Lohr, & Hersey, 2002](#); [Oldroyd, Burns, Lucas, Haikerwal, & Waters, 2008](#); [Shaikh, Yarooh, Nebeling, Yeh, & Resnicow, 2008](#)).



# Review Synthesis

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## Addressing the Problem with Current Evidence

- Correction centers should be more involved in local and national quality improvement efforts (Binswanger, Kreuger, & Steiner, 2009).
- Cardiovascular exercise to promote and maintain health, combined with optimal caloric expenditure, will help to reduce the incidence of obesity (Battaglia et al., 2013).
- Current evidence of obesity in the prison system is supported by the policy recommendations for improving chronic medical conditions in the imprisoned population, provision of healthcare in correctional settings, and post-release continuity of care and community reentry (Harzke, & Pruitt, 2018).



# Review Synthesis

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## **Benefits of Current Recommendations of implementing a comprehensive physical fitness and nutrition program in the prison system:**

- Decreased weight of the women who are incarcerated
- Decreased healthcare spending
- Improved quality of life for those who are incarcerated.

# Summary of Project Overview

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The design of this program included collaborating with the dietician to assess and make changes to the menu, collaborating with the activity director to schedule exercise time for the women, and collaborating with leadership to create a referral program for the women to the program. Education was provided to nurses at the facility on nutrition and exercise. The nurses then implemented the program with the women during intake and routine care visits and provided education on nutrition and exercise as a preventative/intervention strategy to improve the health of the women.

# Project Design

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The quality improvement nursing practice change was to provide a foundational wellness program with a focus on nutrition and exercise for the incarcerated women in collaboration with all healthcare providers involved in this project site.

The project objectives will be accomplished by designing a nutrition and exercise program to be implemented by nursing staff. Education will be provided to the nursing staff regarding this new wellness program.



# Project Design

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The project site is a 909-bed institution with the ability to house 1,000 females in Clinton, New Jersey.

The project site houses a vulnerable population of incarcerated women ages 16 or older with various sentence lengths from months to life.

There are various departments ranging from maximum security to minimum security and women who are in the prison infirmary as permanent housing. The nurses rotate from the infirmary, chronic care clinic visits, urgent care visits, and annual checkup appointments.

The conference room space where the nurses received their education seats approximately fifteen to twenty people around a table.

The hands-on part education took place in the fitness area with treadmills, weights, and various other exercise equipment.

There is also a “yard” for walking, running, and other aerobic activity.



# Project Design

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## **Population of Interest**

The prison nursing staff is composed of approximately 10 registered nurses and 20 licensed practical nurses who work dayshift.

More than half of the nurses have worked in corrections for more than 15 years.

The nurses have rotating schedules with every department within the prison system. Therefore, all nurses that will be implementing the wellness program will be included.

All nurses had basic nutrition classes incorporated into their education, but have not had a protocol to teach the women about nutrition and physical activity.

Participation in this DNP project was mandated thus, all nurses employed on the dayshift at the practice site will be included.

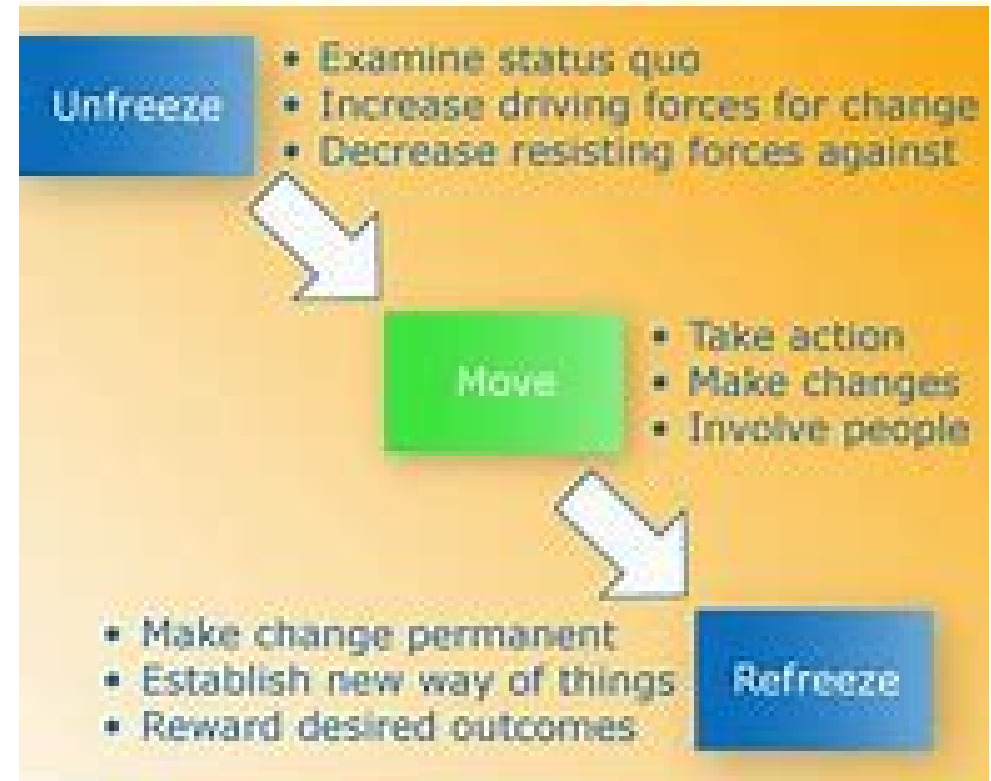
Excluded from this project was the nursing administration, the medical director, activity director, night shift nurses, temporary nursing staff and any nurses or dieticians who are on excused leave.

# Lewin's Change Theory

Lewin's Change Management theory was used to support the nurses through the transition of learning and implementing the new program.

There are three concepts of the Change Theory: unfreezing, moving, and refreezing.

These three concepts are applied to the process of change by creating an awareness that the current state is no longer acceptable, implementing the change, and then reinforcing the change so it becomes the accepted way to practice in the organization.





# Driving and Restraining Forces

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**Driving forces:** The leadership team and the scholarly evidence.

**Restraining forces.** The restraining forces were the dietary budget, staff who are uneager to learn a new program, previous failed attempts at physical activity programs, and under motivated staff.



# Project Design

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## Collaboration occurred with

- The dietician who assessed the menus and made suggestions for designing a healthier menu
- The activity director who will oversee the exercises in the fitness center.
- Staff nurses were responsible for learning the content and instructing the inmates
- The leadership team determined this project was feasible to transfer to other women's prisons.

# Project Design

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## Recruitment Methods

This project was approved by the director of nursing for the New Jersey State Prison System.

All day shift nursing staff were mandated to participate.

The nurses signed up to attend the education sessions by the project lead in collaboration with the nursing supervisor.





# Project Design

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## **Protection of the participants**

Includes employing a system where their names are not associated with any of the data by assigning each nurse a unique number that only the project lead will know.

When the nurses came to the education session they signed in with their unique number.

The numbers, associated nurses' names, and sign in log will be kept in the nursing supervisor's office in a locked cabinet that only the project lead has access to.

This project includes an education initiative leading to a system wide practice change that poses no risk to the nurses' job or person.



# Education on the Program for the Nurses

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A PowerPoint presentation provided the required information for nurses to impart to the inmates.

The PowerPoint education session for the nurses included the federal dietary guidelines and the physical activity guidelines for Americans. They were both utilized to provide current evidence-based recommendations for the incarcerated women in the care of the women's prison system. The education sessions were offered to the nurses five times.



# Project Design

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## Data Tracking

The nurses' knowledge and skills were tested pre and post educational session.

The nurses competency on the education was monitored via observation of a teach back demonstration and use of a checklist.

Compliance to the nursing practice change was tracked via a manual log of the sessions the nurses taught.

# Discussion of Results

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As expected, the analysis of the data collection confirms that the nurse's knowledge, measured by the pre and post-test, increased after the education on the physical activity and nutrition program.

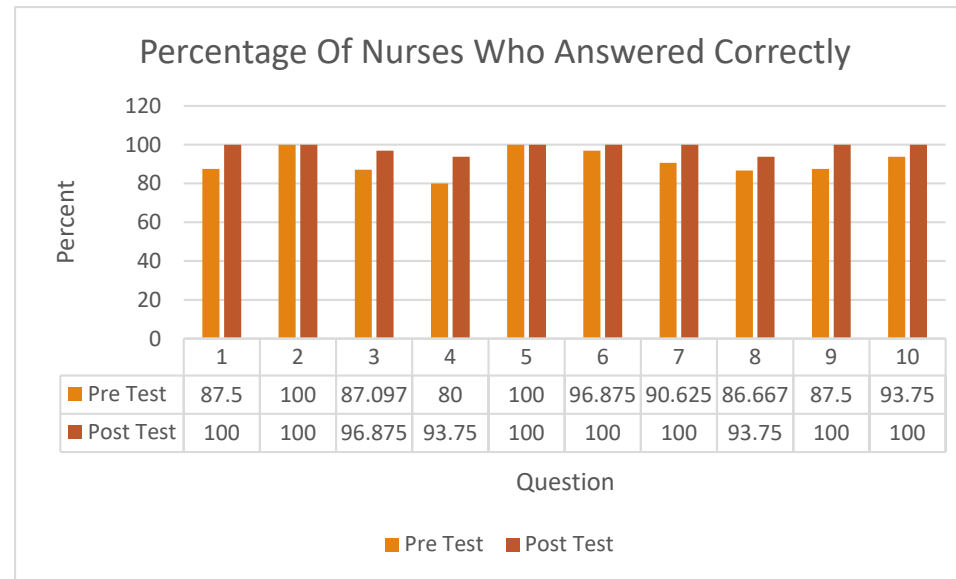
The provider competency which was a measure of the tenants the nurses addressed during their teach-back demonstration of the program revealed that the nurses failed to assess the women's knowledge in physical activity and nutrition.

Compliance tracking suggested that the nurses provided psycho-education more frequently than demonstrating the skills.



# Pre and Post Test Results

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# Competency Assessment

Competency	n (%)
1. Assesses the woman's nutrition and physical activity knowledge	0
1. Assesses the woman's current nutrition and physical activity habits	0
1. Educated the woman on risk factors associated with poor nutrition and inactivity	0
1. Educated the woman on what a calorie is	13 (40.6%)
1. Educated the woman on sodium intake	15 (46.9%)
1. Educated the woman on healthy food options	2 (6.3%)
1. Educated the woman on physical activity benefits	2 (6.3%)
1. Educated the woman with a return demonstration on at least four activities the woman can do in their cell	11 (34.4%)
1. Educated the woman on activities they can do in the fitness center and when they can access the fitness center	10 (31.3%)
1. Asked the woman for a return teach-back on three main points about nutrition	5 (15.6%)

Table 2. Number of nurses who endorsed competence in each area (N = 32)



# Compliance

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Compliance Items	n (%)
1. Provided education provided on physical activity	22 (64.7%)
2. Provided education on nutrition	22 (64.7%)
3. Demonstrated exercises for fitness room	7 (20.6%)
4. Demonstrated exercises that could be performed in cell	5 (14.7%)

*Number of nurses who did adhere to intervention during visits (N = 34 observations)*

# Significance to the Profession

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This is a foundational program that will allow the addition of other health and wellness topics to be provided to this vulnerable population.

It will positively impact nursing as a profession due to the fact that this program was designed by a nurse to provide innovation to a forgotten venue, the prison system.

It confirms that nurses are in many diverse settings and can develop health programs to be implemented by other nurses at the point of care.

This absolutely impacts health promotion and patient outcomes in order to potentially reduce healthcare costs and promote quality care delivery in all areas of nursing.

# Limitations

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## **Project Design**

The lack of research available on nutrition and physical education programs run by nurses for incarcerated women.

## **Recruitment Methods**

The rotating workflow model of the nurses

Time constraints to provide the education to the nurses

## **Data Collection Methods**

Shorter than desired

No long-term data collection to assess how prevalent the education on the program remains.

## **Data Analysis**

Does not decipher which nurses were noncompliant.

Does not reveal how many times each nurse was observed for compliance and there may be some nurses who were not observed at all.



# Dissemination

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One of the anticipated outcomes for this project was the implication for correctional nurses to improve the health for their inmates.

This scholarly project was developed, implemented, completed, and evaluated in accordance to the nurse leadership doctoral program at Touro University, Nevada.

Dissemination of the project will be delivered to the project site organization, Touro student colleagues, Touro instructors and stakeholders by a Power Point presentation.

I will be submitting my paper and presentation to the ICPNH 2021: 15. International Conference on Prison Nursing and Healthcare. It will be held on August 09-10, 2021 in New York, United States.

Additionally, the project will be submitted to the DNP repository.

The deliverance of this project planning, programing, implementation, and evaluation will allow for nurses to learn about the process of designing a nutrition and physical activity program for a correctional facility.

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