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

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Date of Submission: January 15, 2020

In partial fulfillment of the requirements for the Doctor of Nursing Practice

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Abstract

This Doctorate of Nursing Practice (DNP) process improvement project focuses on creating wellness program for the nurses at a woman's correctional institute to implement for the incarcerated women. Incarcerated women are gaining weight due to unhealthy diets and lack of exercise, which leads to further illnesses. Healthcare providers in the women's prison are not routinely providing counsel or education for this vulnerable population. 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. The methods used in this project were to use Lewin's Change Management theory to support the nurses through the transition. A PowerPoint presentation to educate was designed and provided, a pre and post-test was designed and administered to the participants to assess for a knowledge change after the implementation of education, and a competency and compliance audit was conducted. 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. This program will be considered the foundation for wellness programs offered in women's prisons nationally with the expectation to offer additional wellness and healthy lifestyle projects to improve the health of this vulnerable population.

Keywords: Wellness program, quality improvement, prisons, nutrition, physical activity

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

It is challenging for offenders to maintain or improve their health because of the social and structural environment in prison that contributes to obesity. The schedule set forth by the authorities restricts the free movement and the physical environment limits the ability to easily exercise (Stürup-Toft, O'Moore, & Plugge, 2018). The women are served pre-selected food that is on a rotating schedule in the cafeteria. State facility caloric intake is based on state legislatures (Spark, 2007). This food is fairly nutritious, consisting of protein, a vegetable, a grain, and usually a fruit, but the produce is usually canned and the meals contain a lot of starches. The inmates also have access to the commissary where they can purchase foods of their choice with their own funds (Rybicki & Fillmore, 2015). Studies have found that inmates use junk food from the commissary as part of the prison micro-economy as currency in exchange for services and gambling (Renaud, 2017).

The prevalence of obesity in prisons varies based on where the research was conducted. Martinez-Vincente, Baile, and Gonzalez-Calderon (2014) found 56.6 % of inmates are overweight or obese. Currently, there are approximately 170 women's prisons in the country, and more than 200,000 American women serving criminal sentences; the majority are for non-violent offenses (Gates & Bradford, 2014). The cells may house anywhere from two to twenty women (Gates & Bradford, 2014). There is significant overcrowding and very little focus on rehabilitation (Gates & Bradford, 2014). Therefore, wellness programs are not considered to be of benefit or of use in this environment. Many offenders are released and reintegrated into the general population each day; unmanaged obesity during incarceration presents a potential public health resource issue once inmates are reintegrated into society (Gates & Bradford, 2014). There is a need for intervention because obesity contributes to chronic diseases that pose increased

morbidity and mortality risk for the individual, but also a great expense to society. Almost all of those conditions could be prevented or lessened in severity with proper nutrition and exercise.

The cost of obesity is multi-faceted. In 2008, the medical costs associated with obesity were estimated to be $147 billion (Center for Disease Control and Prevention [CDC], 2015). Obesity contributes to chronic diseases such as hypertension, diabetes mellitus, coronary disease, and peripheral vascular disease. In 2012, the total estimated cost of diagnosed diabetes was $245 billion, including $176 billion in direct medical costs and $69 billion in decreased productivity (CDC, 2015). There is a financial drain on organizations that employ obese individuals. There is evidence of increased absenteeism because of obesity related complications. In regards to value of lost work, the average cost of obesity-related loss of productivity is $30 billion (Serxner et al., 2001). Obesity-related absenteeism costs employers $6.4 billion per year in productivity, insurance premiums, compensations, and lower wages (Serxner et al., 2001). Tsai et al. (2008) found that at Shell Oil Company, 3.73 additional days of work were lost per year for each obese employee compared to their normal-weight co-workers. Serxner et al. (2001) reports that employees considered at risk for obesity were 1.23 times more likely to be in the 'high-absenteeism' group than those who were not; obese workers were 194% more likely to use paid time off than their counterparts. 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).

This prison system is charged with not only holding the incarcerated accountable for the crimes they commit, but also to encourage rehabilitation per the supervisor of nursing. The

practice site is committed to prepare incarcerated women to become productive members of society once they are reintegrated with the general public. The New Jersey (NJ) women's prison would not only like to see the inmate's function once reintegrated but to thrive in personal health and in a career. To combat obesity in a women's prison this project will be designing and implementing a comprehensive wellness program focused on improving the overall physical health of the women who are incarcerated starting with balanced nutrition and exercise. This wellness program will be the template that will enable growth to include possible future wellness courses such as smoking cessation. This wellness program will consist of educating the inmates, utilizing the exercise equipment in the fitness room, providing access to the fitness room three days a week. A support group will also be developed and offered weekly with the presence of a counselor.

Background

Obesity and being overweight are considered a worldwide health problem. Obesity is the most important nutritional disease in developed and developing countries (Khodaveisi, Omidi, Farokhi, & Soltanian, 2017). It is estimated that 80% of premature stroke, heart disease, type 2 diabetes, as well as 40% of cancers can be avoided through healthy diet, regular physical activity, and avoidance of tobacco use (Vukmirovic, 2015). Not only does obesity have serious health risks it also is impacting people's ability to work, the cost of insurance, and lost wages (Batsis & Bynum, 2016). Secondary to obesity, illness and disability have a negative impact on the United Sates (U.S.) healthcare system (U.S. Department of Health and Human Services, 2001. The direct medical costs associated with obesity may include preventive, diagnostic, and treatment services related to obesity while the indirect costs relate to morbidity and mortality costs including productivity (CDC , 2017).

The literature supports aerobic exercises combined with recommendations to consume a balanced diet, which could have beneficial effects on lipid and lipoprotein concentrations in adults (Kelley, Kelley, Roberts, Haskell, 2011). Johnson et al. (2018), found that inmates who gained the most weight (over 34 pounds) during incarceration reported not eating vegetables and inmates who gained greater than 31 pounds, but less than 34 pounds reported not eating fruit. At the federal level prepared meals adhere to the Institute of Medicine's (IOM) recommended dietary reference intakes (Spark 2007; Institution of Medicine [IOM], 2005).

Johnson et al. (2018) makes the recommendation that food intake during incarceration is a modifiable risk factor that could be the target of weight management interventions with inmates. The quantitative study by Battaglia et al. (2013) sought to determine which type of physical activity could be useful to inmate populations to improve their health status and fitness levels. They found that cardiovascular exercise increased aerobic capacity, which promotes and maintains health, and an optimal caloric expenditure thus helping to reduce the incidence of obesity (Battaglia et al., 2013).

Dieticians have many roles in the prison setting. Their duties span from that of nutrition expert, to health inspectors, to liaisons (Hardy, 2016). Additionally, registered dieticians are an integral part of the medical team, providing clinical consultations for prisoners with special dietary needs (Hardy, 2016). The dietician at this facility orders specific diets for the women with religious restrictions and attempts to modify diet orders for those with chronic conditions such as diabetes and congestive heart failures. The dietician also makes recommendations for changes to what should be stocked in the commissary.

An issue was exposed in a study by Herbet et al. (2012) who revealed that women in prison are being fed the same meals as men thus providing the women with an excess number of

calories. In Virginia, inmates have argued that the state's Department of Corrections does not follow United States Department of Agriculture (USDA) dietary guidelines, serving twice the recommended daily amount of grains, juice to replace the daily fruit requirement, and processed meats (Hausman, 2018). Even though there are set standards for meal requirements at the state level, studies have shown that prisons often deviate from meal plans. In Michigan, corrections officers have observed shortages in menu items resulting in meals deficient in nutrients, with the largest shortages in protein and complex carbohydrates (Zullo, 2017).

Problem Statement

Incarcerated women are gaining weight due to unhealthy diets and lack of exercise, which leads to further illnesses. Healthcare providers in the women's prison are not advocating for or providing counsel or education for this vulnerable population. Prison screening programs and treatment initiatives are inadequate and inconsistent (Restum, 2005). Obesity related illnesses such as stroke, type 2 diabetes, cancer, hypertension, heart disease, and lung disease costs just under $200 billion. (Cawley & Meyerhoefer, 2012). Obesity has other negative effects such as those who are obese may avoid clinical care if patients perceive that their body weight will be a source of embarrassment in that setting (Amy, Aalbord, Lyons, & Keranen, 2006). For example, there is evidence that obese women are less likely to seek recommended screening for some cancers, which results in more advanced, and thus more difficult to treat conditions because they are not caught early (Amy, Aalbord, Lyons, & Keranen, 2006).

In this particular prison the healthcare providers are very engaged with the women, but their role is focused on more immediate and chronic health problems rather than prevention. The role of the healthcare providers is to provide basic advice not prescribing a program to improve their condition Many healthcare providers find it challenging during a ten-minute visit to explain

the advantages of maintaining a healthy diet, especially when other problems must be addressed or if the patient is not receptive to a lifestyle change (American College of Obstetricians and Gynecologists [ACOG], 2014). Developing a comprehensive wellness program focusing on nutrition and physical activity within the women's prison system, will serve as a foundation for wellness that can be built upon.

Purpose Statement

The purpose of this project is 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

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

1. 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
2. Educate interdisciplinary staff in the wellness program and how to implement based on examination findings
3. Assess the nurses' knowledge of nutrition and physical activity guidelines

4. 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 Coverage

The literature review was conducted using EBSCO Host, the Clinton Prison Intranet, National Guidelines, Google Scholar, and CINAL. The filters that were applied include peer-reviewed literature, both five and ten years, and full-text availability. The search strategy included all aspects of prison nutrition, physical activity, and weight, and this was accomplished by using broad search terms and the results being checked to eliminate the possibility of relevant items being missed. A free-text strategy was utilized in databases without a well-constructed thesaurus, the free-text terms being: prison, prisons, prisoner, incarceration, incarcerated, women, exercise, fitness, activity, programs, chronic conditions, cost, obesity, overweight, and any combination of the above. These terms were joined with “or” and “and”. Exclusion criteria included studies from other countries, prior to the year 2000 with a focus on articles from 2015 and later. An EBSCO host search for “obesity and prison” with filters for full-text, peer-reviewed, and 2015-2019 applied yielded 2,790 results. The same search criteria with the addition of “diet and exercise” yielded 531 results, but none of the studies. Next, the search was conducted using synonyms. The search criteria “prison or jail or incarceration or imprisonment or correction facilities and obesity or overweight or fat or obese or unhealthy weight or high bmi” produced 22,583 results. With such a large number of results, the titles and abstracts were reviewed for information that was repetitively found, studies conducted in the United States, which did not include any participants under the age of 18, and applicable to the project. Govinfo.gov was searched for “prison and nutrition” with a filter for a publication date of 2014 to present and resulted in 686 articles. The Cochrane Library was searched using the filter for

abstract and the search terms included “prison” and “nutrition” provided five results, of which one was relevant to the project. The search engine, Ovid was used with the filters for full text and a publication date of 2014 to present applied. The search terms “prison and obesity” produced 38 results.

Review of Study Methods

A retrospective longitudinal study by Gates and Bradford (2015) discusses the impact of incarceration on obesity by examining if prisoners with chronic diseases become overweight and obese during their confinement. Firth et al. (2015) conducted a quasi-experimental study by implementing environment changes such as decreasing the number of calories on the female prison menu resulting in an improvement in the glycemic control of the female inmates with diabetes and a sustainable calorie reduction. A systematic review and meta-analysis by Gebremariam, Nianogo, and Arah (2018) examined weight gain during incarceration and concluded that health promotion activities within the prison helps to decrease weight gain. The article by Choudhry, Armstrong, Dregan (2018) is a systematic review that proposes ideas for future research in the area of obesity and prisoners to explore the various factors influencing prisoners' weight change within prison, including food, diet, activity levels, and other relevant factors in relation to weight change. A multicenter, three-arm, randomized trial by Eimer et al. (2006) concluded that behavioral interventions such as self-monitoring, individualized feedback, reinforcement, problem solving, and professional support resulted in decreased weight more so than just providing advice. Social support for initial behavior changes and maintenance of change was provided during the group sessions resulting in statistically significant reduction in weight, fat intake, and sodium intake.

Review Synthesis

Impact of the Problem

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). Due to circumstances that occur before, during, and after incarceration, prisoners are often at an increased risk for poor health outcomes such as stroke, type 2 diabetes, cancer, hypertension, heart disease, and lung disease while imprisoned (Cawley & Meyerhoefer, 2012; Binswanger, Krueger, & Steiner 2009). The health of people who are in prison is generally worse than the general population (Fazel & Baillargeon, 2011). This health disparity has several possible causes such as the use of intravenous drug use, alcohol, and smoking prior to incarceration coupled with inactivity while incarcerated; this could increase the risk of morbidity and mortality (Mannocci, 2015). 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). Obesity alone does not cause hypertension, arthritis, or any other chronic medical condition, but the lifestyle that causes obesity (poor nutrition coupled with decreased physical activity) does predispose someone to obesity related chronic illnesses (Agozino & Volpe, 2009). Seven of the ten most common chronic diseases are favorably influenced by regular physical activity (American Heart Association [AHA], 2018). A gain of approximately 10 to 20 pounds results in an increased risk of coronary heart disease (Willett et al., 1995; Glannis et al., 1998).

The cost of obesity in America is cited as perhaps among the largest contributing factors to high costs of health care (Hojjat & Ahmed, 2018). The lack of physical activity is linked to approximately $117 billion in annual healthcare costs and about 10% of premature mortality. A sedentary lifestyle can be an even stronger predictor of mortality than smoking, hypertension, and diabetes (Ross et al., 2016). In a US prison that is deemed high security, the women prisoners who were participating in a focus group described limited physical activity as a specific prison-based factor that affected their physical health (Harner, 2013).

Addressing the Problem with Current Evidence

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). Chronic conditions are diagnosed and treated usually after release from prison. Current evidence suggests that correction centers should be more involved in local and national quality improvement efforts (Binswanger, Kreuger, & Steiner, 2009). A recommendation for 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 Management

Within the New Jersey Department of Corrections, dental, clinical laboratory, diagnostic x-ray, and pharmacy services are available to care for the medical needs of all inmates. These services are currently provided by Rutgers Correctional Health Care (New Jersey Department of Corrections Family Resource Guide [NJDOC], 2016). Currently, the prison system does not have

a formal exercise and nutrition plan in place. The Centers for Disease Control and Prevention [CDC] (2012) reports that sodium is excessive in U.S. prisons; in 1989 (the most recent year of available data) federal prisons were serving a diet with 10,000 mg of sodium per day, and by 1995 their goal was to reduce it to 6,520 mg per day, which is still almost three times the recommended upper limit. Studies by Cook, Lee, White, and Gropper (2015) and Collins and Thomas (2015), found that 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. A study conducted by Amtmann, Berryman, & Fisher (2003), states that 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.

Free exercise time is encouraged, but most of the women use the time to talk or just sit around. Prison food menus did not meet recommended food and nutrient target levels with increased levels of sodium, cholesterol, and sugar than recommended (Collins & Thompson, 2012).

Current Recommendations

An article by Martínez-Vicente, Baile, & González-Calderón (2014) provides current recommendations for exercise and nutrition to encourage the implementation of prevention and/or intervention programs. The first recommendation is that obesity should be better surveyed so that it can be treated in prison, especially for female inmates (Lagarrigue, Ajana, Capuron, Féart, & Moisan, 2017). Currently, the women are weighed at intake and during their annual health checkups and their body mass index is calculated. Next, a program to increase physical activity, adapted to obese women should be designed and implemented (Lagarrigue,

Ajana, Capuron, Féart, & Moisan, 2017). The American Heart Association (2018), recommends for considerable health benefits, 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. A three-month quasi-experimental pilot study by Johnson, Milner, Heng, Greer, & DeNisco (2018), examined the level of physical activity coupled with an education program on physical activity and the effect on body mass index (BMI). The results showed that incorporating food tracking and commissary purchase tracking with weekly correctional nurse practitioner visits helped to prevent weight gain and reduce BMI.

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, Yaroch, Nebeling, Yeh, & Resnicow, 2008). The literature review of nutrition programs designed and implemented in prisons is also favorable. Nutrition recommendations come from the Office of Disease Prevention and Health Promotion, whereby 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. A study by Martin et al. (2013) discusses, how women in a prison designed and participated in their own six-week fitness program, which resulted in weight loss and a decrease in their body measurements. A pilot intervention to improve nutrition in prisoners by Curd, Ohlmann, and Bush (2013) found that participants in the nutrition workshops reported improved nutrition practices and improved general health status. Additionally, a nonrandomized prospective cohort study done in a prison system by Gil-Delgado, Domínguez-Zamorano, and Martínez-Sánchez-Suárez (2011) who implemented a special menu

and produced favorable results in weight, decreased cardiovascular disease risk, and reduced the amount of healthcare consults.

Benefits of Current Recommendations

The benefits of the current recommendations of implementing a comprehensive physical fitness and nutrition program in the prison system include decreased weight of the women who are incarcerated, decreased healthcare spending, and improved quality of life for those who are incarcerated. A study by Esposito (2015) supports that more attention should be given to the re-socialization aspect of prisons, constructing new ways to guarantee the prisoners a valid alternative to nonstandard behaviors so as to help restore family relationships and the reintegration in society. The implementation of training programs for prisons could be a simple, effective, and a cost-effective way to improve the health of prisoners. According with the Italian Constitution Document "punishments must aim at rehabilitating the condemned" for the restitution of healthy and renewed persons to the community (Mannocci, 2015).

Significance to the Profession

The design and implementation of a comprehensive nutrition and fitness program for incarcerated women will impact nursing by providing a framework for other correctional facilities to implement. The role of nurses in the prevention and treatment of obesity is extremely important. Nurses can promote healthy lifestyle choices that reduce the risks of being overweight or obese (Lazarou & Kouta, 2010). Nurses need to be on the forefront in the prevention of obesity not only for the health of their patients, but also because obese patients are more challenging to care for. For example, obese individuals find it harder to maintain their skin integrity, manage respiratory issues, and experience altered drug absorption (Camden, 2009).

Theoretical Framework

Kurt Lewin's Change theory (Appendix A) is often used in organizational development. The theory is based on the concept that sustained change will occur if the appropriate conditions are created through a process of trial and error (Bozak, 2003). Field theory, group dynamics, action research, and the three-step model of change were all developed by Lewin (Burnes, 2004). Lewin's theory assists organizations to move from the current state to the desired state by identifying factors that can impede change, which is referred to as restraining forces. Forces that encourage change is referred to as "driving forces" (Cummings & Worley, 2003; Bozak, 2003). Change theory incorporates three phases: unfreezing, moving, and refreezing. Once the behaviors that deter change and drive change have been identified, the organization can work to strengthen the driving forces (Bozak, 2003).

Historical Development

The history of Lewin's Change Theory begins with his preoccupation with the resolution on conflicts for minority groups, which may be contributed to him being a German Jew during a time when anti-Semitism was predominant (Burnes, 2004). He thought the way to resolve social conflict was through teaching people to understand and restructure the world around them (Burnes, 2004). Lewin's Change Theory was born from the idea that he felt that permanent change should be a part of the objective when a group tries to change their performance (Lewin, 1947).

Applicability of Theory to Current Practice

Lewin's Change Theory is used to create sustainable new approaches, values, and structures for addressing nutrition and physical activity through increased support from leaders to

foster the improvement of skills and knowledge of staff (New South Wales Health Department, 2001; Smith et al., 2006; Crisp et al., 2000; Potter &Brough, 2004). The use of Lewin's Change Management theory can support nurses through the transitions and identify areas of strengths and resistances prior to implementing change. Healthcare systems use Lewin's theory because of its emphasis on leadership, employee involvement, and sharing knowledge (Hussain et al., 2018). This model has been used for physicians' changing clinical practice, health providers' nutrition education initiative, bedside nurse acceptance of telemedicine, physical activity behavior change, and many other institutional changes (Gupta, 2017; Shelley, 2017; Canfield & Galvin, 2018; and Rhodes, McEwan & Rebar, 2018). Lewin's change theory has been used in current practice when nursing leadership wants to implement a change based on an improvement in clinical practice (Byram, 2000). An example of nursing leadership using Lewin's theory to guide a practice change is the implementation of an insulin drip protocol (Mayer, 2002).

Major Tenets of the Theory

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. Lewin's theory states behavior as "a dynamic balance of forces working in opposing directions" identified as restraining and driving forces (Kritsonis 2004-2005, pg. 1).

Unfreezing

Unfreezing occurs when dissatisfaction is created and a realization that the potential benefit of a change is better than the anxiety that comes with the process of change (Schein, 2010). The problem is diagnosed in this stage and possible solutions are generated (Buonocore, 2004). Key components of unfreezing are communicating with all stakeholders including frontline nurses, managers, and administration. During the unfreezing stage barriers to the proposed change become obvious and an awareness of the barriers is the first step in overcoming the obstacles (Buonocore, 2004). Engaging the driving forces to overcome the restraining forces is instrumental in a successful unfreezing stage.

Driving forces. Driving forces are all of the ideas, people, and research that support the change. Driving forces facilitate change because they push the person in the desired direction. They cause a shift in the equilibrium towards change. Engaging the leadership team, especially the nurse manager and the medical director, to promote the need for education on nutrition and activity will help to disparage the restraining forces.

Restraining forces. The restraining forces provide resistance to the change process (Buonocore, 2004). These are all of the people, policies, and barriers to change. An organization may have invested a lot of time, money, and resources into their current state making change very challenging. Restraining forces cause a shift in the equilibrium which opposes change (Kritsonis 2004-2005). The staff resisting the change because they don't want to learn the new program, spend time educating the inmates, or fail to see the value in the education will be restraining forces. In order to have a successful project implementation the driving forces must be stronger than the restraining forces.

Moving

Moving consists of the implementation of the change. During this stage there may be a redesign of roles, responsibilities, and relationships. It may be necessary to re-educate and train people. It is very important to maintain communication with the staff and leaders. During the moving stage there are often people who support the change and others who resist the change; therefore, promoting the supporters and removing the resisters is most effective way to move into the refreezing stage (Batras, Duff, & Smith, 2016).

Refreezing

Refreezing occurs when the practices and policies, organization norms, and culture of the organization supports the change (Lewin, 1997). The changes that were made to the procedures, structure, goals, or processes become the new status quo.

Application of Theory to DNP Project

The obesity rates in the prison contribute to chronic illness. Applying this theory to current practice will assist the staff with the realization that the status quo is no longer beneficial to the population they are caring for (unfreezing) (Buonocore, 2004). The nursing staff will be taught the new program (moving), and a healthier and more active culture will become the new norm (refreezing). The newly designed nutrition and fitness program will be best integrated into practice with Lewin's change theory.

Unfreezing

The unfreezing step will be to identify the problem of obesity with the nursing staff, which will occur through education in the nutrition and physical fitness program. The educational session will include providing the staff with information of the rates of obesity in the prison, chronic diseases related to obesity, the condition of inmates seen in the infirmary daily, and their role in the obesity crisis within the prison system. The staff will be educated on the

side effects of obesity both for the health of the women and the burden it places on society. Making the staff aware of the role they play in contributing to obesity within the prison system through the lack of providing education for the inmates on obesity and physical activity, and failure to implement physical activity programs will help to promote the need for change. Providing the staff with education about the effects obesity has on the inmates after release from prison will also drive the staff to recognize that the status quo cannot remain. During this phase it is imperative to increase the driving forces to offset the restraining forces. The goal of the unfreezing phase will be to make the staff feel as though they need to change their policies, protocols, and strategies for caring for the inmates.

Driving forces. In the proposed project, the driving forces will be the leadership team and the scholarly evidence. These forces will encourage and support the change through meetings, education, and providing the required resources. The project lead will present the information, the evidence, and then provide support for the implementation. The leadership team and staff, who are early adapters, will need to continuously reinforce the need for change and provide positive reinforcement throughout this process.

Restraining forces. The potential restraining forces are the dietary budget, staff who are uneager to learn a new program, previous failed attempts at physical activity programs, and undermotivated staff. The budget may not easily allow for changes to the menu and there might need to be cuts or changes in other areas to support the implementation of a healthier menu. The finance department may not fully support the change because it will mean reworking how the nutrition budget is allocated. The staff will now be required to educate the inmates on nutrition and physical activity, which will require them to learn, implement, and evaluate the patients and the program. They will refer the inmates that meet the criteria to the wellness program where

they will learn how to make healthier choices, learn exercise techniques, and participate in a support group to promote successful achievement of goals. The institution previously tried to implement free exercise time into the inmates' schedule, but it was not enforced and quickly disappeared. Any time a new procedure is put into place that requires new work to be done there are staff members who resist the change.

Moving

The moving phase will entail the development and implementation of the comprehensive nutrition and wellness program. This includes collaboration with the healthcare team to develop a policy on nutrition, physical fitness, educating staff about the new nutrition guidelines, fitness activities, and health promotion program. Communicating often with staff, assigning roles and involving staff in the process, and dispelling rumors in this step is important.

Refreezing

Refreezing will occur once the new program is in place and practice policies are developed. All of the staff will support the culture of physical activity, which will become a part of the daily routine. Following up with staff about the metrics of obesity, dietary changes, and health parameters will help to enforce the change to become the norm. During the refreezing period celebrating the success of the staff following the new procedures will help to enforce the change. The staff will need the leadership team to provide continuing support through education and reinforcement

Project Design

This Doctor of Nursing Practice (DNP) project is considered a quality improvement project. Lewin's Change Theory will be utilized to guide implementation of a nursing practice

change within the New Jersey women's prison. The nursing practice change is 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. Collaboration will occur with dietician who will assess the menus and add fresh fruits and vegetables to the meals and the activity director who will oversee the exercises in the fitness center. One of the goals for this project is to bring awareness to the healthcare providers of the benefits for the inmates to participate in health and wellness programs while incarcerated to reduce the development/progression of chronic diseases, improve self-esteem, and independence. Compliance to the nursing practice change will be tracked via a manual log of the sessions the nurses teach. 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. The nurses' knowledge and skills will be tested pre and post educational session, while competency is monitored via observation of a teach back demonstration and use of a checklist. The project lead will educate, administer the tests, and observe how the nurses evaluate, educate, and refer the inmates to the program. The independent variable is the comprehensive nutrition and physical exercise program. The dependent variables are the nursing staff's knowledge and skills regarding obesity and the nursing staffs' competency implementing the program.

Population of Interest

The population of interest is the prison nursing staff that is composed of approximately 10 registered nurses and 20 licensed practical nurses who work dayshift. They will be implementing this nutrition and exercise program for the inmates with collaboration with other healthcare providers such as the dietician. 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. Currently, they do not have a continual place they work. 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 is mandated thus, all nurses employed on the dayshift at the practice site will be included. Excluded from this project is nursing administration, the medical director, activity director, night shift nurses, temporary nursing staff and any nurses or dieticians who are on excused leave.

Setting

The project site is a 909-bed institution with the ability to house 1,000 females in Clinton, New Jersey. Permission was granted to implement this project via the affiliation agreement (Appendix B). The project site has three areas; a minimum security, a medium/maximum security, and a third compound that houses offenders with special mental health issues. The project site houses a vulnerable population of incarcerated women ages 16 or older with various sentence lengths from months to life. Women have committed crimes ranging from theft to murder. 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 will receive their education seats approximately fifteen to twenty people around a table. The room has a white erase board available. The didactic piece of the education for the nurses will be held in the conference room and the hands-on part will take place in the fitness area. There is a fitness room with treadmills,

weights, and various other exercise equipment. There is also a "yard" for walking, running, and other aerobic activity.

Stakeholders

The key stakeholders in this project are the leadership team, which consists of the medical director, nursing director, and nursing supervisor, the staff nurses, the dietary manager, the activity director, and the project lead. All of the stakeholders have been involved in the planning of the project and are supportive of the initiative. The administrative level including the medical director and nursing director will review this project to determine the feasibility of transferring it to other women's prisons.

The staff nurses are also stakeholders as they will be responsible for learning the content and instructing the inmates. They will be the initial step toward this program through evaluation of high-risk inmates. The staff nurses will begin educating the inmates and refer them to participate in the wellness program.

The dietary manager's involvement is to be an expert with menu selection and to oversee the menu provided in the cafeteria to ensure that it incorporates healthy choices. The dietary manager will also assist with obtaining funding for the new menu and promote a change in the commissary choices. He or she will collaborate with the project lead by designing a healthier menu. He or she will continue to have oversight of the menu offered to inmates in the cafeteria.

The role of the activity director will be to ensure the activity space is available for all the educational sessions and to notify the nurses and unit supervisors when the area will be opened. The activity director will collaborate with nursing to have the exercise room opened three days per week at pre-scheduled times in the morning and again in the afternoon. This will allow time

for the nurse to provide the initial education and time for the inmates to participate in physical activity. The activity director will oversee access to this exercise room, maintain a sign in sheet, ensure safety with the use of the exercise equipment.

Recruitment Methods

This project has been approved by the director of nursing for the New Jersey State Prison System. Since this is a system wide practice change, all day shift nursing staff are mandated to participate. The nurses will be signed up to attend the education sessions by the project lead in collaboration with the nursing supervisor. The nurses will be given their unique identifier prior to the education sessions by the project lead via email communication. 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 come to the education session they will sign 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.

Tools/Instrumentation

Wellness Program

This DNP project consists of developing a wellness program for the inmates to gain knowledge and skills in ways to improve, maintain, and promote health. The wellness program is a foundation for building a pathway for health promotion to occur within the women's prison setting. An environmental analysis was performed and suggests the environment of prison does

not avail itself to providing a healthy lifestyle nor does it provide any programs to address health outcomes (Binswanger, Kreuger, & Steiner, 2009). This DNP project will change this practice to promote healthy lifestyles for the incarcerated women.

Educational Presentation

The tools that will be utilized to implement this project consist of a PowerPoint education session for the nurses (See Appendix C). This presentation will include 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 will be offered to the nurses five times.

The federal dietary guidelines are used to create the federal nutrition policies on nutrition education activities, provide food-based recommendations, help prevent diet-related disease, and meet nutrient needs (US Department of Health and Human Services, 2017). Federal agencies use the Dietary Guidelines as a central source of guidance for nutrition programs within the government. These guidelines can be used to inform food and nutrition programs and initiatives while tailoring for specific audiences, such as women and children (US Department of Health and Human Services, 2017).

The Physical Activity Guidelines for Americans serve to inform policy makers and health professionals at the national, state, and local level. Policy makers use the guidelines to disseminate the information in an effort to increase physical activity. Health professionals are permitted to use these guidelines to guide health care and public health practices (Office of Disease Prevention and Health Promotion [ODPHP], 2015). At the federal level, the

recommendations from the guidelines are the basis for the Healthy People objectives; the Presidential Youth Fitness Program; research questions and grant programs developed by National Institute of Health; and surveillance questions that the Center for Disease Control and Prevention use to assess physical activity levels of various populations (ODPHP, 2015).

This presentation will provide the required information for nurses to impart to the inmates. The nurses must understand the content of this component of the program since they will be implementing this DNP project. They will be considered the first to implement a wellness program in the women's prison system. It is important for the nurses to change current practice, which includes treatment of both acute and chronic disease management to add health promotion and prevention. This practice change consists of a new mindset and requires training. The healthcare industry has shifted its focus to now include health promotion and preventative services; therefore, the correctional industry's health services must also shift its practice (Whitehead, 2005).

Pre and Post Test

In order to measure the outcome of this DNP project, the participants will be asked to complete a pre and post- intervention test (Appendix D) that focuses on knowledge, competency, and application of the information from the educational session. A ten-question test will be administered prior to the educational session and again immediately after the education session. The content includes questions about nutrition and physical activity that they will be using to educate the inmates. Any nurse who scores less than 70% will have to take the education session and test again to demonstrate competency in the information they are being taught.

The results of this test will enlighten the project lead of the nurses' attitudes toward health promotion. The test format is multiple choice questions, which are a common assessment method in nursing examination (Tarrant, Kneirim, Hayes, & Ware, 2006). The content validity ratio (Appendix E) of the questions on the test yielded a mean total of all of the means of 3.934 indicating that all of the questions were highly relevant.

Referral Protocol

Any inmate who the nurses assess with a body mass index of 25 or greater will be referred to the wellness program, which includes participating in the educational session, exercise, and a weekly support group. A referral protocol (Appendix F) for the nurses will be developed. It will be a tool for the nurses to use to begin the treatment or prevention of obesity. The referral process outlines who should be referred and how to proceed. The wellness program is not limited to women with a BMI of 25 or greater, but is strongly recommended for these women because weight loss education, exercise, and support groups has been linked to increased weight loss (Song, Reinhardt, Buzdon, & Liao, 2008).

Competency Checklist

The project lead will observe each nurse perform the patient education in a "teach-back" session prior to signing them off as competent in the material. During the teach-back session the project lead will utilize a competency checklist (Appendix G). The checklist will include ten points including whether or not the nurses assessed the women's nutrition and physical activity habits and educated them on the nutrition and physical activity practices. The checklist was developed based on the PowerPoint presentation education the nurses will receive. The

reliability of the checklist will be consistent because there is only one project lead that will be observing the teach-back and using the checklist so there will be no issues with inter-rater reliability. The predictive validity of the checklist will be seen as the program continues. The nurses must meet at least 80% of the material on the checklist correctly during this session to be deemed competent. If the nurses do not achieve 80% competency, they will be enrolled in a remedial education session and have to perform the teach-back again.

Compliance Checklist

The compliance checklist (Appendix H) will be used to monitor if the nurses are compliant with the wellness program implementation as it was designed during the teaching portion of the program. The nurses are expected to implement the wellness program first by evaluating the inmates and ordering referrals. The compliance checklist consists of a list of steps the nurses should be performing during their initial session with the inmates including education on physical activity and nutrition and a demonstration of exercises to be performed in the cell and in the fitness center. The categories will be marked with a yes or no answer indicating whether the topic was addresses and qualitative notation may also be made. The data collected will be used to provide feedback to the nurses regarding where they did well with the program and where they could improve.

Data Collection

Data collection will be required for the implementation and evaluation of the nurses' abilities to implement the wellness program, which is focused on nutritious eating habits and physical activity.

Pre and Post Education Test

A pre and post intervention test to evaluate the nurse's knowledge of the content they are teaching will be administered prior to and at the conclusion of the class. To measure the outcomes of this DNP project, the post-intervention test will be compared using descriptive statistics and Excel software. The responses of the test will be compared question by question to measure a change in the nurses' capability to facilitate the educational conversations.

Competency Checklist

Data will be collected using the competency checklist that will be employed when each nurse performs a teach-back lesson at the completion of the education session provided to the nurses. The nurses will each perform a teach-back lesson to the project lead to evaluate competency in teaching the information. If a nurse fails the teach-back lesson he or she will need to remediate the class and perform another teach-back lesson. The tech-back lessons will be performed in private with the project lead and the nurse and only the nurse will be privy to this or her results. Each tenet of the checklist will be analyzed for trends and common themes. To maintain confidentiality and privacy, the nursing staff will be identified by the assigned number the nurse received for the other tools. The competency checklist will be stored in a locked cabinet in the nursing supervisor's office where only the project lead has access.

Compliance Audit

The compliance checklist will be completed as the nurse or activity director implements the program in the exercise room. The compliance checklist will be tabulated for the rate of compliance in the use of the protocol

There will be no identifying information on any of the data that is collected to maintain participant confidentiality and protection. Each nurse will be assigned a unique identifier (a number) that will only be known the project lead and the nurse. The nurse will put their unique number on the top of both the pre and posttests and the same unique number will be on the competency checklist and compliance audit. The list of the assigned numbers, audits, and tests will be stored in the locked nursing supervisor's office in a locked cabinet that only the project lead will have access to.

Timeline

The project began in March of 2019 with identifying the problem, performing an assessment of the facility and infrastructure, and creating a comprehensive wellness program focusing on nutrition and physical activity in a women's prison in an effort to reduce the prevalence of obesity. During this first phase, identification of a problem required performing a literature review to determine project topic feasibility and scholarly support. Finally, a theoretical framework was identified to guide this project through implementation. The next phase began in July 2019, which is considered the planning phase. Detailed project development and planning is completed. Next, the project tools were created and the program design was completed. Implementation will take place over a four-week period to begin in November 2019. During week four data collection, analysis, and evaluation will follow.

Approval for implementation and project determination will be sought by the end of October 2019. Once project implementation is approved, the next phase is the implementation, which will begin in November, 2019. The table below will indicate a detailed timeframe for project implementation.

Project Timeline	
Weeks	**Activity**
Week 1	• Administer pre-education test • Educate the nursing staff, dietician, and activity director in the roles they will be accepting responsibility during 5 separately scheduled education sessions • Nurses will perform teach back at the end of each session the program lead provides • Administer post education test after education session • Demonstrate exercises to the activity director in the fitness center • Collaboration and training of the expectations of the dietician
Week 2	• The implementation of the nutrition and exercise program will formally begin. • Project lead will round to provide support for the nurses • Project lead will begin to monitor compliance
Week 3	• Continue to provide support and monitor nurses • Complete at least ten compliance checks • Follow up with dietician and activity director regarding questions and concerns
Week 4	• Continue to provide support and monitor nurses • Complete at least ten compliance checks • Follow up with dietician and activity director regarding questions and concerns
Week 5	• Continue to provide support and monitor nurses • Complete at least ten compliance checks

	• Follow up with dietician and activity director regarding questions and concerns
Week 6	• Implementation ended. Data collection and compilation beginning • Analysis completed.

Ethics/Human Subjects Protection of Human Subjects

The project lead underwent the Collaborative Institutional Training Initiative (CITI) Program, which is a web-based training program on human research. This program taught the project lead about the protection of vulnerable populations including prisoners. In this quality improvement project, the focus is not on the women inmates, but on the nurses. The nurses are expected to benefit directly as the goal is to improve healthcare delivery (Casarett, Karlawish, Sugarman, 2000). Although participation is mandatory it is not a condition of employment. There is no compensation for participating in this project. Protection of the data collected includes storing them in a locked area of the supervisor's office with only the project lead and nursing supervisor having access to the information. There will be no identifying information on any data collected or data analysis. The project is was found to be exempt from IRB review at the project site (Appendix I). This project should also be exempt from the Touro University IRB review as it is considered a QI project providing no direct patient care. A signed informed consent, typical in research, is not required for QI (Newhouse, Pettit, Poe, & Rocco, 2006). There was no monetary compensation or risk for the participants associated with this project.

Plan for Evaluation

Quality improvement projects are performed in an effort to improve a process or practice (Newhouse, Pettit, Poe, & Rocco, 2006). The plan for evaluation of the project outcomes will

include if the nurses are compliant with implementing the nutrition and physical activity program by initiating education and referrals to the program. Additionally, the knowledge of the nurses in the wellness program will be evaluated. A statistician was consulted who recommends the independent variable being the before/after training; the dependent variable being total score on tests; these are paired data; therefore, using a paired t-test will be appropriate. The t-test will be used to compare the means of both the before and after test. The compliance of the nurses providing the program will be measured through a checklist. The compliance will be measured once per shift for two weeks. Using a 95% confidence interval around the proportion of nurses who are compliant with the program will be reported.

Significance and Implications

This project puts the DNP prepared nurse at the forefront of designing quality improvement projects at the state correctional facility level. Quality improvement projects are not intended to generalize knowledge but to improve care in a limited application for a specific population (Newhouse, Pettit, Panoe, & Rocco, 2006). This program will be transferrable and could be used by any correctional facility. This program will be considered the foundation for wellness programs offered in women's prisons nationally. It can be built upon to include other foci such as smoking cessation, infection control, and dental health.

The potential implications for future nursing include health promotion activities within the prison to decrease obesity and reduce the progression or onset of related chronic illnesses (Gebremariam, Nianogo, and Arah, 2018). Ideas for future research in the area of obesity and prisoners are to explore the various factors influencing prisoners' weight change within prison, including food, diet, activity levels, and other relevant factors in relation to weight change (Choudhry, Armstrong, Dregan (2018). Another area for future research is to promote

preventative nursing interventions to change the focus of treatment only by the nursing staff to include prevention.

Analysis of Results

The components of this wellness program were to design a comprehensive wellness program with a focus on nutrition and exercise, educate interdisciplinary staff in the wellness program, assess the nurses' knowledge of nutrition and physical activity guidelines and evaluate staff compliance with the program.

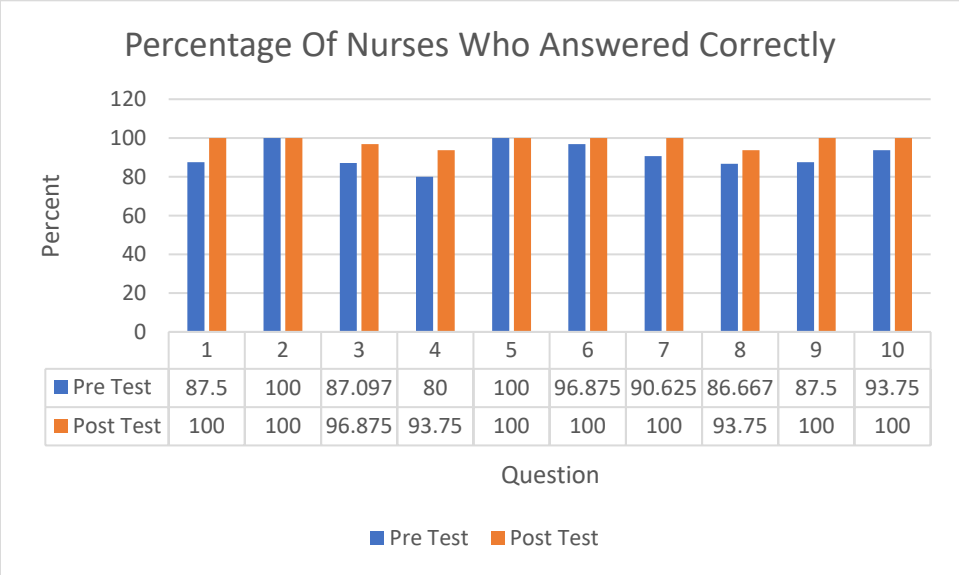
The design of comprehensive wellness program was completed in collaboration with the leadership team, dietician, activity director, and staff nurses. Education about the program and implementation was provided to the staff via a PowerPoint presentation. A pre and posttest was administered before and after the education. Nutrition recommendations come from the Office of Disease Prevention and Health Promotion, whereby the 2015–2020 Dietary Guidelines for Americans recommends that the diet choices focus on variety, nutrient density, and quantity. The Physical Activity Guidelines for Americans and the 2015-2020 Dietary Guidelines for Americans are used by health professionals guide health care and public health practices (Office of Disease Prevention and Health Promotion [ODPHP], 2015).

Efficacy of Educational Program for Nurses

A paired t-test was conducted to determine whether the wellness program was effective in increasing nurses' knowledge about nutrition and physical activity guidelines. Results indicated that nurses knowledge significantly improved from pretest (M = 9.09, SD =1.40) to posttest (M = 9.81, SD = 0.47), $t(31) = -3.56$, p =.001. In other words, the nurses gained knowledge about fitness and nutrition following the educational program, suggesting that this

intervention was effective. Table 2 shows the percent of nurses who answered each question correctly.

Table 1. *Percentage of Nurses Who Answered Correctly*



	1	2	3	4	5	6	7	8	9	10
Pre Test	87.5	100	87.097	80	100	96.875	90.625	86.667	87.5	93.75
Post Test	100	100	96.875	93.75	100	100	100	93.75	100	100

Observed Competencies

Nurses also demonstrated competency in 10 different areas regarding assessment of women's physical activity and nutrition (See Table 2). Findings suggest that no nurses exhibited competence in areas 1, 2, or 3 (i.e., assessing women's nutrition and physical activity knowledge; current nutrition and physical activity habits; and educating them on risk factors for poor nutrition and inactivity). The largest portion of nurses were competent in areas 4 (n = 13; 40.6%) and 5 (n = 15; 46.9%). Results are presented in Table 2.

Chi-square goodness of fit tests were conducted (table 3) to determine significant differences in the proportion of nurses who demonstrated competence in each area compared to what proportion would be expected to be competent (50%). Results indicated that the proportion of nurses who showed competence in area 6 (χ^2 (1) = 24.50, p < .001), area 7 (χ^2 (1) = 24.50, p <

.001), area 9 (χ^2 (1) = 4.50, $p < .001$), and area 10 (χ^2 (1) = 15.12, $p < .001$) was lower than what would be expected (50%). In other words, a smaller proportion of nurses were competent in areas 6, 7, 9, and 10 than expected. This finding is consistent for areas 1 – 3 given that no nurses demonstrated competency. Notably, there was no significant difference in proportion of nurses who exhibited competency in areas 4, 5, and 8 meaning that the proportion of nurses who demonstrated competency was not different than expected (50%). Findings suggest the proportion of nurses who demonstrated competency in assessing more medical indications including calorie intake (competency 4), sodium intake (competency 5) as well as activities they can do in their cell (competency 8) following the intervention was what would be expected.

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

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

Table 3. *Competency Statistics*

Competency Statistics

	Comp4	Comp5	Comp6	Comp7	Comp8	Comp9	Comp10
Chi-Square	1.125[a]	.125[a]	24.500[a]	24.500[a]	3.125[a]	4.500[a]	15.125[a]
df	1	1	1	1	1	1	1
Asymp. Sig.	.289	.724	.000	.000	.077	.034	.000

a. 0 cells (0.0%) have expected frequencies less than 5. The minimum expected cell frequency is 16.0.

Compliance by Nurses

Nurses were observed in intake and routine care visits (total of 34 visits) to determine how often they did adhere to the skills taught during the intervention. Four compliance items were assessed including: (1) education provided on physical activity; (2) education on nutrition; (3) demonstration of exercises for fitness room; (4) demonstration of exercises to be performed in cell. Results indicate that nurses provided education about physical activity (compliance item 1) as well as nutrition (compliance item 2) during 22 of the 24 visits (64.7%). Further, nurses demonstrated exercises for the fitness room 7 times (20.6%) and demonstrated exercises for the cell 5 times (14.7%). Overall, findings highlight that nurses provided education more often than they demonstrated activities. Findings are presented in Table 4.

Table 4. *Number of nurses who did adhere to intervention during visits (N = 34 observations)*

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%)

Discussion and Signifiance

The results of this comprehensive wellness program with a focus on nutrition and exercise for incarcerated women should be considered by the stakeholders so the program can be built upon to add enhanced wellness components and changes in the delivery of the program to the nurses. Enrichments to the program could have a focus on the assessment the nurses perform including the type of questions they ask about nutrition and physical activity. Role playing may be an integrative and dynamic method for the program developer to use to teach the program to the nurses.

As expected, the analysis 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 PowerPoint educational presentation that was provided to the nurses introduced and reinforced education on physical activity and proper nutrition. 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 which was surprising. Assessing the women's knowledge on physical activity and nutrition was not previously a part of the nurse's assessment routine and was a new component of their interactions with the women. It can be hypothesized that not assessing the women's knowledge on physical activity and nutrition during the teach-back demonstration was not truly a fault in competency, but a new process that was not followed. Compliance tracking suggested

that the nurses provided psycho-education more frequently than demonstrating the skills. This is an expected outcome as nurses are not traditionally well-versed in exercise training.

This program is important to continue and improve upon because incarcerated women are gaining weight due to unhealthy diets and lack of exercise, which leads to further illnesses. Continuation of this program will aim to decrease the weight of the women who are incarcerated, decrease healthcare spending, and improve the quality of life for those who are incarcerated. The program includes a recommendation for cardiovascular exercise to promote and maintain health, combined with optimal caloric expenditure, which will help to reduce the incidence of obesity (Battaglia et al., 2013). The promotion of physical fitness and nutrition through this program is consistent with the recommendation by Lagarrigue, Ajana, Capuron, Féart, & Moisan, (2017) that obesity should be better surveyed so that it can be treated in prison, especially for female inmates.

This project is significant to the nursing profession because it will be utilized in all female prisons in New Jersey. 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.

Limitation of Findings

Project Design

The limitation of this project design was the lack of research available on nutrition and physical education programs run by nurses for incarcerated women. This meant the project lead had to modify current national guidelines to fit the limitations of the prison system. Creating a wellness program for women who are incarcerated in a women's prison was met with some challenges. The national guidelines for nutrition and physical exercise was to be incorporated into this program but required a moderate amount of modifications. A study conducted by Amtmann, Berryman, & Fisher (2003), states that 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. The challenges with the design were due to the nature of the prison system and how they are run. For example, to provide a nutritional program meant that the project lead and the nutritionist had to offer a limited choice of foods available for the prison. There was a limited amount of fresh fruit and vegetables the prison can obtain. The physical activities of the inmates are strictly monitored and confined to only a few spaces where there is room to physically exercise. Therefore, cell exercises were incorporated into this program.

Recruitment Methods

The implementation of this project had several limitations in regards to recruiting participants and the timeline for project implementation. The nurse's workflow model has the nurses rotating through several units within the prison. Since the nurses do not work steadily on one unit, all nurses had to be trained to implement this protocol. There were time constraints to

provide the education to the participants due to the four-week timeline to implement this project and the participant's schedules. The participants had to be educated prior to initiating the assessment protocol. There are several nurses employed in the women's prison, which resulted in the educational sessions taking longer to complete.

Data Collection Methods

A limitation of the data collection phase was that it was shorter than desired. From implementation of the project through the final collection of data was only six weeks. The five-week time period for compliance data collection revealed promise that the nurses would continue with the program, but there is no long-term data collection to assess how prevalent the education on the program remains. Consequently, a two month, six month, and one year compliance audit would be beneficial to track the program's progress. Also, the compliance data was obtained by the project lead's direct observation; therefore, the data was not collected blindly and the participants knew they were being audited. The knowledge of being observed may have altered the participants' performance thus skewing the compliance scores. The competency data collection was essential to the nurses being able to teach the program. Shelton, Weiskopf, & Nicholson (2010) state that, "the pathway toward the future of the correctional nursing workforce begins with articulation of correctional nursing competencies". It would be beneficial to reassess the nurses annually for competency on the program to maintain the integrity and value of the information that is taught to the women.

Data Analysis

The limitation of the data analysis is that it does not decipher which nurses were noncompliant. The data also does not reveal how many times each nurse was observed for

compliance and there may be some nurses who were not observed at all. A recommendation for change would be to track nursing compliance using the de-identified numbers which nurses were assigned for the competency and pre and post-tests. Tracking the nurse's assigned numbers would reveal how many observations each nurse had. The assigned numbers were only used for the pre and post-test secondary to the program developer's error. Additionally, a longer data collection time-period would allow more nurses to be observed for compliance.

Dissemination

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 and poster presentation. The poster will be submitted to conferences for correctional nursing such as the National Commission on Correctional Healthcare to be held in Atlanta Georgia, May 2-5, 2020. 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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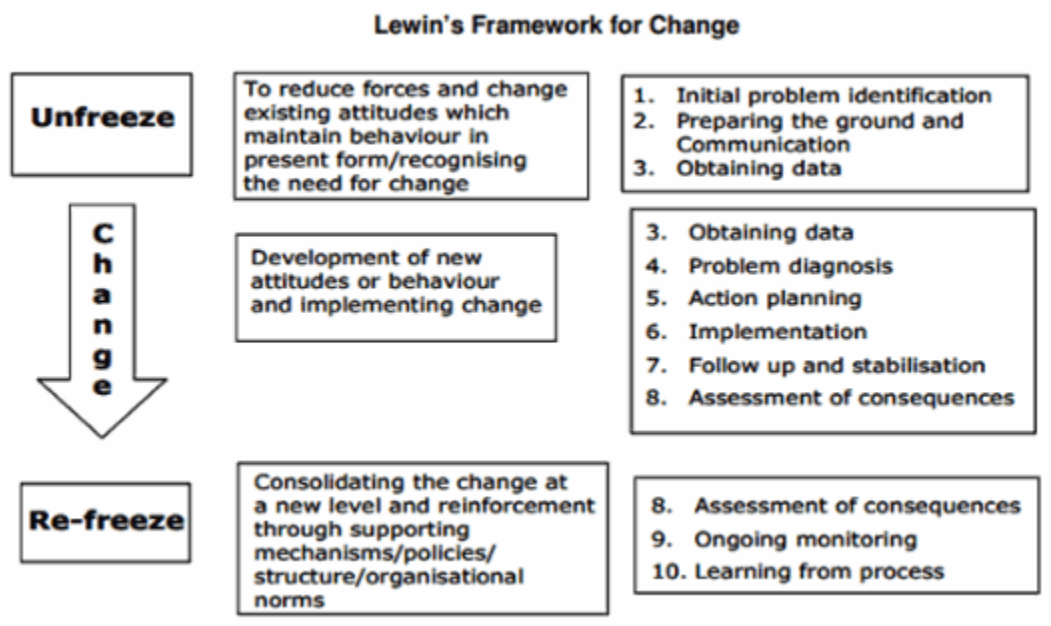
Appendix A

Lewin's Change Theory



Appendix B

CLINICAL
AFFILIATION AGREEMENT

This Clinical Affiliation Agreement by and between Rutgers, The State University, an instrumentality of the State of New Jersey, a public entity, on behalf of its Rutgers Biomedical and Health Sciences ("RBHS")-{University Behavioral Health Care/University Correctional Health Care-UCHC} ("Facility") and Touro University Nevada for the clinical education of students in the School of Nursing ("Sending School/University").

The Sending School/University offers instruction in nursing and advanced nursing practice. As part of each Program, Sending School/University seeks relevant, supervised experiences in clinical practice settings. The purpose of this Clinical Affiliation Agreement is to identify the mutual responsibilities and expectations of the Sending School/University and the RBHS clinical Facility.

1. General Information.

A. The Facility will accept students in University Correctional Health Care (UCHC), for clinical instruction in ~~Social Work~~ Nursing. This Clinical Affiliation Agreement shall commence on the Effective Date (as defined below).

B. The period of time for each student's clinical education shall be agreed upon in writing by the Sending School/University and Facility at least one month before the beginning of the clinical education Program.

C. The number of students eligible to participate in the clinical education Program shall be mutually determined by agreement of the parties and may be altered by mutual agreement.

D. There shall be no discrimination against any student engaged in the work required to produce the services and programs covered by this Clinical Affiliation Agreement, or against any applicant for such student placement because of race, creed, color, national origin, nationality, ancestry, age, sex (including pregnancy and sexual harassment), marital status, domestic partnership or civil union status, affectional or sexual orientation, gender identity or expression, atypical hereditary cellular or blood trait, genetic information liability for military service, or mental or physical disability, including AIDS and HIV related illnesses or their belonging to any category now or later protected by law. This provision shall include, but not be limited to, the following: employment, upgrading, demotion, transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training including apprenticeship.

E. The parties to this Clinical Affiliation Agreement do hereby agree that the provision of *N.J.S.A.* 10:2-1 through 10:2-4, dealing with discrimination in employment on public agreements, and the rules and regulations promulgated pursuant thereto, as

Facility and its employees, staff, and agents against any and all claims for bodily injury or death and property damage resulting from the performance of services by the Facility, its employees, staff, and agents under this Clinical Affiliation Agreement or provide a program of self-insurance as described below. Such policy shall protect the Facility, its employees, staff, and agents against claims arising against the Facility, its employees, staff, and agents with limits of not less than $1,000,000 with respect to injury or death to any one person and not less than $3,000,000 in the aggregate. Should such policy or policies be made on a claims made basis, the Sending School/University shall assume liability for all future claims presented with regard to the performance of services by the Sending School/University, its employees, staff, and agents in accordance with this Clinical Affiliation Agreement. Should the Sending School/University provide this coverage through a program of self-insurance, the Facility reserves the right to review the nature of the self-insurance program, and to evaluate the adequacy of funding such program and to either approve or disapprove such program, as it pertains to this Clinical Affiliation Agreement.

2. The Sending School/University shall furnish the Facility with evidence that it has complied with the requirements for liability coverage. Two (2) certificates of such insurance shall be furnished to the Facility prior to the effective date of this Clinical Affiliation Agreement. Any failure to furnish such material or to keep such insurance coverage in full force and effect during the term of this Clinical Affiliation Agreement shall constitute cause for termination.

3. Nothing stated in this Clinical Affiliation Agreement shall be construed to imply indemnification of any party by the Facility.

3. Responsibility of the Facility.

A. The Facility shall provide clinical instruction and supervision of the students by personnel qualified in healthcare who meet the standards of recognized professional accrediting agencies or state agencies and the stated objectives of the Sending School/University. If so asked, the Facility shall designate in writing the name and professional academic credentials of staff members participating in the clinical education program.

B. Designated Facility personnel and the Sending School/University's Coordinator for the School of Nursing project and practicums shall jointly plan and evaluate the clinical experience.

C. The Facility shall provide immediate emergency health care to the faculty, if any, and students in any instance of injury or illness at the expense of the faculty or the student. The Facility shall also orient the student to the infection control and safety procedures at the Facility that are applicable to their clinical rotation.

D. The Facility will permit faculty, if any, and students to utilize the library facilities. The Facility will permit faculty, if any, and students to utilize the Facility's parking and cafeteria at their own expense. For UCHC facilities, parking is provided to staff and interns by the NJ Department of Corrections at no expense.

E. Liability Insurance:

Rutgers, The State University of New Jersey is an instrumentality of the State of New Jersey. As such, this Clinical Affiliation Agreement incorporates the following Statement of Public Liability Insurance: Any agreement or arrangement signed and entered into on behalf of the State of New Jersey by a State official or employee shall be subject to the provisions of the New Jersey Tort Claims Act, *N.J.S.A.* 59:1-1 *et seq.* and the availability of appropriations. The State of New Jersey does not carry public liability insurance, but the liability of the State and the obligations of the State to be responsible for tort claims against its employees are covered under the terms and conditions of the New Jersey Tort Claims Act. The Act also creates a special self-insurance fund and provides for payment of claims against the State of New Jersey or against its employees whom the State is obligated to indemnify against tort claims which arise out of the performance of their duties.

The Facility shall provide for professional and general liability coverage insuring its faculty, students and employees performing activities under this Agreement. Professional Liability coverage is provided through a Program of Self-Insurance providing limits of coverage of not less than $1,000,000/$3,000,000 on an occurrence type basis and general liability coverage with limits of $2,000,000/$5,000,000 on an occurrence basis is provided through an insured program. The Facility assumes any all obligations for its employees that are required pursuant to the Workers Compensation and Disability Laws of the State of New Jersey through self-funding.

4. Responsibilities of the Students.

A. Students of the Sending School/University shall, at all times, follow the rules and regulations established by the Facility, and shall do so under the specific instruction of supervisory personnel of the Facility.

B. Each student shall provide evidence that his/her own health care is covered in the event of sickness or accident by appropriate insurance policy. The Sending School/University shall advise and direct its students that students are required to comply with the RBHS policies on "Student Accident and Health Insurance." See the Policy at:
http://academicaffairs.rutgers.edu/additional-resources/rbhs-policies

C. The Sending School/University shall advise and direct its students that students are required to comply with the RBHS policies on "Student Immunizations and Health Requirements." See the Policy at:

http://academicaffairs.rutgers.edu/additional-resources/rbhs-policies

5. Criminal Background Checks for Students.

A. The Facility requires evidence of criminal background check for students engaged in training at the Facility, the Facility agrees that it will permit students to participate in training pursuant to this Clinical Affiliation Agreement based on the approval of the criminal background check to be completed by the New Jersey Department of Corrections prior to the clinical placement at the Facility. The criminal background check is conducted on each student at no expense.

B. The Sending School/University shall advise and direct its students that students are required to comply with the RBHS policies on "Criminal Background Checks for Accepted Applicants for Admission to RBHS Schools and Educational Programs and for Currently Enrolled Students." See the Policy at: http://academicaffairs.rutgers.edu/additional-resources/rbhs-policies.

6. Term of Clinical Affiliation Agreement.

A. The term of this Clinical Affiliation Agreement shall run from **4/1/19** (the "Effective Date") until **4/1/22.** This Clinical Affiliation Agreement shall thereafter be **automatically renewed for periods of one (1) year** unless either party hereto shall notify the other party in writing not less than ninety (90) days prior to the termination of this Clinical Affiliation Agreement that either party wishes not to renew this Clinical Affiliation Agreement. Such written notice shall be sent by facsimile or overnight mail through a courier with a reliable system for tracking delivery to the addresses set forth below:

To the Facility:

Steven Andreassen, Esq.
Chief of Staff
Office of the RBHS Chancellor
Rutgers University
65 Bergen Street
Newark, New Jersey 07103

With a copy to:

Julie White, MSW CCHP
Chief Operating Officer
Rutgers University
University Behavioral Health Care/UCHC
P.O. Box 863
Trenton, NJ 08625-0863

To the Sending School/University:

Touro University Nevada
874 American Pacific Drive
Henderson, NV 89014
Attention: Raymond Alden III, Ph.D.

B. It is understood and agreed that the parties to this Clinical Affiliation Agreement may revise or modify this Clinical Affiliation Agreement by written amendment when both parties agree to such amendment.

C. Upon early termination of this Clinical Affiliation Agreement, a student currently receiving clinical training shall be provided with a reasonable amount of time to complete his or her clinical education.

7. Insertion of Law.

It is the intent and understanding of the parties to this Clinical Affiliation Agreement that each and every provision required by law to be inserted in this Clinical Affiliation Agreement shall be and is deemed inserted herein. Furthermore, it is hereby stipulated that every such provision is deemed to be inserted herein, and if through a mistake or otherwise, any such provision is not inserted or is not inserted in correct form, then this Clinical Affiliation Agreement shall forthwith upon the application by either party be amended by such insertion so as to comply strictly with the law, without prejudice to the rights of either party.

8. Choice of Law and Venue.

This Clinical Affiliation Agreement shall be deemed to have been executed in the State of New Jersey, and shall be governed by and construed, and the rights and obligations of the parties hereto shall be determined, in accordance with the laws of the State of New Jersey, without resort to the conflicts of laws principles of the State of New Jersey. The parties agree that any and all claims arising under this Clinical Affiliation Agreement, or related thereto, shall be heard and determined either in the courts of the United States with venue in New Jersey or in the courts of the State of New Jersey.

9. Warranties.

A. The undersigned warrants and represents that this Clinical Affiliation Agreement has not been solicited or secured, directly or indirectly, in a manner contrary to the laws of the State of New Jersey and that said laws have not been violated and shall not be violated as they relate to the procurement or performance of this Clinical Affiliation Agreement by any conduct, including the paying or giving of any fee, commission, compensation, gift, gratuity, or consideration of any kind, directly and indirectly, to any State employee, officer or official.

10. Compliance Statement.

A. In the performance of their obligations under this Agreement, the parties will comply with all applicable laws and regulations. Without limiting the generality of the foregoing, the parties will observe and comply with the provisions relating to the federal Anti-Kickback statute, set forth at 42 U.S.C. & 1320a-7b (b) ("Anti-Kickback Statute"), and the federal prohibition against physician self-referrals, set forth at 42 U.S.C. & 1395nn ("Stark Law").

B. Nothing contained in this Agreement will be construed to require any University Staff (as that term is defined herein) to refer patients to the Facility, nor will University track any referrals made by any University Staff, nor will any compensation paid by University to any University Staff performing services under this Agreement be related to the volume or value of referrals by such University Staff to the Facility and such compensation will be consistent with fair market value as determined in arms'-length transactions.

C. In no event will any payments, grants, or other funding from the Facility to the University be based unlawfully, directly or indirectly, on the volume or value of referrals or other business generated between the parties.

D. Notwithstanding anything to the contrary herein, all payments associated with this Agreement are intended to comply with the requirements of applicable New Jersey State Laws, such as the Codey Law, N.J. S. A & 45:9-22.4 et seq. (as it may be amended from time to time) and the regulations promulgated thereunder.

E. Each party represents and warrants that it will not violate the Anti-Kickback Statute or the Spark law, with respect to the performance of its obligations under this Agreement.

F. To the extent that the compliance office of a party to this Agreement receives a report or otherwise has knowledge of an allegation that an employee of the other party has or probably has violated the Anti-Kick-back Statute, the Stark Law or the Federal False Claims Act with respect to the performance of its obligations under this agreement, and the party believes such information to be reasonably credible, such party will report the probable violation to the compliance office of the other party.

11. Counterparts.

This clinical Affiliation Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

12. Patient Confidentiality.

The parties shall keep all patient information confidential in accordance with all applicable federal and state laws and regulations including, but not limited to, the Health Insurance Portability and Accountability Act of 1996 ("HIPAA") and the Health Information Technology for Economic and Clinical Health Act (the "HITECH Act"), as amended from time to time.

IN WITNESS WHEREOF, the parties hereto have caused this Clinical Affiliation Agreement to be executed by their duly authorized representatives as of the dates written below.

TOURO UNIVERSITY NEVADA

Name: Raymond Alden III, Ph.D.
(Please print or type)

Signature: _____

Title: Provost

Date: 4/8/19

BIOMEDICAL AND HEALTH SCIENCES

Recommended By:

Name: Frank A. Chinassi, PhD, ABPP
(Please print or type)

Signature: _____

Title: President and CEO

Date: 4/19/19

Approved By:

Name: Andrew Priest, Ed.D. P.T.
(Please print or type)

Signature: _____

Title: Dean College of Health and Human Services

Date: 4/8/2019

Approved By:

Name: Steven Andreassen, Esq.

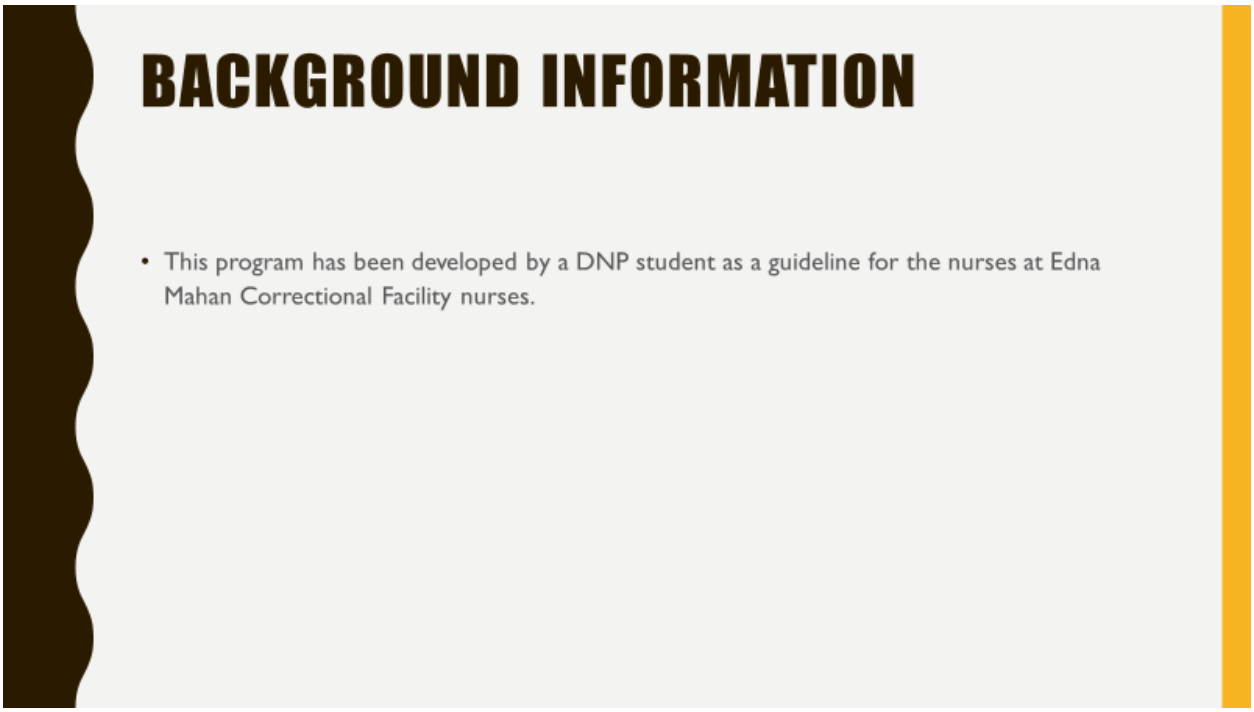
Signature: DocuSigned by: Steven Andreassen C012272A976E442...

Title: Chief of Staff, RBHS Office of the Chancellor

Date: 4/24/2019 | 09:57:49 EDT

Appendix C

PowerPoint Education Presentation



OBJECTIVES:

- Identify why it is important to educate the women about nutrition and physical activity.
- Recognize nutritious food choices.
- Identify ways to incorporate physical activity into the daily schedule of the women.

GUIDELINE

- The dayshift nurses will all receive education on the physical activity and nutrition program via the program developer.
- Each nurse will take a post test to assess for competency of the information taught.
- Each nurse will be validated on their understanding of the material and ability to provide the education to the women via a teach back lesson to the program lead. The program lead will use a competency checklist to standardize the evaluation.
- Sessions will take place during intake, annual health assessment visits, and during scheduled sessions.
- Each woman who enters the facility after the start of the program will receive the education during intake.
- Any woman who has a BMI or 25 or greater will be referred to the weight loss support group.

THE NURSING PROCESS

- Using the Nursing Process, the first step is to assess what the women already know about nutrition and physical activity.
- Asking general questions about their current physical activity routine, how many minutes per day or week are they active, what do they normally purchase at the commissary, what foods do they avoid in the cafeteria is a good place to start.
- Discussing the plan you are going to implement and why its being implemented may help to gain their buy-in.

THE NURSES ROLE

- The nurse will assess the women's current physical activity and nutrition by asking how often they engage in physical activity, how often they eat fruits, vegetables and protein.
- The nurses will educate the women on water intake, nutrition recommendations, and sample exercises.

WHY ARE NUTRITION AND PHYSICAL ACTIVITY IMPORTANT?

- Approximately 177 million people have at least one preventable chronic disease. A majority of these diseases are related to a sedentary lifestyle and poor eating habits. Cardiovascular disease, high blood pressure, type 2 diabetes, and various cancers are connected to an unhealthy diet and lack of exercise (CDC, 2015).
- It is challenging for offenders to maintain or improve their health because of the social and structural environment in prison that contributes to obesity.
- Martinez-Vincente, Baile, and Gonzalez-Calderon (2014) found 56.6 % of inmates are overweight or obese
- It is estimated that 80% of premature stroke, heart disease, type 2 diabetes, as well as 40% of cancers can be avoided through healthy diet, regular physical activity, and avoidance of tobacco use (Vukmirovic, 2015).

WHERE DID THIS INFORMATION COME FROM?

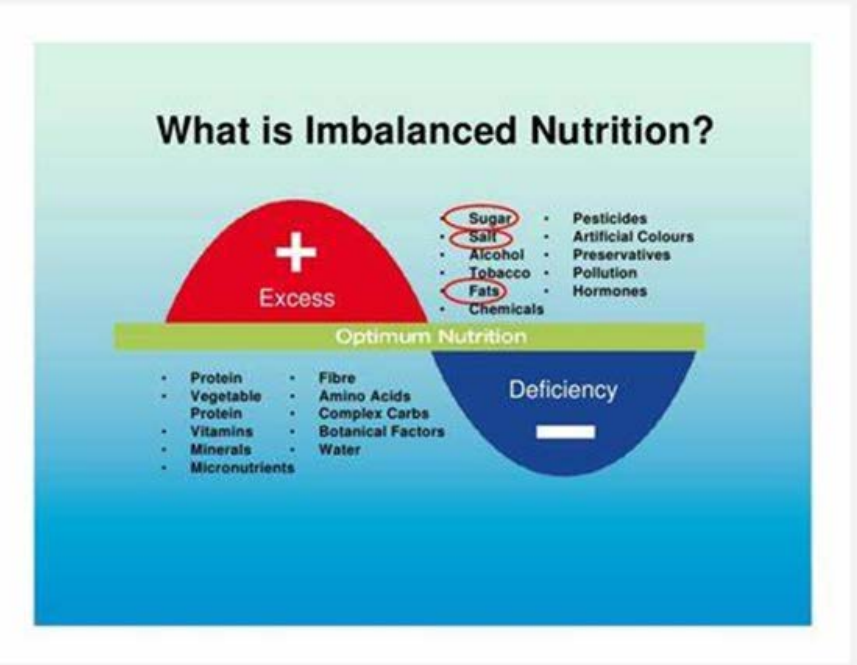
- Created by The Office of Disease Prevention and Health Promotion (2015) The Dietary Guidelines and The Physical Activity Guidelines for Americans 2018.

- Dietary Guidelines This is an hour and thirty minute video on the guidelines to view at your leisure.

What is a calorie?

- By definition a calorie is the energy it takes to raise the temperature of 1 gram of water 1 degree Celsius.
- The important word to take away from this definition is ENERGY.
- Calories are ENERGY that fuel our bodies; much like gasoline fuels our cars.
- Without sufficient calories our heart would not beat, our lungs would not function, and our brain would not work.

US Department of Health and Human Services. (2017). *Dietary guidelines for Americans 2015-2020.* Skyhorse Publishing Inc..Retrieved from https://health.gov/dietaryguidelines/2015/



WATER

- Drinking enough water every day is good for overall health.
- Water has zero calories
- It can help with managing body weight and reducing caloric intake when substituted for drinks with calories, like regular soda (Muckelbauer, Sarganas, Gruneis Muller-Nordhorn, 2013).
- Drinking water can prevent dehydration, a condition that can cause unclear thinking, result in mood change, cause your body to overheat, constipation, and kidney stones Manz (2007).

HOW MUCH WATER?

- The vast majority of healthy people adequately meet their daily hydration needs by letting thirst be their guide.
- There are no specific requirements for water intake, but general recommendations for women are approximately 2.7 liters (91 ounces) of total water -- from all beverages and foods (CDC, 2011).

- CDC (2011). Beverage Consumption Among High School Students — United States, 2010. MMWR Morbitiy and Mortality Weekly Rep.;60(23):778-780.

Low Sodium Diet

- High sodium content
- Sodium occurs naturally in most foods. The most common form of sodium is table salt.
- Sodium is also added to various food products. Some of these added forms are MSG, sodium nitrite, baking soda, and sodium benzoate.
- These are ingredients are in condiments and seasonings such as Worcestershire sauce, soy sauce, onion salt, garlic salt, and bouillon cubes.
- Processed meats, such as bacon, sausage, and ham, and canned soups and vegetables are all examples of foods that contain added sodium.
- Fast foods are generally very high in sodium. Also, processed foods such as potato chips, frozen dinners and cured meats have high sodium content.

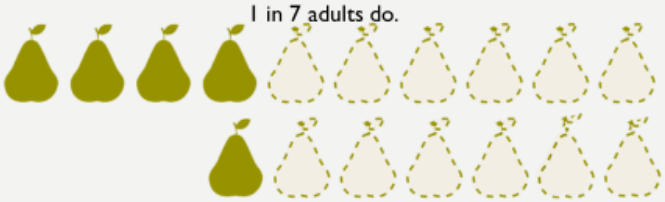
US Department of Health and Human Services. (2017). Dietary guidelines for Americans 2015-2020. Skyhorse Publishing Inc. Retrieved from https://health.gov/dietaryguidelines/2015/

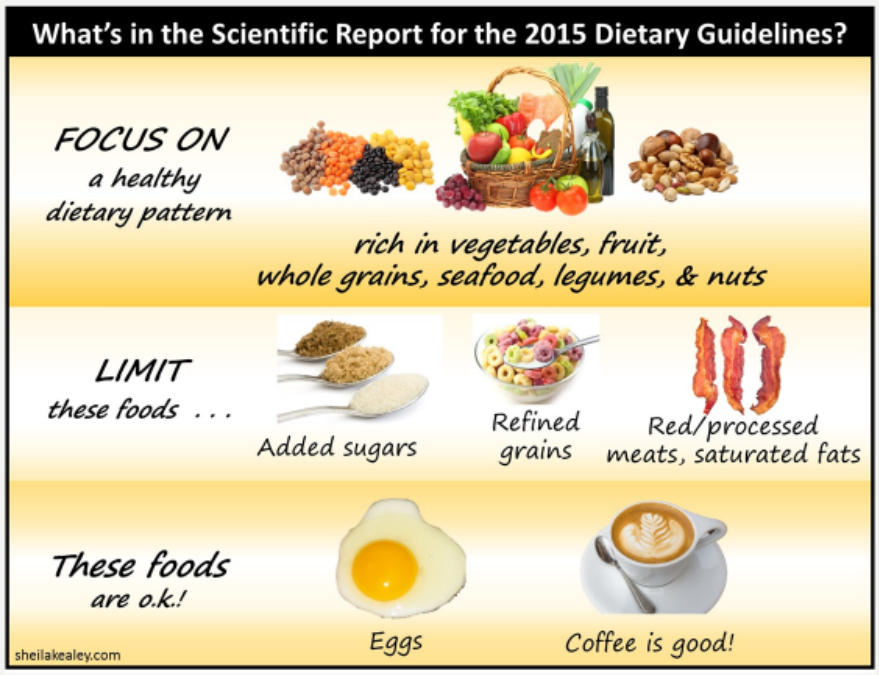
Foods to avoid

- smoked or cured meats
- deli meats
- processed foods
- canned foods
- salted snacks (nuts, chips, & pretzels)
- regular & processed cheese

NUTRITION

Fewer than 1 in 10 adults eat the daily recommended amount of vegetables and 4 in 10 children eat the daily recommended amount of fruits while only 1 in 7 adults do.





PROTEIN

- Protein provides nutrients that are vital for an inmate's health because they are packed with "building blocks" for bones, muscles, cartilage, skin, and blood.
- Protein is a nutrient that helps other body processes like creating enzymes, regulating hormones, and supplying vitamins, which is crucial for maintenance of the body.
- One of the three nutrients providing calories, is protein. It is important to be aware of the type of protein, because some protein sources can be high in saturated fats and cholesterol.
- Lean protein is best, especially for red meats and poultry. Egg whites and most seafood options are excellent choices because they do not include high levels of fat or cholesterol.

US Department of Health and Human Services. (2017). Dietary guidelines for Americans 2015-2020. Skyhorse Publishing Inc..Retrieved from https://health.gov/dietaryguidelines/2015/

PROTEIN

- High protein options can come in many forms.
- Animal sources:
- Red meats
- Poultry
- Eggs
- Seafood
- Plant sources:
- a variety of beans
- soy products
- nuts

FRUITS AND VEGETABLES

- Fruit juice is very rarely 100% fruit, so be aware of the sugar and sodium levels of fruit juice.
- The easiest way to determine if a fruit juice is a good choice is to make sure it has "No Added Sugar" on the label. Fruits are naturally high in sugar, so avoid juices and canned fruits that have added sugar.
- Vegetables are equally valuable to a balanced diet. With less naturally occurring sugars than fruit, vegetables are especially important to include in daily meal choices.
- A rule of thumb for selecting the best vegetable for overall health is to "go green". A green vegetable packs more nutrients than other vegetables like a carrot or beet.

US Department of Health and Human Services. (2017). Dietary guidelines for Americans 2015-2020. Skyhorse Publishing Inc..Retrieved from https://health.gov/dietaryguidelines/2015/

WHOLE GRAINS

- Health.gov explains that "the recommended amount of grains in the Healthy U.S.-Style Eating Pattern at the 2,000-calorie level is 6 ounce-equivalents per day. At least half of this amount should be whole grains".

SNACKING

- Added sugar between meals is counter-productive to a healthy diet so be wary of sweet snacks like cookies, candies and ice cream.
- Even if sugar isn't one of the first few ingredients, nutrition labels hide it by calling it names like "sucrose" or "glucose".
- It is OK to have an unhealthy snack once in awhile. Never allowing any unhealthy snacks or sweets may result in sneaking these foods. The key is balance and moderation!
- Finally, pay attention to the portion size of your snack. Oftentimes, the snack bags are labeled for two or three servings. Look for enough to satisfy a snack craving, which will be around 100 calories.

Fruits:
Focus on fruits.

- Eat a variety of fruit.
- Chose fresh, frozen, canned or dried fruit.
- Go easy on fruit juices.

Vegetables:
Vary your veggies.

- Eat more green dark veggies.
- Eat more orange veggies.
- Eat more dry beans and peas.

Physical Activity
Find your balance between food & physical activity.

- Be physically active for 30 minutes most days of the week.
- Children and teenagers should be physically active for 60 minutes everyday or most days of the week.

ChooseMyPlate

Oils:
Know your fats.

- Make most of your fat sources from fish, nuts and vegetable oils.
- Limit solid fats like butter, stick margarine, shortening, and lard.

Milk:
Get your calcium-rich foods.

- Go low-fat or fat-free
- If you don't or can't consume milk, chose lactose-free products or other calcium sources.

Grains:
Make at least half your grains whole.

- Eat at least 3 ounces of whole grain bread, cereal, rice, or pasta everyday.
- Look for the word "whole" before the grain name on the list of ingredients.

Meats & Beans
Go lean on protein.

- Choose low-fat or lean meats and poultry.
- Bake it, broil it or grill it.
- Vary your choices with more fish, beans, peas, nuts, and seeds.

Source: ChooseMyPlate.gov

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Week At A Glance Report

Calorie 2400

Date	BREAKFAST		LUNCH		SNACK
SUN 19	1 each P/C Juice, 4oz 6 ounce Grits 4 ounce Scrambled Eggs 2 slice Wheat Bread 2 each Oleo Reddie Pats 2 pkt Jelly Packet, Diet 6 pkt Sugar Sub Packet 2 each Milk, Low Fat 8 ounce Coffee	4 ounce 2 ounce 1 slice 1 ounce 2 ounce 4 ounce 2 each 4 ounce 8 ounce	(R) Taco Meat 4 oz. Ground Beef 2 oz American Cheese 1 slice Diced Tomatoes Shredded Lettuce Corn Tortilla,flour Fruit Cocktail Bev, Sugar Free	1 each 4 ounce 6 ounce 2 slice 2 each 1 each 8 ounce 1 each	Baked Chicken Leg (R) Spanish Rice Spinach Wheat Bread Oleo Reddie Pats Orange Bev, Sugar Free Milk, Low Fat
MON 20	1 each P/C Juice, 4oz 2 each Breakfast Sausage Link 2 each Waffles 2 each Oleo Reddie Pats 2 pkt Syrup, Diet 6 pkt Sugar Sub Packet 2 each Milk, Low Fat 8 ounce Coffee	4 ounce 6 ounce 4 ounce 6 ounce 2 slice 2 each 4 ounce 8 ounce	Noodles 4oz (R) Soup, Vegetable Braised Beef (R) Green Beans Wheat Bread Oleo Reddie Pats Peach Slices Bev, Sugar Free	1 each 2 oz ladle 1 slice 6 ounce 4 ounce 2 slice 2 each 1 each 8 ounce 1 each	Plain Veal Pattie (R) Tomato Sauce American Cheese Mixed Vegetable ZIti, Pasta 4oz Wheat Bread Oleo Reddie Pats Apple Bev, Sugar Free Milk, Low Fat
TUE 21	1 each P/C Juice, 4oz 6 ounce Perina 2 each Hard Cooked Egg 2 slice Wheat Bread 2 each Oleo Reddie Pats 2 pkt Jelly Packet, Diet 6 pkt Sugar Sub Packet 2 each Milk, Low Fat 8 ounce Coffee	4 ounce 4 ounce 6 ounce 2 ounce 2 slice 2 each 2 each 1 each 8 ounce	Sliced Diet Turkey (R) Potato Salad Carrot Coins Shredded Lettuce- Wheat Bread Oleo Reddie Pats Mustard Packet Orange Bev, Sugar Free	4 ounce 4 ounce 2 ounce 4 ounce 2 slice 2 each 4 ounce 1 each 8 ounce	Spaghetti (R) Meat Sauce Ground Beef 2 oz (R) Green Beans Wheat Bread Oleo Reddie Pats Pears, Diced Bev, Sugar Free Milk, Low Fat
WED 22	1 each P/C Juice, 4oz 2 each Peanut Butter 4 ounce Hash Brown Potatoes 2 slice Wheat Bread 2 each Oleo Reddie Pats 2 pkt Jelly Packet, Diet 6 pkt Sugar Sub Packet 2 each Milk, Low Fat	1 each 1 slice 4 ounce 4 ounce 1 each 2 each 1 each 8 ounce	Hamburger American Cheese Potato Puff 4 oz Pickled Beet and Onion Salad Hamburger Roll Ketchup Packet Apple Bev, Sugar Free	4 ounce 1 slice 4 ounce 2 slice 2 each 1 each 8 ounce 1 each	Sliced Diet Turkey Steamed Rice (R) Peas and Carrots Wheat Bread Oleo Reddie Pats Banana, Petite Bev, Sugar Free Milk, Low Fat
THU 23	1 each Banana, Petite 6 ounce Oatmeal 4 ounce Scrambled Eggs 2 slice Wheat Bread 2 each Oleo Reddie Pats 2 pkt Jelly Packet, Diet 6 pkt Sugar Sub Packet 2 each Milk, Low Fat 8 ounce Coffee	4 ounce 2 oz ladl 4 ounce 6 ounce 2 slice 2 each 1 each 8 ounce	Meatloaf (Home Made) Beef Gravy Buttered Noodles 4oz (R) Carrots Wheat Bread Oleo Reddie Pats Apple Bev, Sugar Free	4 ounce 4 ounce 6 ounce 2 slice 2 each 4 ounce 8 ounce 1 each	(R) Chicken Tenders (R) Yellow Rice (R) Peas Wheat Bread Oleo Reddie Pats Fruit Cocktail Bev, Sugar Free Milk, Low Fat
FRI 24	1 each P/C Juice, 4oz 2 each Pancakes 2 each Breakfast Sausage Link 2 each Oleo Reddie Pats 2 pkt Syrup, Diet 6 pkt Sugar Sub Packet 2 each Milk, Low Fat 8 ounce Coffee	4 ounce 4 ounce 6 ounce 2 slice 2 each 4 ounce 8 ounce	(R) Chicken Tenders Potato Puff 4 oz Summer Medley Wheat Bread Ketchup Packet Pears, Diced Bev, Sugar Free	4 ounce 4 ounce 6 ounce 2 slice 2 each 4 ounce 8 ounce 1 each	Unbreaded Fish (R) Macaroni and Cheese (R) Stewed Tomatoes Wheat Bread Oleo Reddie Pats Pineapple, Crushed Bev, Sugar Free Milk, Low Fat
SAT 25	1 each Banana, Petite 3 ounce Rice Crispy 2 each P/C Peanut Butter 2 slice Wheat Bread 2 each Oleo Reddie Pats 2 pkt Jelly Packet, Diet 6 pkt Sugar Sub Packet 2 each Milk, Low Fat 8 ounce Coffee	6 ounce 4 ounce 4 ounce 2 ounce 2 each 2 slice 1 each 8 ounce	(R) Bean Soup Seafood Salad (R) Macaroni Salad Shredded Lettuce- Tomato Slices Wheat Bread Orange Bev, Sugar Free	3 ounce 2 ounce 1 slice 4 ounce 6 ounce 2 each 4 ounce 8 ounce 1 each	(R) Taco Meat Ground Beef 2 oz American Cheese (R) Yellow Rice Summer Medley Tortilla,flour Peach Slices Bev, Sugar Free Milk, Low Fat

Wanda Selvey MS RD 2/27/17

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THU 23	1 each	Banana, Petite	4 ounce	Meatloaf (Home Made)	4 ounce	(R) Chicken Tenders
	6 ounce	Oatmeal	2 oz lad	Beef Gravy	4 ounce	(R) Yellow Rice
	4 ounce	Scrambled Eggs	4 ounce	Buttered Noodles 4oz	6 ounce	(R) Peas
	2 slice	Wheat Bread	6 ounce	(R) Carrots	2 slice	Wheat Bread
	2 each	Oleo Reddie Pats	2 slice	Wheat Bread	2 each	Oleo Reddie Pats
	2 pkt	Jelly Packet, Diet	2 each	Oleo Reddie Pats	4 ounce	Fruit Cocktail
	6 pkt	Sugar Sub Packet	1 each	Apple	8 ounce	Bev, Sugar Free
	2 each	Milk, Low Fat	8 ounce	Bev, Sugar Free	1 each	Milk, Low Fat
	8 ounce	Coffee				
FRI 24	1 each	P/C Juice, 4oz	4 ounce	(R) Chicken Tenders	4 ounce	Unbreaded Fish
	2 each	Pancakes	4 ounce	Potato Puff 4 oz	4 ounce	(R) Macaroni and Cheese
	2 each	Breakfast Sausage Link	6 ounce	Summer Medley	8 ounce	(R) Stewed Tomatoes
	2 each	Oleo Reddie Pats	2 slice	Wheat Bread	2 slice	Wheat Bread
	2 pkt	Syrup, Diet	2 each	Ketchup Packet	2 each	Oleo Reddie Pats
	6 pkt	Sugar Sub Packet	4 ounce	Pears, Diced	4 ounce	Pineapple, Crushed
	2 each	Milk, Low Fat	8 ounce	Bev, Sugar Free	8 ounce	Bev, Sugar Free
	8 ounce	Coffee			1 each	Milk, Low Fat
SAT 25	1 each	Banana, Petite	6 ounce	(R) Bean Soup	4 ounce	(R) Taco Meat
	3 ounce	Rice Crispy	4 ounce	Seafood Salad	2 ounce	Ground Beef 2 oz
	2 each	P/C Peanut Butter	4 ounce	(R) Macaroni Salad	1 slice	American Cheese
	2 slice	Wheat Bread	2 ounce	Shredded Lettuce-	4 ounce	(R) Yellow Rice
	2 each	Oleo Reddie Pats	2 each	Tomato Slices	6 ounce	Summer Medley
	2 pkt	Jelly Packet, Diet	2 slice	Wheat Bread	2 each	Tortilla,flour
	6 pkt	Sugar Sub Packet	1 each	Orange	4 ounce	Peach Slices
	2 each	Milk, Low Fat	8 ounce	Bev, Sugar Free	8 ounce	Bev, Sugar Free
	8 ounce	Coffee			1 each	Milk, Low Fat

Laura Schuyler MS RD 2/27/17

NJDOC Page 4 of 21 Mon Feb 27, 2017 11:38 AM

According to the 2015-2020 Dietary Guidelines for Americans, women are likely to need between 1,600 and 2,400 calories a day. However, this depends on their age, size, height, lifestyle, overall health, and activity level. In the menu above, each days total calories are approximately 2,400. This is without any snacks.

COMMISSARY

- Commissary is a term for the service from which inmates are allowed to purchase items.
- Commissary orders are taken and processed either monthly or bimonthly, depending on the unit.

COMMISSARY ITEMS

PICK THIS

- Peanut Butter crackers
- Nuts
- Dried Fruit
- Bottled water
- Fresh fruit will be offered on Mondays and Wednesdays

NOT THAT

- M&Ms
- Swedish Fish
- Frosted Flakes

	Category: PREPARED AND PRESERVED FOOD$		
07004	CREAMY PEANUT BUTTER PACKET 2OZ	None	0.27
07200	TORTILLAS 6CT ****K	None	0.80
07400	HOT CHILI W/BEANS 11.25OZ ****GF	None	1.39
07401	CHILI W/BEANS 11.25OZ ****GF	None	1.39
07402	CHICKEN BREAST 4.5OZ ****H/A	None	2.21
07406	JACK LINK'S ORIGINAL BEEF STEAK 2OZ	None	2.21
07409	BACON SINGLES 6 SLICES .78OZ	None	1.80
07411	BEEF & CHEESE STICK 1.125OZ	None	0.56
07413	BEEF SUMMER SAUSAGE HOT 5OZ	None	1.44
07414	BEEF SUMMER SAUSAGE REGULAR 5OZ	None	1.44
07415	MEATBALLS IN SPAGHETTI SAUCE 10OZ	None	2.20
07416	HORMEL SPAM SINGLE 2.5OZ	None	1.03
07417	BEEF STEW 11.25OZ	None	1.86
07420	TURKEY SUMMER SAUSAGE SWEET 5OZ****GF	None	1.50
07425	TURKEY BACON 3OZ ****HA	None	3.95
07427	BUFFALO STYLE CHICKEN BITES 4OZ	None	2.08
07430	BBQ CHICKEN STK & CHEESE STK, 2PK, 2 OZ	None	1.33
07431	ROAST BEEF AND GRAVY 10OZ	None	2.70
07432	PEPPERONI SLICES 4OZ	None	1.86
09200	CHUNK LIGHT TUNA 4.23OZ ****K,H	None	1.21
09201	FSH STKS IN LA HOT SCE 3.53OZ ****K,H,GF	None	0.72
09204	YELLOWFIN TUNA STEAK 3.53OZ ****H,GF	None	2.11
09207	MKREL FLTS IN BRINE 3.53OZ ****K,H,H/A	None	0.78
09208	SRDNS IN HOT TOMATO SCE 3.53OZ ****H,GF	None	0.66
10000	VELVEETA SPICY CHEESY RICE 2OZ ****K,H	None	0.59
10001	VELVEETA CHSY REFRIED BEANS 4OZ ****K,H	None	0.98
10002	INSTANT RICE 8OZ ****K	None	0.92
10003	BROWN RICE 6.5OZ****K,H,GF	None	0.91
10100	GREEN OLIVES W/PIMIENTOS 2.5OZ	None	1.20
10101	MIXED VEGETABLES 14OZ***/****HA	None	1.13

CHOOSE THESE FOODS

Chunk Light Tuna

Brown Rice

Mixed Vegetables

Creamy peanut butter packet

	Category: CHEESE		
10600	HABANERO CHEESE TUB 8OZ	None	1.13
10603	PROVOLONE CHEESE STICK 4OZ ****GF	None	1.19
10604	SHARP CHEDDAR CHEESE STICK 4OZ	None	1.19
10605	SHARP SQUEEZE CHEESE 16OZ	None	1.92
10607	JALAPENO SQUEEZE CHEESE 16OZ	None	1.92
10609	SHARP CHEDDAR CHEESE TUB 8OZ	None	1.06
10610	MOZZARELLA CHEESE STICK 4OZ	None	1.81
10614	HABANERO SPREAD 100% REAL CHEESE 8OZ	None	1.81
10615	SHARP CHEDDAR SPREAD 100% REAL CHSE 8OZ	None	1.81
10616	PROVOLONE BRICK 100% REAL CHEESE 4OZ	None	1.81
10617	SHARP CHEDDAR BRICK 100% REAL CHEESE 4OZ	None	1.81
	Category: SAUCES AND SPREADS AND CONDIMENTS		
11400	DILL PICKLE ****K,GF	None	0.56
11401	HONEY 12OZ ****K	None	2.77
11404	HEINZ YELLOW MUSTARD SINGLE 4.5GM ****K	None	0.04
11406	MRS. DASH 2.5OZ ****K,GF	None	2.63
11407	MILD SALSA SQZ BTL 15.5OZ ****K,GF	None	1.53
11411	HEINZ MAYONNAISE SINGLE 9GM ****K	None	0.08
11413	PIZZA SAUCE 15.5OZ	None	1.57
11414	STRAWBERRY PRESERVES 12OZ	None	1.44
11415	HEINZ KETCHUP SINGLE 9GM ****K	None	0.07
11416	KRAFT BARBEQUE SAUCE 13OZ	None	2.07
11418	RANCH DRESSING 1.5OZ	None	0.24
11419	GOYA SAZON CON CUL ACH SEASONING 1.41OZ	None	1.37
11420	ASIAN STYLE SWEET CHILI SAUCE 16OZ	None	2.99
11421	GARLIC POWDER 2.5OZ	None	1.06

** Quantity requested cannot exceed the present limits of the Category, Subcategory or Item. The item that exceeds a limit will be rejected.
* Taxes as applicable *** While supplies last **** Key: K=Kosher H=Halal GF=Gluten Free H/A=Healthy Alternative

Jul 1, 2019 FEMALE GENERAL POPULATION Page 2 of 17

BEST CHOICES

Limit cheese selection to 4 oz

Choose mustard over mayonnaise and Ranch dressing

	Category: BREAKFAST FOODS		
04200	GRANOLA BARS VARIETY 8PK 6.7OZ ****K,H/A	None	2.82
04201	STRAWBERRY CEREAL BAR 1.3OZ ****K,H/A	None	0.21
04203	QUAKER OATMEAL VARIETY PK 10CT ****K,H/A	None	1.92
04211	RAISIN BRAN 20OZ ****K	None	3.10
04212	FROSTED FLAKES 20OZ ****K	None	2.92
04215	HONEY NUT TOASTED OATS 20OZ ****K	None	3.43
04220	FROSTED MINI WHEAT 20OZ	None	2.20
04223	BERRIES BUNCH O'KRUNCH 20OZ	None	2.80
04230	CINN RAISIN BAGEL 4OZ ****K	None	0.47
04242	PLAIN BAGEL 4OZ ****K	None	0.44
04250	INSTANT BRKFST DRINK MIX VAN 10CT****K	None	5.25
04260	ENERGY BAR,FDGE BRWNE 2.64OZ****GF	None	1.31
04276	BLUEBERRY POP-TARTS 8PK	None	1.97
	Category: CAKES PIES AND PASTRIES		
05600	APPLE DANISH 4.25OZ ****K	None	0.61
05601	BLUEBERRY CHEESE DANISH 4.25OZ ****K	None	0.61
05602	DUNKIN DONUT STICKS 6PK 10OZ ****K	None	1.36
05604	ICED CINNAMON ROLL 4OZ ****K	None	0.62
05608	ICED HONEY BUN 6OZ	None	0.59
05616	CREAM CHEESE POUND CAKE 2PK 4OZ ****K	None	0.63
05617	PEANUT BUTTER WAFERS 6-2PKS 12OZ	None	1.76

CHOOSE THESE FOODS

Oatmeal

Peanut butter waffer

PHYSICAL ACTIVITY CAN HELP…

- Increase chances of living longer
- Feel better about self
- Decrease your chances of becoming depressed
- Sleep well at night
- Move around more easily
- Have stronger muscles and bones
- Stay at or get to a healthy weight

- https://www.choosemyplate.gov/physical-activity-why

WHEN YOU ARE NOT PHYSICALLY ACTIVE, YOU ARE MORE LIKELY TO:

- Get heart disease
- Get type 2 diabetes
- Have high blood pressure
- Have high blood cholesterol
- Have a stroke

- https://www.choosemyplate.gov/physical-activity-why

PHYSICAL ACTIVITY

- Aim for at least 30 minutes 5 times a week
- Physical activity simply means movement of the body that uses energy. For health benefits, physical activity should be moderate or vigorous intensity. The intensity depends on the extent to which they make you breathe harder and your heart beat faster.
- Moderate physical activity: walking briskly (about 3.5 miles per hour), riding the stationary bike at less than 10 miles per hour, dancing.
- Vigorous physical activity: Running (5 miles per hour), walking (4.5 miles per hour), biking more than 10 miles per hour

- Center for disease prevention and control. Retrieved from, https://www.choosemyplate.gov/physical-activity-why

PHYSICAL ACTIVITY

- The following slides will discuss various exercises.
- These exercises are designed to help build strength, improve balance, and increase flexibility. In addition to at least 30 minutes of moderate-intensity physical activity, include these exercises into the daily program.
- It would be suggested to demonstrate the exercises to the women and have them perform a return demonstration.

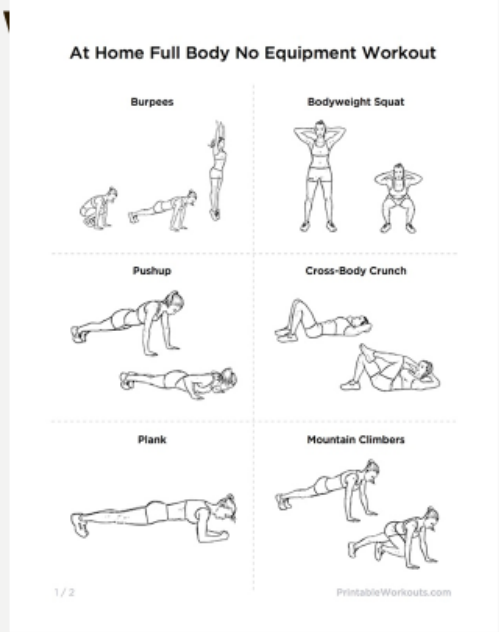
- Office of Disease Prevention and Health Promotion. 2015–2020 Physical activity guidelines for Americans. Retrieved from, https://health.gov/paguidelines/

PHYSICAL ACTIVIT

- Examples of Exercises to be done

  In the cell:

  - Burpees
  - Bodyweight squats
  - Pushup
  - Cross-Body Crunch
  - Plank
  - Mountain Climbers
  - Jump-n-Jacks
  - Lunges
  - Tricep Dips



SAMPLE CELL WORKOUT

- 5 minutes of Walking in place
- 15 Leg Curls (Right Side)
- 15 Side Leg Raise (Right Side)
- 15 Wall Push Ups
- 15 Arm Raises
- 15 Second Plank Hold
- Repeat (Perform exercises on left side

WARM-UP FOR 5 MINUTES BY WALKING IN PLACE

1 Walking in Place

- Stand up
- Walk in place, raising knees as high as possible
- Continue for 2 minutes
- Breathe deeply while walking

LEG CURLS

2 Leg Curls

- Stand behind chair and grasp its back
- Keeping knees together, lift your right leg to make a right angle
- Count to 10 holding this position
- Lower foot to the floor
- Repeat 5 times
- Repeat with left leg

STANDING LEG CURL... LET'S PRACTICE!

SIDE LEG RAISES

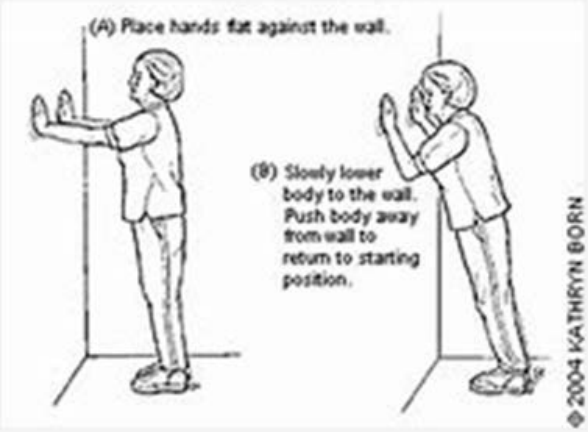
- Stand behind chair, holding its back with one hand
- Keeping back and both legs straight, slowly lift right leg 6-10 inches out to the side
- Hold right leg out for 10 seconds
- Repeat 5 times
- Repeat with left leg

SIDE LEG RAISES... LET'S PRACTICE!

TRICEP WALL PUSH-UPS

- Stand facing the wall with arms extended and palms flat on the wall
- Keeping body straight, lean towards the wall bringing face close to wall
- Push against the wall to return to a straight, standing position
- Repeat 10 times

WALL PUSH UPS... LET'S PRACTICE!



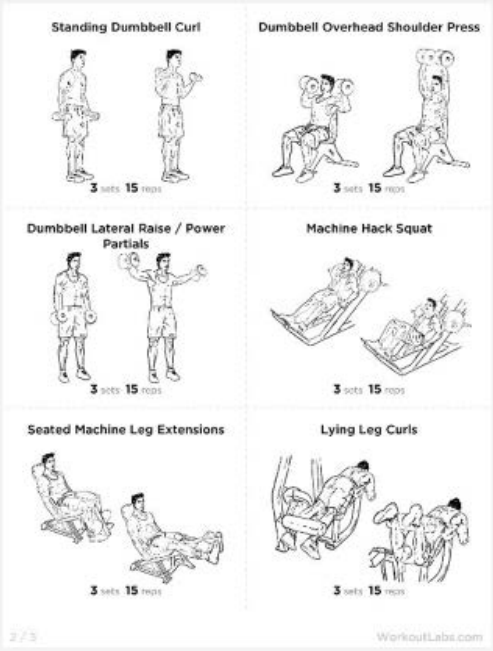
ARM RAISES

- Sit or stand
- Begin with arms straight down at sides, palms inward
- Raise both arms to side, shoulder height
- Hold position for 1 second
- Slowly lower arms
- Repeat 10 times

ARM RAISES... LET'S PRACTICE!

IN THE FITNESS CENTER

- Mix in cardiovascular, weight training, and stretching
- Hit all of the muscle groups
- Tricep dips, push ups, dumb bell curls, lunges, sit ups, side and front arm raises
- A sample workout would include 3 sets of 10 repetitions of each exercise on the following slide.
- There will always be someone who is trained in the program in the fitness center to assist the women with the exercises.



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Appendix D

Nutrition and Physical Activity Content Test

1. Choose the goals of the nutrition and physical activity project include (select all that apply)
    a. Reduce the incidence and prevalence of overweight and obesity by reducing Calorie intake and increasing physical activity
    b. Reduce the intake of foods devoid of nutrients and excess in sodium and Calories from solid fat, added sugars and refined grains
    c. Meet 2008 physical activity guidelines for Americans
    d. Changing the menu selections
2. A majority of chronic conditions are related to (select all that apply)
    a. Sedentary lifestyle
    b. Poor eating habits
    c. Drinking a lot of water
    d. Walking daily
3. How often would you recommend the women to exercise?
    a. 7 days a week
    b. 1 hour a day
    c. 30 minutes 5 days a week
    d. Whenever someone wants to
4. Select what the intensity of exercise depends on?
    a. The extent to which they make you breathe harder and your heart beat faster
    b. How fast someone exercises
    c. How long they exercise for
    d. What exercise they do
5. Determine what activities are appropriate to teach the women to perform in their cell.
    a. Jump-n-jacks
    b. Squats
    c. Walking in place
    d. All of the above
6. What can happen if someone does not drink enough water?
    a. Diarrhea, vomiting, and headache
    b. Unclear thinking, mood change, overheat, constipation, and kidney stones
    c. Excessive energy
    d. Inability to sleep
7. Select how many calories are appropriate for a snack.
    a. 2000
    b. 400
    c. 250
    d. 100

8. Choose the healthiest commissary items
    a. Peanut butter, Ramen noodles, and jelly packets
    b. Chunk light tuna, brown rice, and mixed vegetables
    c. Mixed vegetables, Velveeta, and pepperoni slices
    d. Pepperoni slices, Ranch dressing, and peanut butter
9. Distinguish foods with high sodium content (select all that apply)
    a. Strawberries
    b. Whole wheat pasta
    c. Canned vegetable soup
    d. Bacon
10. Select the protein sources (select all that apply)
    a. Nuts
    b. Turkey
    c. Soy products
    d. Seafood

Answers: 1. ABC, 2. AB 3. C 4.A 5. D 6. B 7. D 8. B 9. CD 10. ABCD

Appendix E

CVI/CVR For Pre and Post Test Questions

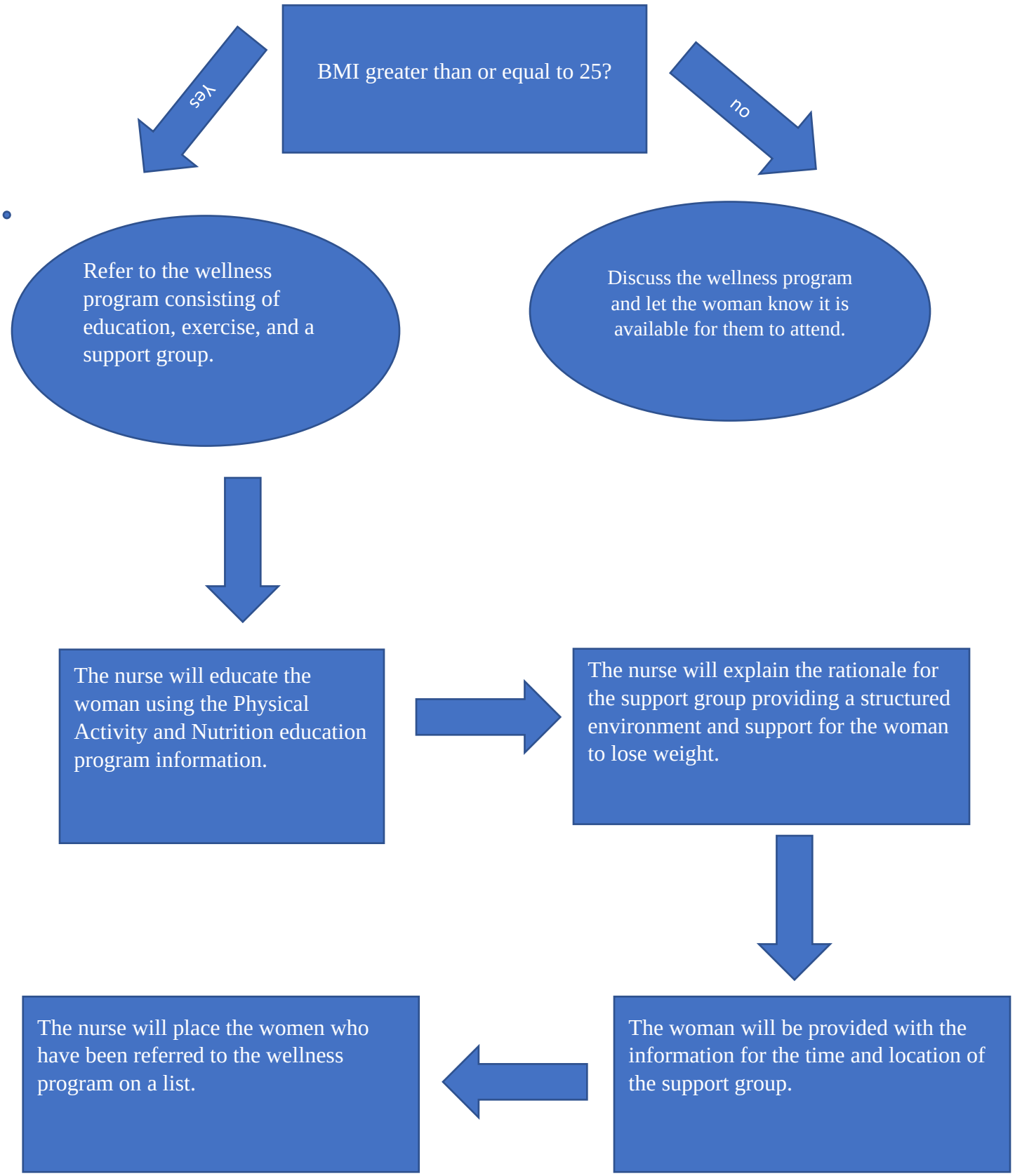
ITEM NUMBER	EXPERT 1	EXPERT 2	EXPERT 3	MEAN
1	4	4	4	4
2	4	4	4	4
3	4	4	4	4
4	4	4	4	4
5	4	4	4	4
6	3	4	3	3.67
7	4	4	4	4
8	4	4	4	4
9	3	4	4	3.67
10	4	4	4	4

The mean total of all of the means was 3.934 indicating that all of the questions were highly relevant.

Appendix F

Referral Protocol

- Begin by obtaining the inmates vital signs, height, and weight. Calculate the BMI.
- Any inmate who is seen during intake, routine or chronic care visit with a BMI of 25 or greater will be referred to the wellness program consisting of education, exercise, and a support group.
- The nurse will educate the inmate using the Physical Activity and Nutrition education program information.
- The nurse will explain the rationale for the support group providing a structured environment and support for the woman to lose weight.
- The inmate will be provided with the information for the time and location of the program
- The nurse will place the inmate’s name he/she has referred to the wellness program on a list.
- The list will be kept in the nursing supervisor’s office.
- This list will be used for tracking and monitoring of the inmate’s BMI and use of the exercise room.


BMI greater than or equal to 25?
yes
no
Refer to the wellness program consisting of education, exercise, and a support group.
Discuss the wellness program and let the woman know it is available for them to attend.
The nurse will educate the woman using the Physical Activity and Nutrition education program information.
The nurse will explain the rationale for the support group providing a structured environment and support for the woman to lose weight.
The woman will be provided with the information for the time and location of the support group.
The nurse will place the women who have been referred to the wellness program on a list.

Appendix G

Competency Checklist

The program lead will observe each nurse who will be teaching the program in performing a teach-back demonstration session. The nurse must discuss at least 8 out of the 10 competency points listed below to be validated to teach the program.

Competency	Yes	No
11. Assesses the woman's nutrition and physical activity knowledge		
12. Assesses the woman's current nutrition and physical activity habits		
13. Educated the woman on risk factors associated with poor nutrition and inactivity		
14. Educated the woman on what a calorie is		
15. Educated the woman on sodium intake		
16. Educated the woman on healthy food options		
17. Educated the woman on physical activity benefits		
18. Educated the woman with a return demonstration on at least four activities the woman can do in their cell		
19. Educated the woman on activities they can do in the fitness center and when they can access the fitness center		
20. Asked the woman for a return teach-back on three main points about nutrition		

Appendix H

Compliance Checklist

Directions: Indicate the nurses' unique number, and Y or N in columns 2, 3,4, and 5. Indicate and I for intake or R for routine in column 6.

Nurse Number	Education provided on physical activity	Education on nutrition	Demonstration of exercises for fitness room	Demonstration of exercises to be performed in the cell	Intake Or Routine Visit

Appendix I

IRB Determination

From: Christina Prestien-La Penta <presticm@ubhc.rutgers.edu>
Sent: Monday, September 16, 2019 6:18 AM
To: Margo Wallace <margow@camden.rutgers.edu>
Cc: John Gasataya <john.gasataya@rutgers.edu>
Subject: Re: DNP clinical

Margo,
We do not need an IRB.
Thanks
Chris