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Evaluation of the Train 2 Run Program at the Joplin VA Community Based Outpatient Clinic (CBOC)

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EVALUATION OF THE TRAIN 2 RUN PROGRAM AT THE JOPLIN VA COMMUNITY-BASED OUTPATIENT CLINIC

A Scholarly Project Submitted to the Graduate School in Partial Fulfillment of the Requirements for the Degree of Doctor of Nursing Practice

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An Abstract of the Scholarly Project by
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The purpose of this project was to evaluate the effectiveness and satisfaction levels of participants in the Train 2 Run program that was started at the Joplin VA in Joplin, MO. The program was from May 3, 2022, to October 8, 2022, for a total of 5 months. The participants for this study were selected from the patients, family members, and staff who participated in the Train 2 Run program for a minimum of six weeks. The participants were asked to fill out the Physical Activity Group Evaluation Questionnaire (PAGEQ) for analysis of perceived cohesion and satisfaction. Objective data, such as HgbA1c values, LDL cholesterol values, weight, and blood pressure readings were evaluated for participants who are patients of the Joplin VA clinic. Results of this project found participants reported a high level of satisfaction with the program and a high level of cohesion. No statistically significant improvements were noted with blood pressure readings, HgbA1c values, or LDL values, but there was a statistically significant improvement noted in weight loss. The small sample size (n=4) of veteran participants was a limiting factor in measurement of improvement for HgbA1c and LDL values.

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Chapter I

Introduction

Many young men and women in the United States voluntarily join the nation's military service. These individuals must endure basic training which not only trains them in how to be a soldier, but it also increases their physical health by the exercise and training they endure. Every person who has served in the United States armed forces had to be in excellent physical condition when serving active duty, as this was a requirement. All branches of the service, (Army, Navy, Air Force, Marine Corps, and Coast Guard) have physical standards that service men and women must meet to prove they are fit for duty. But what happens when the soldier is no longer serving? Do they continue their physical activity/conditioning, or do they adopt a more sedentary lifestyle? Many do not continue to maintain physical fitness, and thus become obese. At the local Veterans Administration (VA) community-based outpatient clinic (CBOC) in Joplin, MO, a new program was developed to encourage veterans to become more active by participating in a group exercise program. The Train 2 Run program (T2R) was developed to help veterans increase physical activity in a group setting. This program could be of great benefit to the veterans that utilize the VA for their health care. With positive evaluations of this program with the Joplin CBOC, there is potential for the

program to be replicated in other locations at other CBOCs. Evaluation of effectiveness is essential to ensure the sustainability of the program.

Description of the Clinical Problem

America has an obesity problem. Obesity is not just a disease unique to one certain population; it is widespread and affects people from all different backgrounds. Veterans are one population that is affected by the obesity epidemic. It is estimated that 70% of veterans are obese or overweight (Littman et al., 2012). Obesity is not just about being "fat"; it is an indicator of an unhealthy lifestyle, as many health issues are related to obesity. The VA has recognized the obesity problem and has developed programs, such as the MOVE! to help the veteran patient develop healthy lifestyles and to lose weight. The VA has a multitude of resources about diet, but group exercise classes that are readily accessible to the veterans of the VA clinic in Joplin, MO, were very sparse. Veterans who utilize the Joplin CBOC needed a group exercise class to help promote healthy lifestyle choices and exercise. The T2R program was developed for this purpose. Veterans are more likely to participate in a group exercise program that is designed for veterans. "Individuals reporting high group cohesion are less likely to discontinue participation in group exercise programs" (Daniels et al., 2016, p.18.). The class was started in May of 2022, with a goal of being able to walk, run, or roll (for wheelchair bound participants) a distance of 3.1miles (5 kilometers), on October 8, 2022. Participation in this program provided potential to help veterans achieve health goals, such as lowering HgbA1c, lowering LDL, and potentially losing weight.

Significance

Obesity is an increasingly common problem in health care today. The obesity epidemic has significant impact on multiple health conditions, such as type 2 diabetes, hyperlipidemia, hypertension, etc. The CDC states in 2017-2018, over 42% of adult Americans are obese. The veteran population is no exception to these statistics. Approximately 5 million veterans utilize the Veterans Health Administration (VHA) for their health care. The obesity rate among VHA patients nation-wide is 41%, and 37% of the veteran population falls into the overweight category (Breland et al, 2017). A sedentary lifestyle is a major contributor to the obesity epidemic. A program to encourage group exercise, such as a Train to Run program, could help the veteran patient engage in physical activity.

Significance to Nursing

Improving patients' physical activity will help increase their overall health status and will adjust the role of the nurse in the VA primary care clinics. Nursing can go from a culture of providing treatment of disease states to a culture of promoting wellness. More emphasis can be placed on nutrition, smoking cessation, and other wellness topics, rather than education about medications that individuals are taking to treat various disease states. In the VA primary care clinics, case management of chronic disease states is an important piece of providing comprehensive care to veterans. In theory, if nurses are actively managing chronic disease states, patients will do better. Frequently, nurses are not able to perform case management as designed as they are busy addressing urgent needs that patients present to the clinic to have addressed. Many of these needs are

directly related to health conditions that could be significantly improved with the addition of physical activity.

Significance to Patients

The Train to Run program will allow the veterans the opportunity to engage in a structured physical activity with other veterans. "Individuals reporting high group cohesion are less likely to discontinue participation in group exercise programs" (Daniels et al., 2016, p.18). Veterans are a population who have a tendency for high group cohesion. They have all served their country in the various branches of the United States Armed Forces and have an intrinsic bond due to their service experience. The veteran patients have all had to do physical exercise/running as part of their service with the military. Many adopt sedentary lifestyles after discharge/retirement. The Train to Run program would allow veterans to start an exercise program with other veterans of similar backgrounds and experiences. Increasing physical activity will assist with weight loss goals and will promote a healthy lifestyle, thus improving diabetes control, blood pressure control, and lowering cholesterol.

Significance to Society

The benefits of increasing physical activity in veterans will have an economic impact on the VHA overall. If health status can be improved, medications for chronic conditions can be reduced, thus reducing the cost of providing these medications to the veteran the VHA incurs and will also decrease the amount the veteran has to pay out of pocket for his or her medications. The VHA provides medication at no cost/reduced cost to all the veterans it serves (VA, 2023). Not all veterans have medication co-pays, but for those that do, this greatly impacts their personal finances. When one must pay less for

medication, theoretically, they can spend more on making healthier food choices, further improving overall health status.

Purpose

The purpose of this scholarly project was to assess health benefits veterans realized from a group train to run program that ended with a goal to complete a 5K race (3.1 miles) at the Joplin Community Based Outpatient Clinic (CBOC) 5 months after the start of the program. Success of this program leads to the potential for it to be replicated in other CBOCs and VA facilities across the nation.

Project Questions

- Will veterans consistently participate in a Train 2 Run program with other veterans?
- What were the HgbA1c values of program participants at the start of the Train 2 Run program?
- What were the HgbA1c values of the program participants after completion of the Train 2 Run program?
- Was there a significant improvement in veteran participant HgbA1c values after participating in the Train 2 Run program for 5-months?
- What were the LDL values of the program participants at the start of the Train 2 Run program?
- What were the LDL values of the program participants after completion of the Train 2 Run program?
- Was there a significant improvement of veteran participant LDL values after participating in the Train 2 Run program for 5 months?

- What was the level of group cohesion reported by the participants in the Train 2 Run program?
- What was the blood pressures of veteran participants prior to starting the Train 2 Run program?
- What were the blood pressures of veteran participants after completion of the Train 2 Run program?
- Was there a significant change in blood pressure for Train 2 Run veteran participants?
- Was there a change in weight of the veterans who utilize the Joplin VA clinic for their health after completing the Train 2 Run program?
- Will participating veterans experience significant weight loss over a 5-month period?
- What was the level of satisfaction associated with the Train 2 Run program as reported by program participants?

Theory

The nursing theory selected for the Train 2 Run program is the Health Promotion Model by Nola Pender. This theory encourages patients to make healthy lifestyle choices. It is encouraging patients to seek lifestyle choices to be healthy and looks at health as not just the absence of disease. The model is based on the following assumptions:

1. People try to create conditions of living through which they can express their unique human potential.

2. People value growth and strive to find a balance between stability and change.

3. People seek to actively regulate their own behavior.

4. People interact with their environment, transforming it and themselves over time. 5. Nurses and other health professionals make up a part of the interpersonal environment, which exerts influence on people throughout their lifespan.

6. Self-initiated reconfiguration of the interactive patterns between people and their environments is necessary for a change in behavior. (Petiprin, 2023, para. 10)

This theoretical framework fits the Train 2 Run project perfectly. The veteran patients that participated in this project have largely chosen unhealthy lifestyle choices (lack of exercise, overeating, smoking, etc., prior to participation in the program). The intention of this program was to make them aware of how beneficial physical activity could be to their overall health status. This program did not require them to be able to run to start. The program helped the veteran to slowly build his or her ability to run/walk for longer periods of time and helped participants identify ways to incorporate physical activity into a daily/weekly routine. While the group met twice a week, veterans were encouraged to continue the activity practiced at least one day a week on their own, thus encouraging the veteran to regulate their own behavior. The first outcomes hoped for from this program is the improvement in the health of the participating veteran. A secondary outcome was for friends and family of the veteran adopting healthier lifestyle habits as they saw how such habits have had a positive impact on the health of the veteran. The group is comprised of veterans; studies have shown that veterans have a higher level of participation in group activities with other veterans (Daniels et al., 2016).

Clinic staff (nurses, providers, lab personnel, social workers, clerical staff) also participated in the training, adding the element of support from the entire clinic staff to the participating veterans. This program provided the opportunity for veterans to learn to make necessary changes to their health without using medications to achieve health goals.

Definition of Key Terms

The key terms and variables used throughout this project are defined below:

1. Healthy weight loss – losing weight at a rate of one to two pounds a week. (CDC, 2021)

2. HEDIS measures – "stands for Healthcare Effectiveness Data and Information Set. Employers and individuals use HEDIS to measure the quality of health plans" (Goodell, 2021, para. 1).

3. HgbA1c – also known as glycosylated hemoglobin; a test that shows an average of the blood sugar level over the past 90 days (Eyth & Naik, 2022, para.1).

4. Joplin Community Based Outpatient Clinic (CBOC) – satellite outpatient clinic of the Veteran's Health System of the Ozarks (VHSO) located in Joplin, MO. This clinic offers primary care services as well as mental health services to veteran patients.

5. LDL Cholesterol – low density lipoprotein; also known as the bad cholesterol (Hoffman, 2022)

6. Obesity – "a BMI of 30 or higher" (Harvard, 2016, para 6).

7. Overweight – "a BMI between 25.0 and 29.9" (Harvard, 2016, para. 6).

8. Train 2 Run Program (T2R) – A progressive exercise/run/jog program to help individuals develop the skills and tolerance necessary to walk or run 3.1 miles.

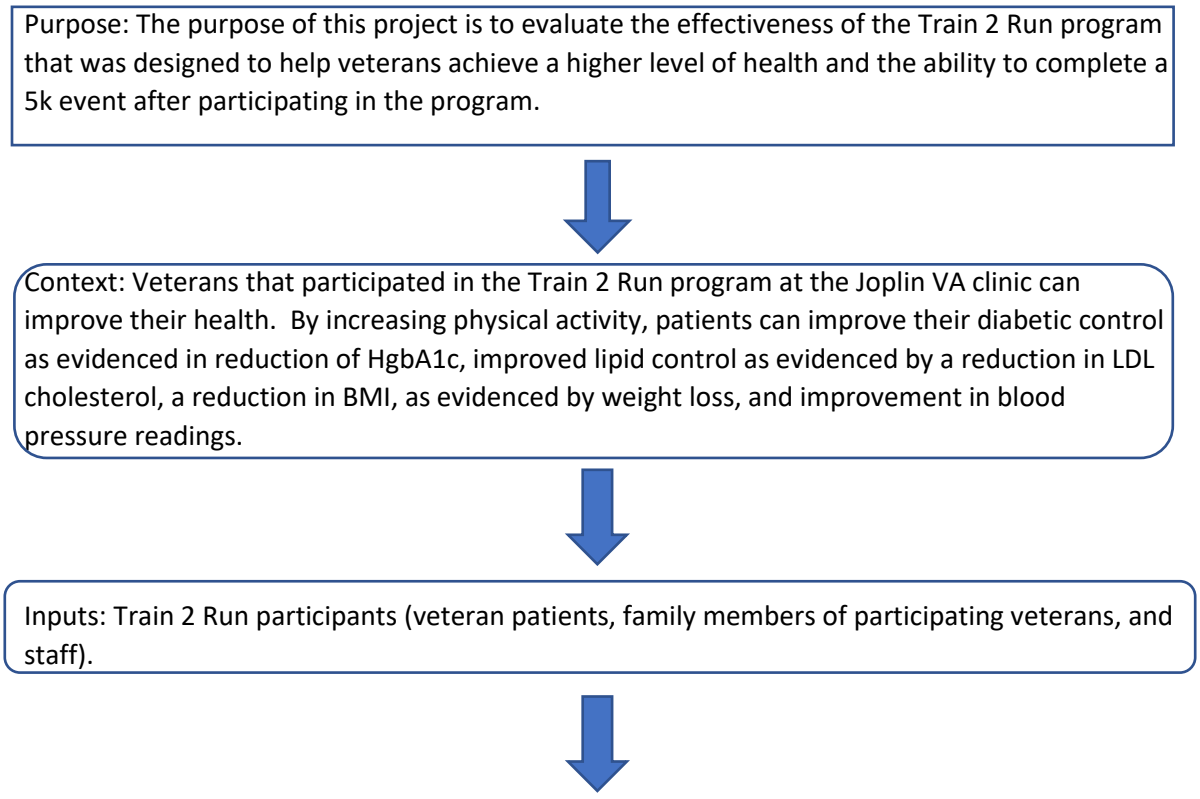
9. Veteran - “a person who served in the active military, naval, or air service and who was discharged or released under conditions other than dishonorable” (VA, 2021, para. 1).

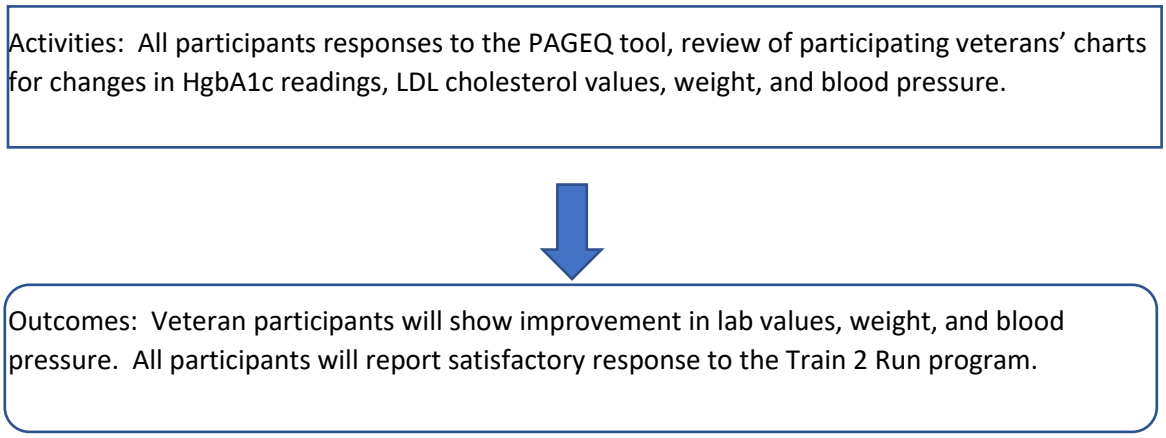
10. Whole Health – a new cutting-edge approach utilized by the Veteran’s Health Administration that centers around what matters to each individual and not what is the matter with that person. The health team gets to know the patient as a person and develops a personalized health plan based on each person’s needs, value s, and goals (VA 2013).

The following logic model describes the purpose, context, inputs, activities, outputs, and outcomes of the proposed evaluation of the Train 2 Run project:

Figure 1

Logic Model





Summary

Obesity is a problem of epidemic proportion in the United States. When veterans of the United States Armed Forces served active duty, they were physically fit. After veterans leave the service, physical fitness often is not a priority, and they will find themselves obese or overweight. Increased physical activity can improve overall health, as it is one important piece of achieving an improved health status.

The VA offers many resources to veterans to help with achieving a higher state of health. The MOVE! program offers diet education and promotes activity, but there were few group exercise activities available at the Joplin CBOC. This program was developed to address the need for a group exercise program at the Joplin CBOC. The evaluation of this program was needed to assess the efficacy and participant satisfaction of a group exercise activity to assist participants to achieve an improved health status. The program could be replicated at not only the Joplin CBOC, but also at VA facilities across the nation.

Chapter II

Synthesis of Literature Reviewed

The primary goal of the Train 2 Run program at the Joplin VA Clinic was to encourage activity among veteran patients to help improve their health status by weight loss, reduced LDL cholesterol levels, and reduced HgbA1c levels. There were very few group physical activity programs available to the veteran patients at the Joplin clinic, therefore this program was created to provide a group activity to encourage physical activity. The literature reviewed for this study was based on a few key concepts. The first concept was to identify obesity as a relative health concern for the veteran population. The next task was to investigate prior studies that had been conducted with the veteran population concerning group exercise programs. How group cohesion increased veteran participation in group exercise programs was a concept that was also reviewed. Finally, the concept that was investigated was provider perception as this program was dependent on provider referrals for patients to participate.

Obesity in the Veteran Population

To evaluate the concept of obesity prevalence in the veteran population, a search was conducted online utilizing the Cumulative Index to Nursing and Allied Health Literature (CINAHL) database accessed through the Axe Library at Pittsburg State University. The terms “obesity” and “veteran” were used to search for literature that was

published within the past 5 years. Several studies confirmed the assumption that obesity was an issue with the veteran population. Studies using VA data were prioritized for review, as they were more pertinent to the purpose of this project.

Obesity was found by all studies reviewed to be more prevalent in veteran populations when compared to non-veteran populations. A research study conducted by Betancourt, et. al., in 2020 sought to "improve the understanding of the commonalities as well as the differences in obesity rates and associated co-morbidities of the U.S. Veteran population and the nation as a whole" (p.3). This study hypothesized that veterans have a higher obesity rate and a higher rate of obesity related co-morbidities than the non-veteran population. The researchers utilized the 2018 Behavioral Risk Factor Surveillance System (BRFSS) data, as it is considered by the Centers for Disease Control (CDC) to be the nation's best resource for health-related survey data. In this survey tool, participants self-identified as a veteran, thus giving a data base that included veterans and non-veterans. After analysis of participant BMI, it was concluded that the veterans had a higher incidence of obesity than the non-veteran population.

The finding of increased prevalence of obesity in the veteran population was also investigated by Breland, et. al, in a 2017 study. Obesity was found to be a significant problem with the veteran population, with veterans having a higher obesity rate than the general population (Breland, et. al., 2017). This study utilized data that was obtained from the Veterans Health Administration (VHA). Data was analyzed from the electronic medical record (EMR) of veterans who had been seen by primary care within 365 days prior to the collection of data. Results found that the veteran population has an obesity risk that was 5% or greater than the national obesity rate. This study concluded that due

to the high prevalence of obesity, the VHA's continued investment in developing effective weight management programs was supported, as losing weight can improve health outcomes.

Obesity prevalence in the veteran population has been studied in detail. Another study that highlighted this finding was a 2018 study conducted by Stefanovics, Potenza, and Pietrzak. This study hypothesized that the prevalence of obesity in the veteran population was rising (p.113). A total of 3,157 U.S. veterans were surveyed by the GfK Knowledge Network, Inc., a survey research company that uses KnowledgePanel, a probability based online survey panel of a nationally representative sample. Results found that obesity was strongly associated with multiple medical conditions, less active lifestyles, reduced health related functioning and a lower quality of life.

The final study reviewed was authored by Vasudevan, et. al (2019) and investigated with how likely obese veterans are to meet physical activity guidelines. Veteran participants were asked to complete the Behavioral Risk Factor and Surveillance System (BRFSS) tool. A mutually exclusive disability variable was created to account for veterans. Results showed a significantly lower percentage of veterans who were obese with any disability met the aerobic activity recommendation when compared to veterans who were obese without a disability. This was the first study to show that veterans with a disability are less likely to meet physical activity requirements and advises that physical activity programs need to consider and make efforts to accommodate veterans with disabilities.

Group Exercise Program Evaluation

The next term that was searched in the database were the terms “group exercise” and “veteran”, with parameters set to exclude any study that was done prior to 2012. The parameters were changed so that pertinent data that could be useful to this evaluation may be included for review. Studies that were focused on how physical activity helped reduce weight and improve overall health status were isolated for review. Of the many studies that were found, five studies were isolated to be pertinent to the veteran population, thus were selected for review.

The first study that was reviewed was a 2012 study by Littman, et. al., to evaluate a weight management program for veterans. Obesity was recognized as a health issue for the veteran population; thus, in 2006 a program was developed for veterans through the Veterans Health Administration (VHA) called the MOVE! program. Data was collected from VA databases in 4 Western states. Participation rates were low; less than 5% of eligible veterans participated in the MOVE! program. This study concluded that overall estimates of effectiveness of this program were low.

Romanova, et. al., additionally conducted a study to assess the effectiveness of the MOVE! program for veterans in Los Angeles in 2013. This study evaluated the VHA electronic medical records of 337 participants who attended at least 3 group sessions. The change in weight from one year pre-enrollment to 1-, 2-, and 3-years post enrollment was analyzed. Results showed that veterans gained weight prior to enrolling in the MOVE! program, but after the first year of participation in the program, weight loss was observed. These findings supported the need for a long-term weight loss program, such as the MOVE! program for veterans.

The MOVE! program effectiveness was evaluated once again by Hoerster, et. al., and was published in 2014. This study evaluated the effectiveness of the MOVE! program for U.S. Veterans with Post-Traumatic Stress Disorder (PTSD). Data was gathered and analyzed from the electronic medical record of participants in this program from 2008 to 2012. The study measured weight loss at 6 months and 12 months in veterans with a diagnosis of PTSD and veterans without the diagnosis of PTSD. The study results showed that veterans with a diagnosis of PTSD had a significantly less weight loss than those without PTSD. The study concluded that the MOVE! program may need adaptation to benefit all veterans, including those with a diagnosis of PTSD.

AuYoung, et. al. (2017), conducted a descriptive study of how researchers working closely with health care leaders can lead to implementation of programs in more timely manner. Research findings often take many years to transition to clinical practice, delaying programs that may be helpful to many. The researchers evaluated how a partnership between research and those who care for the patients led to improved weight loss among veterans. Findings concluded that this type of partnership can successfully implement research in a timely and effective manner.

A 2019 study that was published in *Journals of Gerontology: Medical Sciences* by Hall et al., was reviewed. This study was implemented to bridge the gap in the research regarding exercise and PTSD in older adults. Many of the patients who are seen at the VA are from the Korean and Vietnam eras, thus qualifying them as older adults. Many of these veterans also have a diagnosis of PTSD. This study was valuable in determining if the development of group exercise programs could have a positive response from the veteran patients. Participants were veterans, had a current diagnosis of PTSD, were of age

60 years or older, and lived within 50 miles from the VA medical center. All participants were screened for PTSD, but only those who screened positive for PTSD were included in this study. The progressive, multicomponent exercise program was found to increase participants health status, despite their comorbidities. Results report this study did suggest clinically significant benefits of exercise to those veterans with a diagnosis of PTSD.

In another study conducted in 2019 by Addison, et. al., older veterans were enrolled in a program called Gerofit. It was hypothesized that 6 months of participation in Gerofit would improve mobility function in all veterans, but obese veterans would realize smaller gains. The Gerofit program only included veterans who were age 65 or older and were independent with activities of daily living. The participants were given a progressive exercise prescription which was unique to the participant's needs. Data was analyzed from a given database for storing and tracking program related data behind their medical center firewalls for data security. Significant improvements were found for all performance mobility measures from baseline to 3 months. No further changes were found from 3 months to 6 months.

Veteran Group Cohesion

Those who have served in the United States Armed Forces share a type of comradery or cohesion that those who have not served cannot fully comprehend. This cohesion can be a powerful factor to achieve success with group exercise programs for veterans. The terms "cohesion" and "veteran" were added to the search engine to search for studies that evaluated veteran cohesion. Twenty studies were identified in the CINAHL search engine, with two being identified as pertinent to this project as they

studied cohesion in group exercise programs. One of the two programs that are reviewed was from 2001 but was included due to lack of recent data regarding cohesion in group exercise programs.

The first study reviewed by Fraser and Spink was from 2001. The study examined the role examined group cohesion in exercise compliance. The group studied participants in a clinical rehabilitation exercise program in a midsized city. The participants were not identified as veterans. People, both veterans and non-veterans, will often start an exercise program but will fail to continue to attend. Perceived cohesion was assessed with the Group Exercise Questionnaire (GEC) at week 4 of a 12-week program. Results found that those with high attendance rates (>77%) identified the factor of reliable alliance as an important factor.

The second study reviewed was by Daniels, et. al., and was published in 2016. This study looked specifically at cohesion of older male veterans who participated in a group exercise program. The goal of the study was to show the survey tool, Physical Activity Group Environment Questionnaire (PAGEQ) was an effective tool to measure the relationship between group cohesion scores and frequency and duration of group attendance. Participants were recruited from a walking exercise group at the Milwaukee Veterans Affairs Medical Center (VAMC). Members who attended a regular session in the month of May in 2012 were eligible to participate. Participants filled out the 21 question PAGEQ as well as a supplemental demographic questionnaire. Study results showed the PAGEQ to be easy to use and internally valid. Group cohesion was found not to be significantly associated with high levels of attendance.

Provider Perception

The final term explored was that of provider perception. For any program to be successful, the provider must refer participants to the program. Utilizing the CINAHL data base, the terms "provider perception" and "exercise" were used searched. Several studies were found that assessed how physicians and other health care providers perceived group exercise/weight loss programs. The time parameters were extended to include studies within 10 years, from 2012 to 2022. Two of the studies that were found dealt specifically with veterans. Those studies that dealt with veterans were deemed to be valuable to this project and were reviewed.

In a 2014 study conducted by Arigo, et. al., provider and staff perceptions of attrition of the MOVE! program, a nationwide VHA weight management program, were evaluated. This was a descriptive investigation to explore if provider and staff perceptions about difficulties that may lead patients to withdraw from the MOVE! program. One of the findings of this study was some providers and staff found the lack of in-person exercise programs could be a factor that is attributing to attrition of the MOVE! program. The MOVE! program is dependent on provider referrals. This study identified the lack of in-person exercise instruction as a component of attrition. The authors of this study suggest that making more in-person exercise programs available would increase participation in the MOVE! program. To keep the VA's MOVE! program strong, the addition of in-person exercise groups such as the Train 2 Run group could be beneficial.

In 2015, Arigo, et. al., conducted further study of the perceptions of clinicians regarding the MOVE! program. The goal of this study was to expand previous work in

the area of provider and clinician knowledge and perceptions of the MOVE! program. Programs such as the MOVE! program depend on referrals from primary care providers to refer appropriate patients (overweight or obese). If providers and other clinicians do not perceive the program as beneficial, they will not refer patients. Participants were recruited from four VA regional networks. 2,649 survey links were sent to clinicians, with 754 completing the survey. The survey used was designed by the authors of the study, all of whom had extensive knowledge of the MOVE program. Data was analyzed using descriptive statistics. Overall, respondents agreed that MOVE is effective for weight loss, preventing weight gain, positive behavior change, improving quality of life, increasing physical activity, and ensuring veteran satisfaction. However, a clinician knowledge deficit was noted about the MOVE program.

Summary

The literature reviewed identified several studies that were pertinent to the veteran population. Reviewing key terms such as obesity in the veteran population, group exercise, group cohesion, and provider perception provided multiple resources for review. As shown by the review of relevant studies, group exercise programs can increase weight loss in obese and overweight patients of all ages and can help improve co-morbid conditions. The studies that were reviewed will assist in evaluation of the Train 2 Run program that was recently implemented at the Joplin VA Clinic in Joplin, MO.

Chapter III

Methodology

The Train 2 Run program was developed at the Joplin VA Clinic, also known as the Joplin Community Based Outpatient Clinic (CBOC) in Joplin, MO. This program started on May 2, 2022, and ended on October 8, 2022, with a VA 5K Fun Run event held at a local park. The participants started the program with the goal of being able to complete five kilometers (3.1 miles) by either walking, running, or self-propelling a wheelchair for that distance. If this program was found to be beneficial, there is great potential to be replicated not only at the Joplin CBOC, but other clinics in the VA system.

Project Design

This project was designed to evaluate participant satisfaction and the effectiveness of the Train 2 Run program that was developed at the Joplin CBOC. This program was developed as a pilot program as a component of the Whole Health initiative that the Veterans Administration has recently implemented. The Whole Health initiative is a program that works to integrate different modalities to treat the whole person, concentrating on what matters to them, not what is the matter with them (VA, 2013). The Train 2 Run program was developed as a pilot program to address the lack of physical activity that was observed in the veteran population of the Joplin CBOC. The program is designed to progressively increase exercise tolerance of participants by using an interval

running program. If participants cannot run, they may walk or self-propel a wheelchair if unable to ambulate. This project evaluated the outcomes, both subjective and objective once the program was completed.

Subjective outcomes were measured using a survey adapted from the Physical Activity Group Environment Questionnaire (PAGEQ) (see Appendix A). The outcomes measured were participant satisfaction and level of group cohesion with a group exercise activity. This portion of the study involved all participants, which included veteran patients, spouses of veteran patients, and VA staff who assisted in facilitating the program. Objective data were collected and analyzed for the participants who were patients of the Joplin CBOC. Objective data analyzed included HgbA1c and LDL cholesterol values as well as blood pressure and weight. Survey results and objective data for individuals was not linked. The data sets were be stored and analyzed separately.

Target Population

The population studied for the subjective portion of this study was the participants in the Train 2 Run program at the Joplin CBOC. The purposive sampling method was used. "With this type of sampling, the researcher specifies the characteristics the population of interest and then locates individuals who match those characteristics." (Terry, 2018, p. 120) This study focused on the participants in the Train 2 Run program. This sample included not only veteran patients of the Joplin CBOC, but also veteran patient spouses who participated in the program as well as the VA staff who helped facilitate and run the program. The population studied for the objective portion of this study were veterans over the age of 18 who were patients of the Joplin CBOC who were enrolled in the Train 2 Run program. To be enrolled in the Train 2 Run program, the

veterans had to have a medical release from their primary care provider stating they had no contradiction to this activity. The veteran participants had to attend at least 6 weeks of training to be included in this study. Train 2 Run clinic attendance rosters from the Vista scheduling system were pulled to identify veterans who attended 6 weeks of the program to be included in this study. The list of veterans who were eligible to participate in the study was stored in an Excel file on the VHSO S: drive for research and was accesassed via a government issued computer with PIV-only access.

Protection of Human Subjects

IRB approval was sought from the Veterans Administration and Pittsburg State University under exemption categories EX 2 and EX 4, as two different types of data were collected. The first type of data collected was subjective and in the form of a survey that was based on the Physical Activity Group Exercise Questionnaire (PAGEQ). Attempts were made to contact developers of the PAGEQ to use this survey tool for this study without success. A modified version of the PAGEQ survey along with an introductory letter was sent to Train 2 Run program participants, including veterans and participating spouses. The VA employees who participated by helping to facilitate this program were able to pick up the survey tool at the front desk of the Joplin CBOC. The survey was completed anonymously. The second type of data collected was the pre and post program lab and vital sign values (HgbA1c, LDL, weight, blood pressure) from the veteran participants who are patients of the Joplin VA clinic. This data was collected and analyzed without identification of the participant.

Physical Activity Group Exercise Questionnaire (PAGEQ)

The Physical Activity Group Exercise Questionnaire (PAGEQ) was developed to assess the level of cohesion between participants in a group exercise environment by Estabrooks and Carron in 2000. It was further validated in a study that measured group cohesion in an exercise group composed of predominately older men who were military veterans. "Individuals reporting high group cohesion are less likely to discontinue participation in group exercise programs" (Daniels, et. al., p. 18, 2016). One of the fundamental assumptions of the PAGEQ is the bonding that develops within the group will help satisfy personal needs and objectives (Estabrooks & Carron, p. 230, 2000). It is reasonable to theorize that if there is a high level of cohesion then there will be a high level of satisfaction with the program, as it will be meeting personal needs and objectives of the participants.

The PAGEQ uses a 9-point Likert scale and asks 21 questions to assess participant views of the group exercise program. The results of the study performed by Daniels, et. al., in 2016 were described using measures of central tendency, such as means, medians, frequencies, and ranges as appropriate. This study found that there was not a significant difference between total or subtotal scores and age, health status, or gender. "There was a trend for the overall and task cohesion sores to be higher among respondents with longer duration of participation" (Daniels, et. al., p. 21, 2016). This study indicated high scores with this tool, suggesting high levels of perceived cohesion among participants. One of the attributable factors stated was that patients were veterans; they had prior experience with developing teamwork and cohesion with groups and share

the philosophy of "no one gets left behind". Per Daniels, et. al, this fact makes veterans more likely to support one another.

This study has modified the PAGEQ to make questions more pertinent to the program that is to be evaluated. The Likert scale has been modified from a 9-point scale to a 5-point scale. Three open ended questions have been added to the questionnaire to further assess participant satisfaction with the program. All demographic data has been removed from the modified version of the survey tool (Appendix A).

Privacy and Confidentiality

To protect the privacy and confidentiality of data collected from all participants, the survey data will be collected anonymously. When data is collected from the electronic medical record of veteran participants, it was de-identified (Appendix B) by randomly assigning a participant number to the data obtained from the medical record. The survey data and the objective data were not linked. The data was collected and analyzed separately. Data was stored in an Excel file on the VHSO S: drive for research and will be accessed with a government issued computer with PIV-only access. If a breach of confidentiality should arise, the principal investigator will report this breach to the VHSO privacy officer, Kathryn Fraine. No identifiable data was released to outside parties. The principal investigator will be the only person to access PHI and it was not disclosed to outside parties. PHI will be used to identify participants' mailing address, lab values, and vital signs.

Procedure

IRB approval was sought will from the Veteran's Administration and Pittsburg State University under exemption status, utilizing exemption categories EX 2 and EX 4, as two different types of data were collected.

The first type of data collected was subjective and in the form of a survey that was a modified version of the PAGEQ. This survey was sent to Train 2 Run program participants, including veterans, participating spouses, and the VA employees who participated by helping to facilitate this program who were able to pick up the survey tool at the front desk of the Joplin CBOC. The survey was be completed anonymously. Questions were added to the PAGEQ to assess the participant's satisfaction with the program and for any recommendations he/she may have for future offerings of the program. The second type of data collected was the pre and post program lab and vital sign values (HgbA1c, LDL, weight, blood pressure) from the veteran participants who were patients of the Joplin VA clinic. This data was collected and analyzed without identification of the participant (Appendix B).

Veterans and participating spouses were sent a letter to request a survey to be completed and returned to the Joplin VA Clinic front desk. The letter and survey were mailed to the participant at their home. Staff who participated with facilitation of the program were able to pick up the survey tool at the front desk of the Joplin CBOC and returned completed surveys to the front desk of the Joplin CBOC after completion. A follow up phone call was made four days after mailing the surveys by the researcher to assure verbal consent for participation in the survey and to answer any questions that the intended participant may have had. Once returned, these surveys were placed in a specific

envelope by the receiving front desk staff, placed in a locked bag, and were delivered to the researcher after a total of 8 surveys had been collected, as 8 eligible participants received the survey. Once the surveys were received, the data was analyzed. All data obtained was stored on the S: drive for VHSO research and was accessed via a government issued computer with PIV-only access. Surveys did not ask for identifying information, and surveys received did not contain any identifying data. Hard copy data (i.e., completed surveys) is stored in a locked filing cabinet located in the North pod of the Joplin CBOC, Team 4.

The electronic medical records for veteran participants were accessed by the primary investigator to pull pre and post program participation data for the objective portion of data analysis for this project. The electronic medical record of each participant was evaluated to document HgbA1c results and LDL cholesterol results, as well as blood pressure and weight measurements pre and post program. The data for this program evaluation was collected directly from CPRS by the primary investigator (PI) and entered directly into an electronic spreadsheet that did not include any patient identifying information. This process rendered the data de-identified. The program began May 2, 2022, and clinical data measurements from January 1, 2022, through May 1, 2022, were used for the pre-program measurements for this project. The program ended October 5, 2022, and clinical data measurements for post-program measurements were collected between October 1, 2022, and December 15, 2022. The data was recorded in an Excel spreadsheet and did not have any personal identifiers associated with the values. The spreadsheet will be maintained on a government issued computer that is VA firewall protected.

Treatment of Data/Outcomes

The outcome data provided information regarding participant satisfaction with the Train 2 Run program and objective data to measure any benefit with decreasing HgbA1c values, LDL values, blood pressure, or weight. The data collected was used to assess the value of the Train 2 Run program that was started at the Joplin VA. If the program is found to be beneficial, it can be replicated in other outpatient VA clinics.

All participants, including patients, participating spouses of patients, and facilitating staff in the Train 2 Run program were asked to complete the survey tool. These surveys were placed in a specific envelope in a locked bag and were delivered to the researcher after all surveys had been returned. No identifying data was included on the completed surveys. Once the surveys were received, the data was recorded into an Excel spreadsheet titled "Subjective Data" on the VHSO S: drive that was accessible on a government issued computer with PIV-access only. Once all data from the PAGEQ was recorded into the Excel spreadsheet, it was analyzed using descriptive statistics such as measures of central tendency, specifically, the mean was calculated for each of the 19 questions on the survey tool based on the PAGEQ.

For the objective portion of this study, only the participants who were patients of the Joplin CBOC were included. The data obtained was placed into an Excel spreadsheet titled "Objective Data" on the the VHSO S: drive for research on a government issued computer with PIV-only access. The data was analyzed using descriptive statistics such as measures of central tendency. The mean was calculated for each of the four items evaluated (HgbA1c, LDL cholesterol, blood pressure, and weight measurement). Comparison of means was also accomplished through a paired samples t-test. The

analysis of data and results of the evaluation will be distributed to key stakeholders at the VA for consideration of continuance of this program at not only the Joplin CBOC but other VA outpatient clinics who are also associated with the Veterans Healthcare System of the Ozarks (VHSO) based in Fayetteville, Arkansas. All records were stored in accordance with RCS 10-1.

Plan for Sustainability

For the Train 2 Run program to become a sustainable, viable program within the VHSO system, it must be proven to provide benefit for the veterans served. This program is projected to grow as awareness of its existence increases among the patient population and with provider education regarding the availability of the benefits of this program. To ensure the program will endure, funds will need to be allocated for program expenses, such as allowing staff to leave their workstations one hour early twice a week to work with the participants. Signage in the clinics will need to be purchased and displayed to advertise the program and encourage patients to discuss participation in the program with their primary care provider. A goal of this program was a VA 5K Fun Run, where participants were encouraged to walk, run, or roll five kilometers, or 3.1 miles. There will need to be funds allocated to provide this event in future years as the local event was attended by not only Train 2 Run participants, but also community members.

Provider education will need to be implemented prior to the launch of the next program session, as provider referral to the program is essential. There will need to be educational offerings provided utilizing different methods, such as in person events and online/virtual events. Providing study results to the primary care providers could be beneficial to assist with program referrals.

Summary

The Train 2 Run program was evaluated both subjectively as well as objectively. The data obtained from the modified PAGEQ survey tool and patient electronic medical records were used to evaluate the value of this program and can be used to replicate this program at other locations within the VA. This program could serve to assist many veterans to work towards achievement of their health care goals and increase their health status overall.

Chapter IV

Evaluation of Results

Restatement of Purpose

The purpose of this scholarly project was to assess health benefits veterans realized from a group train to run program that ended with the completion a 5K race (3.1 miles) five months after the start of the program. This group grew to include not only veteran participants, but also the family members of the participating veterans and the VA employees who participated to help facilitate this program. The program will be evaluated by objective data as well as a subjective survey that each participant was asked to complete.

Analysis of Data

Data that was collected for this project was both objective and subjective and it was collected for this project by evaluating the electronic medical record of the veteran participants and by participant survey of perceptions of the program for all participants, whether veteran or non-veteran. The electronic medical record of the veteran participants was evaluated for HgbA1c values, LDL values, blood pressure measurement, and weight measurement prior to starting the Train 2 Run program and upon completion of the Train 2 Run program. There was no personally identifying information collected, only anonymous voluntarily submitted surveys, without attached identification.

The subjective data collected was in the form of a survey that was based on the Physical Activity Group Exercise Questionnaire (PAGEQ) (see Appendix A). This survey was sent to Train 2 Run program participants, including veterans, participating spouses, and the VA employees who participated by helping to facilitate this program who picked up the survey tool at the front desk of the Joplin CBOC. All subjects surveyed had participated in the program for a minimum of 6 weeks. The survey was completed anonymously. Questions were added to the PAGEQ template to assess the participant's satisfaction with the program and for any recommendations he/she may have for future offerings of the program. The second type of data that was collected was the pre and post program lab and vital sign values (HgbA1c, LDL, weight, blood pressure) from the veteran participants who are patients of the Joplin VA clinic. This data was collected and analyzed without identification of the participant (Appendix B). The surveys were mailed to participants on March 23, 2023. All surveys had been returned by March 27, 2023.

Description of Sample

The population that was studied for the subjective portion of this project was the participants in the Train 2 Run program at the Joplin CBOC. The purposive sampling method was used. "With this type of sampling, the researcher specifies the characteristics the population of interest and then locates individuals who match those characteristics" (Terry, 2018, p. 120). This project focused on the participants in the Train 2 Run program. This sample included not only patients of the Joplin CBOC, but also patient spouses who participated in the program as well as the staff who helped facilitate and run the program. The population that was studied for the objective portion was veterans over

the age of 18 who are patients of the Joplin CBOC who were enrolled in the Train 2 Run program. To be enrolled in the Train 2 Run program, the veterans had to have a medical release from their primary care provider stating they had no contraindication to this activity. The participants had to attend at least six weeks of training to be included in this project. Train 2 Run clinic attendance rosters from the Vista scheduling system were pulled to identify veterans who attended six weeks of the program to be included in this project. Four veterans were identified as meeting the minimal 6-week attendance criteria. Two of the four veterans who participated were accompanied routinely by their spouses. The total number of participants who were surveyed was eight. Four of these were participating veterans, two were spouses of veterans, and two were staff members who helped facilitate this program.

Clinical Data

Clinical data was analyzed with descriptive statistics including mean, median, mode, standard deviation, and range. The following table presents pre-program participation data and post program participation data.

Table 1

Clinical Data Pre- and Post-Program

Descriptive Statistics

	N	Range	Minimum	Maximum	Mean	Std. Deviation
Pre Systolic	4	57	104	161	131.00	25.469
Post Systolic	4	46	99	145	126.50	19.638
PreDiastolic	4	18	62	80	73.50	8.266
Post Diastolic	4	21	69	90	78.00	9.487
Pre LDL	4	45	51	96	67.75	19.602
Post LDL	4	45	52	97	74.75	20.823
Pre HgbA1c	4	1.10%	5.20%	6.30%	5.7500%	0.49329%
Post HgbA1c	4	1.50%	5.20%	6.70%	5.9000%	0.71647%
Pre Weight	4	180.0	144.5	324.5	216.475	80.3202
Post Weight	4	181.0	138.0	319.0	210.900	82.1389
Valid N (listwise)	4					

Table 2

Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	Pre Systolic - Post Systolic	4.500	27.331	13.666	-38.990	47.990	.329	3	.764
Pair 2	PreDiastolic - Post Diastolic	-4.500	12.179	6.090	-23.880	14.880	-.739	3	.513
Pair 3	Pre LDL - Post LDL	-7.000	10.708	5.354	-24.039	10.039	-1.307	3	.282
Pair 4	Pre HgbA1c - Post HgbA1c	-0.15000%	0.23805%	0.11902%	-0.52879%	0.22879%	-1.260	3	.297
Pair 5	Pre Weight - Post Weight	5.5750	4.7381	2.3690	-1.9643	13.1143	2.353	3	.100

The LDL values pre and post program showed minimal change, as did HgbA1c values, pre and post blood pressure. There was no statistically significant change in these values over the course of the program. Weight loss after the program ($M = 5.575$, $SD = 4.7381$), was not significant, $t(5) = 2.353$, $p = 0.10$, which is slightly higher than the alpha value ($p < .05$). However, it should be noted that there may be some effect on weight loss related to the program due to the low p value.

Group Cohesion

Survey data for items pertaining to group cohesion were analyzed using descriptive statistics that include mean, median, mode, standard deviation, and range. Responses were measured utilizing the calculated means for each of these survey questions. Participants were asked to rate their level of agreement with each question that was asked on the survey on a Likert scale, with a rating of 1 meaning strongly disagree to a level of 5 meaning strongly agree. The various questions had means that were as high as 5 and as low as 3.88.

Participants indicated that they enjoyed the exercise done in the group, with the survey question showing a mean of 5 after data analysis. They also indicated they liked spending time with the other people involved in the group, as this also scored a mean of 5. Socialization within the group before and after activity sessions was also scored with a mean of 5, even though the question asking if members of the group sometimes socialized outside of activity time scored a mean of 3.88. A high level of cohesion was indicated with the question that asked the level of agreement with the statement that members encourage one another to get the most out of the program, with this question scoring a mean of 4.88. Participants indicated that the social interactions they have in

this group were important to them on the survey as that question scored a mean of 4.75. Also scoring a mean of 4.75 was the question asking the participant if they believed other participants were satisfied with the amount of activity they got in this program. Participants indicated they enjoyed the exercises done in the group (mean 5) and they felt the members of the group encouraged one another to get the most out of the program.

Level of Satisfaction

Survey items assessing the participants level of satisfaction were analyzed with descriptive statistics using mean, media, mode, standard deviation, and range. The mean that was calculated for each survey question that pertained to level of satisfaction was used to determine participant level of satisfaction. Once again, a Likert scale was used to measure response, with a level of 1 meaning strongly disagree and a level of 5 meaning strongly agree. Overall, a high level of satisfaction was noted with data analysis of the means of the survey questions pertaining to level of satisfaction.

Participants indicated they were satisfied with the amount of activity they got in the program as this question on the survey was found to have a mean of 5. The level of satisfaction with the level of intensity of the exercise that the participant obtained from the program was noted to have a mean of 4.88. The group was found to be important in the lives of participants when compared to other activities with a mean score of 4.75. Participants indicated their overall fitness was better after participating in this group with mean score of 5 for this survey question.

Participant Comments

Only 5 of the 8 surveys returned had the open-ended questions answered. When asked what they liked best about the Train 2 Run program, comments such as "commitment", "enjoyable", "fun", and "dedication" were noted. One participant responded that the "comradery of the group" was what they liked best about the program. Another participant stated, "The consistency of training, having a set time, makes me get up and do it." One participant indicated what they liked best about the Train 2 Run program is that it "Complimented my walking routine". The participants who filled out the open-ended questions all indicated there was nothing they would change about the Train 2 Run program. One additional comment that was noted on one survey was "your alive, you didn't die". Note: the facilitator used this phrase as motivation to participants throughout the five months.

Additional Data Analysis

Participant perception of overall health was an additional concept that was analyzed for this project. A 5-point Likert scale (5 meaning "excellent" and 1 meaning "poor") was used to allow participants to rate their perception of overall health before the program and after the program. The ratings were made at the same time, post-participation as part of the program evaluation. The overall change in perception of overall health ($M = -0.875$, $SD = 0.991$) was significant, $t(8) = -2.497$, $p = 0.041$, which is less than the alpha value ($p<.05$). Participant perception of their overall health prior to the program ($M = 3.99$, $SD = 1.125$) was lower than their perception of overall health after the program ($M = 4.75$, $SD = 0.463$).

Table 3

General Health Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference Lower	Upper			
Pair 1	How would you rate your general health status before participating in this program? - How would you rate your general health status after participating in this program?	-.875	.991	.350	-1.704	-.046	-2.497	7	.041

As demonstrated by the above table, perception of improvement of overall health was found to be a statistically significant finding for this project (p=0.05).

Summary

Although the number of participants who completed 6 weeks or more of the Joplin VA Train 2 Run program was small (n=4), the scores for group cohesion and satisfaction were high, indicating participants found the program to be of value to them. The additional data analysis provided a significant finding of improved participant perception of their overall health after program participation. Weight change was noted to be significant when analyzing clinical data. Minimal change was noted in the pre-program participation data and the post-program participation data that was analyzed from the medical records of the four veteran patients who participated in the program. This may be due to the small sample size (n=4) of veteran patient participants. No significance was noted in change in blood pressure readings from before program

participation to after program participation. The pre and post LDL readings were also not found to be statistically significant. Paired samples correlations testing shows a significance level of 0.001 for pre and post weights of participants.

Another finding was pre HgbA1c and post HgbA1c values. The HgbA1c values did not show that the program helped lower the HgbA1c of participants (significance level 0.10). The findings showed a modest elevation in HgbA1c post program participation. Further exploration of these findings will be discussed in the following chapter.

Chapter V

Discussion

Relationship of Outcomes

The goal of this project was to evaluate the Train 2 Run program that was piloted at the Joplin VA Community Based Outpatient Clinic (CBOC). The program ran from May 2, 2022, through October 1, 2022. The program ended with group members participating in a 5K Fun Run. The goal of the fun run was not to place, but to finish. Group members were not able to walk/run/roll the 5K distance (3.1) miles prior to participating in the Train 2 Run program. At the completion of the program, all group members successfully completed the 5K fun run.

Clinical Data

There was minimal change noted in pre-program clinical data and post-program clinical data. With a small sample size (n=4), results are easily skewed. The program was only 5 months in length which gave minimal time for the exercise/lifestyle changes to translate in to improved clinical data. A dietary component was not included in the program to encourage healthy eating in addition to the healthy group exercise/activity. But even though there was an elevation in HgbA1c levels, all readings remained within acceptable limits to evidence good glucose control. A weight loss was noted, showing the program had a positive impact on weight loss for the participants.

Group Cohesion

Those who have served in the United States Armed Forces share a type of comradery or cohesion (Daniels, et. al., 2016). Spouses of veterans also share a similar type of comradery. A high level of group cohesion was observed with the analysis of survey data. Survey data indicated participants felt like the Train 2 Run program members encouraged one another to get the most out of the program. Participants enjoyed spending time with one another during the exercise sessions and found overall enjoyment in the exercise sessions. They indicated they enjoyed socializing with other participants before and after exercise sessions, indicating they valued the interactions with other members of the group, even though socializing outside of the exercise group sessions was rated lower overall. This is congruent with the findings of earlier studies of group exercise programs for veterans. These results are consistent with the study performed by Fraser and Spinks (2001) where results found that those with high attendance rates (>77%) identified the factor of reliable alliance as an important factor. The data analysis for this project emphasized the importance of group cohesion among veterans and the spouses of veterans. Development of more group exercise programs for veterans would be beneficial for not only the veteran, but also their family members, making exercise a family activity.

Level of satisfaction

As shown by the study performed by Hall, et al (2019) a progressive, multicomponent exercise program was found to increase participant's health status, despite their comorbidities. Participants indicated they were satisfied with the level of exercise and type of exercise the program offered. They indicated they felt they had a

better overall health status post participation. Making exercise a satisfying experience is an important component of a successful program to help overall health status, for both the physical and mental health of the group members. The data supported that participants were highly satisfied and would do the program again. To date, all four of the veteran participants have enrolled in the second session of this program that will take place from April 10, 2023, to October 1, 2023.

Participant Comments

The answers to the open-ended questions on the survey indicate the group members felt a level of comradery that was enjoyable. Participants liked the commitment they had to the program and felt like others were also committed to the program. One participant indicated that the consistency of the training made him/her get up and do the exercise. Comments echo what the data indicated that group cohesion was an important factor in the success of the group. No suggestions for changes to the program were noted.

Additional findings

The additional finding of perception of overall health was a somewhat unexpected finding. Group members had a lower perception of overall health before the start of the program than when the program ended. This finding shows that while the clinical data did not show a marked improvement in LDL values, blood pressure, and HgbA1c values, the participants felt their health status had improved. People will continue an activity if they perceive they are getting benefit from the activity. Continued activity/exercise will have additional benefits to the health status of individuals who continue to be active. Addison, et al (2019) showed significant improvements were found for all performance mobility measures from baseline to 3 months in the Gerofit program for veterans aged 65

and older. "Perceived benefits of action are the anticipated positive outcomes that will occur from health behavior." (Nursing Theory, Nola Pender, 2016, para.6). Having a perception of improved health will encourage participation in group exercise activities, which will lead to improved mobility for the older veterans.

Observations

Participants in the Train 2 Run program enjoyed the program and found it beneficial to their overall health status. The VA 5K Fun Run received national attention in the VA system. Interest has been expressed by VA clinics in New Mexico, California, Maine, and Missouri, in starting a Train 2 Run program at those locations. The Veterans Healthcare System of the Ozarks (VHSO) has approved the second season of the Train 2 Run program for the Joplin CBOC to start in April of 2023. This program has great potential to grow and reach many veterans to help improve the overall health status of program participants. To reach more participants, changing the name to Train 2 Walk, Run, or Roll may be of benefit to increase participation. Many believe that they cannot run or simply do not want to run. If the name implies that they do not necessarily have to run, but may walk or use a wheelchair, it may increase group exercise participation.

Evaluation of Theoretical Framework

The nursing theory selected for the Train 2 Run program was the Health Promotion Model by Nola Pender. This theory encourages patients to make healthy lifestyle choices (Petiprin 2023). These study results support the theory. This study shows that the participants sought to actively regulate their own behavior by participating in the group exercise program, which is a component of this theory. Also congruent with the Health Promotion model is this study showed the participants valued growth and strove

to find a balance between stability and change. Nurses and other health professionals helped not only to encourage participation in the program, but two staff members helped to facilitate the programs and assist the participations in the actual exercise sessions.

Evaluation of Logic Model

The logic model for this study described the purpose, context, inputs, activities, outputs, and outcomes of the evaluation of the Train 2 Run program. The purpose was to evaluate the effectiveness of the program. The model allowed for participants to include not only veteran patients but also supporting family members and staff. The model theorized improvement in lab values, blood pressures, and weight as well as a satisfactory response to the program. While no lab values or blood pressure changes were found to be statistically significant, patients reported a high level of satisfaction with the program.

Limitations

One limitation to this study was the small sample size. Of the 13 veteran patients that were originally enrolled in the program, only four participated for six weeks or more. Many participants decided against program participation for various reasons, such as interference with work schedule, joint pain, and travel distance to the training site. The program was initially designed to span over the course of six months, but due to unforeseen barriers to gaining VHSO approval to start the program, it only lasted five months, thus placing a shorter time span to measure starting labs to post program labs. The shortened time span, and the small number of participants are two primary limitations to the study.

Demographic data was not obtained on the modified PAGEQ survey tool that was sent to the participants, which may be seen as a limitation. The tool could be modified to

ask respondent's age, sex, and whether they were a patient, family member, or staff member to further delineate the level of satisfaction of VA patients vs family members vs staff. Due to the small number of total participants, collection of demographics for this study may not have been beneficial.

Another limitation to this study was the failure to answer the open-ended questions by all participants. Of the eight surveys that were returned, three did not include responses to the open-ended questions. Suggestions for program improvement and knowing what group members enjoyed most about the program could help improve the program for future participants.

Implications for Future Projects and/or Research

This project reveals several areas for potential research in the future. It would be of benefit to evaluate how lengthening the program to run over six to nine months improves clinical data. It would also be of benefit to perform the study again with a larger sample size, and even at a larger facility to see if results can be duplicated. A future study to assess how the Train 2 Run program helps improve the mental health of participants would also be of benefit.

Implications for Practice

This program has the potential to improve the health of veterans not only in Joplin, MO, but across the nation. If the program spreads to multiple locations, it may become a tool to help veterans achieve a higher state of physical and mental health. The survey results indicated those who participated in the Train 2 Run group exercise program were very satisfied with the program and felt a high level of group cohesion. These participants will tell others and that will result in more participation. Providers

need education to make referrals to the program for appropriate patients who would benefit from the group exercise program.

Conclusion

Obesity is not just a disease unique to one certain population; it is widespread and affects people from all different backgrounds. Veterans are one population that is affected by the obesity epidemic. It is estimated that 70% of veterans are obese or overweight (Littman et al., 2012). Obesity affects many aspects of overall health, both physically and mentally. Veterans who utilize the Joplin CBOC needed a group exercise class to help promote healthy lifestyle choices and exercise. The T2R program was developed for this purpose. Veterans are more likely to participate in a group exercise program that is designed for veterans. "Individuals reporting high group cohesion are less likely to discontinue participation in group exercise programs" (Daniels et al., 2016, p.18.).

This study has shown that participants in the Train 2 Run program at the Joplin CBOC had a high level of group cohesion and a high level of satisfaction with the program. As this program grows, the clinical data will be more significant. This program is effective as it is an activity that participants enjoyed and felt they achieved a higher state of overall health.

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APPENDIX

Appendix A

Survey Tool for Train 2 Run Program Evaluation

Train 2 Run Program Evaluation

Please rate each of the following statements on the following scale.

1= Strongly disagree 2= Disagree 3=Neither disagree or agree 4=Agree
5=Strongly agree

Items:	1	2	3	4	5
I am satisfied with the amount of activity I get in this program.	1	2	3	4	5
I believe the other participants are satisfied with the amount of activity they get in this program.	1	2	3	4	5
This group motivates me to improve my overall fitness.	1	2	3	4	5
I am satisfied with the level of intensity of the exercise I get with this program.	1	2	3	4	5
I enjoy the exercises done in this group.	1	2	3	4	5
My overall fitness is better after participating in this group.	1	2	3	4	5
I enjoy the social support I receive in this group.	1	2	3	4	5
I like spending time with the other people involved with this group.	1	2	3	4	5
Since this program ended, I have missed the social support from the other participants.	1	2	3	4	5
Compared to other social activities in my life, this group is important.	1	2	3	4	5
The social interactions I have in this group are important to me.	1	2	3	4	5
Our group is united in its beliefs about the benefits of the physical activities offered in this program.	1	2	3	4	5
Members of the group encourage one another to get the most out of the program.	1	2	3	4	5
Members of the group often socialize during exercise time.	1	2	3	4	5
Members of the group sometimes socialize outside of activity time.	1	2	3	4	5
Members of the group spend time socializing with each other before and after activity sessions.	1	2	3	4	5
How would you rate your general health status before participating in this program?	1	2	3	4	5
How would you rate your general health status after participating in this program?	1	2	3	4	5
I would participate in this program again if it is offered.	1	2	3	4	5

What did you like best about the Train 2 Run program?

What would you change about the Train 2 Run program?

Additional comments:

Appendix B

Train 2 Run Objective Data Collection

Participant Number	Pre B/P	Post B/P	Pre LDL	Post LDL	Pre A1C	Post A1C	Pre Weight	Post Weight
Participant 1								
Participant 2								
Participant 3								
Participant4								

Appendix C

Participant Letter

February 1, 2023

Dear Train 2 Run Program Participant:

We are conducting a study to assess the effectiveness of the Train 2 Run Program that you participated in through the Joplin VA Community Based Outpatient Clinic (CBOC) from May 2022 through October 2022. Enclosed is a survey to assess your satisfaction with the program. This survey is completely voluntary. By completing and returning the survey, you are giving your consent to participate in this study. We would like for you to return the survey within one week of receiving it. You may mail it back to the Joplin CBOC at 3015 S. Connecticut, Joplin, MO, 64804, or you may drop it off at the front window on the first floor of the Joplin CBOC.

I truly appreciate your participation in this program, and I hope you will complete the survey. If you have any questions or concerns, please feel free to contact me at (417)621-6600 and please ask for Team 4.

Sincerely,

Jenifer Webb, MSN, RN, FNP-C

Principal Investigator

Train 2 Run Program Evaluation Study

Appendix D

Follow up Phone Call Script

Hello, this is Jenifer Webb from the Joplin VA clinic, and I am calling to follow up the letter you received recently regarding a survey for the Train 2 Run program. Do you have any questions or concerns regarding this letter/survey? Please note that by completing the survey, you are consenting to participate in this study.