

Master of Public Health
Integrative Learning Experience Report

***Multi-Project Report: Physical Activity and Nutrition Promotion in
Riley County, Kansas***

by

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submitted in partial fulfillment of the requirements for the degree

MASTER OF PUBLIC HEALTH

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Abstract

Project 1: College of Veterinary Medicine Counseling Services

Veterinary medical school requires immense levels of dedication to academic performance and clinical expertise. Students encounter numerous stressors including perceived lack of time for recreational and social activities, chronic sleep deprivation, constant evaluation, academic concerns, and poorly perceived physical health. As such, veterinary students are confronted with a variety of mental health concerns including increased risk of depression, anxiety, and substance abuse. As suicide among practicing veterinary professionals continues to rise, Counseling Services at Kansas State University's (K-State) College of Veterinary Medicine (CVM) has identified a need to address mental health within the profession. With the assistance of numerous stakeholders, including myself, CVM Counseling Services developed a health promotion program coined "Well Vets Well Pets." The Well Vets Well Pets incentive program intended to use physical activity to promote improvements in mental health, alongside mental health awareness and mindfulness practices. The program faced adversity in light of the COVID-19 pandemic, but nonetheless was launched virtually on CVM social media platforms in the Fall of 2020. Program planning and implementation will be discussed in regard to preliminary data interpretation.

Project 2: K-State Research and Extension of Riley County

Individuals experiencing food insecurity are at greater risk for negative health outcomes compared to individuals who are not experiencing food insecurity, due to changes in food intake and decreases in dietary variety. Adults experiencing food insecurity are more likely to develop chronic diseases such as heart disease, cancer, diabetes, and obesity as well as engage in negative health behaviors such as smoking. Due to COVID-19, Feeding America projects that the 2020 food insecurity rate in Riley County will increase from 12.9% to 15.8%. There are many organizations in Riley County devoted to decreasing food insecurity. However, K-State Research and Extension found that community members in need of food are often lacking the necessary equipment to safely prepare it. Therefore, K-State Research and Extension partnered with the Food and Farm Council of Riley County and Manhattan, Kansas to develop the Kitchen Restore program. Kitchen Restore aims to provide low-income community members with kitchen essentials as well as the skillset to use them. While I participated in a number of projects for K-

State Research and Extension, the majority of my efforts were focused on Kitchen Restore. The program's nutrition education and promotion efforts are discussed herein.

Subject Keywords: veterinary medical school, mental health, physical activity, nutrition, food insecurity

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Chapter 1- College of Veterinary Medicine Counseling Services

Literature Review

Veterinary medical school requires immense levels of dedication to academic performance and clinical expertise. Several studies indicate that veterinary students perceive their education as highly stressful, reporting pressure not only to achieve academically but to avoid failure (Skipper et al., 2012). Students encounter numerous stressors including perceived lack of time for recreational and social activities, chronic sleep deprivation, constant evaluation, academic concerns, and perceived poor physical health (Collins & Foote, 2005; Hafen et al., 2006; Drake et al., 2012). Such high training demands are associated with fatigue, overwork, burnout, and stress (Chigerwe et al., 2019; Hafen et al., 2006). Similarly, research indicates that veterinary students are at greater risk for developing anxiety, depression, and substance abuse (Diulio et al., 2015; Drake et al., 2012; Sutton, 2007). Drake et al. (2012) discovered that K-State veterinary students maintain elevated anxiety scores throughout the entirety of their academic careers (Drake et al., 2012). Hafen and colleagues (2006) found that one-third of K-State veterinary students experience moderate to severe depressive symptoms, levels indicative of clinical depression (Hafen et al., 2006). Diulio and colleagues (2015) showed that there was a relationship between depressive symptoms and harmful alcohol use patterns among veterinary students, as alcohol was used to cope with negative emotions (Diulio et al., 2015).

Mental health concerns plague the veterinary profession as a whole. Hatch and colleagues (2011) surveyed nearly 2000 veterinarians and found that anxiety, depression, and burnout continued to increase after graduation (Hatch et al., 2011). When surveyed, 20% of veterinarians in the United Kingdom reported symptoms indicative of clinical depression (Bartram et al., 2009). Depression is a well-established risk factor for suicide, suicide rates have been climbing in the profession for several decades (Nett et al., 2015). A similar survey-based study by Nett and colleagues (2015) found that one in 11 veterinarians in the United States experienced severe psychological stress, and one in six experienced suicidal ideations (Nett et al., 2015). A recent study funded by the Centers for Disease Control and Prevention (CDC), analyzed data from 1979 through 2015 and found that veterinarians in the United States were three to five times more likely to die by suicide than the general population (Tomasi et al., 2019).

Less is known about the suicide risk for veterinary students. However, increased risk is speculated within the current literature. For instance, a study conducted by Witte et al. (2012)

found that repeated exposure to performing, assisting with, and observing euthanasia resulted in emotion desensitization which was associated with increased fearlessness of one's own death. This relationship was especially strong with companion animal (i.e., cats and dogs) euthanasia (Witte et al., 2012).

Veterinary students receive inadequate self-care training (Butler et al., 2004). Current mental health education in veterinary medical school focuses on identifying and caring for the mental health needs of clients (Butler et al., 2004; Hafen et al., 2006). While a substantial number of veterinary medical schools in the United States and abroad provide in-house counseling services, significant barriers to treatment exist (Drake et al., 2017; Kogan et al., 2012). Many students do not feel as though they have time to spare for therapy for fear of falling behind in their coursework (Drake et al., 2017; Kogan et al., 2012). Others fear stigmatization (Drake et al., 2017). They are worried about being viewed as unable to cope as compared to their peers (Pickles et al., 2012).

Drake and colleagues (2017) found that physical health was associated with student well-being and distress. Students who were experiencing significant psychological distress perceived themselves to be in poor physical health, while students who were not nearly as distressed perceived themselves to be in good physical health (Drake et al., 2017). The mental health benefits associated with physical activity are well documented within the research literature. Physical activity has been shown to boost mood as well as provide a buffer for the deleterious effects of stress (Nguyen-Mitchell et al., 2006). According to a systematic review performed by Mammen and Faulkner (2013), physical activity should be seen as an important population level approach to promoting mental and physical health. Evidence reviewed from thirty prospective longitudinal studies found that any level of physical activity, including low levels of physical activity, can reduce symptoms of depression, and prevent the development of depression (Mammen & Faulkner, 2013). Lastly, a systematic review performed by Bize and colleagues (2007) found consistently higher health-related quality of life scores, including improved mental health functioning for subjects who met the recommended levels of physical activity compared to subjects who were inactive (Bize et al., 2007).

Agency Description

Counseling Services at the CVM is separate from that of the university wide Counseling Services offered by K-State. My preceptor, Dr. McArthur Hafen Jr., and his colleague, Dr.

Adryanna Drake, are licensed marriage and family therapists who specialize in the care of CVM students, faculty, and staff. They are located on-site in Trotter Hall 001 and consult with individuals, couples, and families connected to the CVM. CVM Counseling Services was brought in-house in 2004 to better facilitate care. Students are able to attend at the times that are most convenient to them such as before, after, or in-between classes (Drake et al., 2017). Services are also offered at little to no cost (Drake et al., 2017). Lastly, and possibly most importantly, students can consult with counselors who are knowledgeable about the rigors of veterinary medical training (Drake et al., 2017).

In addition to providing counseling services, Drs. Hafen and Drake have been investigating the mental health concerns associated with veterinary medical school for over a decade. Dr. Hafen earned his PhD in Marriage and Family Therapy from Brigham Young University and Dr. Drake earned her PhD in Family Studies and Human Services from K-State (CVM, 2021). Their primary areas of research include veterinary student well-being, effectiveness of communication skills training, and companion animal loss and grief (CVM, 2021). Together, they provide class presentations and seminars addressing communication, career risk awareness, grief and loss, empathy, and self-care among others (CVM, 2021). Kayla Campbell, the Student Wellness Coordinator, is the primary contact for CVM Counseling Services, and manages the testing center and coordinates all wellness events (CVM, 2021).

Learning Objectives and Expectations

- Use theories and models to develop a physical activity intervention program for a population in need
- Implement the physical activity intervention program, making adaptations when necessary
- Communicate effectively with stakeholders and partners
- Engage stakeholders, partners, and the target population in the development and implementation process
- Adequately evaluate the program for improved future implementation

Project Description

Planning Phase

I first met with Dr. Hafen and Dr. Drake of CVM Counseling Services in March 2020. At our initial meeting, we discussed the demanding schedule of Doctor of Veterinary Medicine

(DVM) students. Students maintain a rigorous 8:00 am- 5:00 pm schedule including lectures in the morning followed by a one-hour lunch period at noon. Lab usually occurs in the afternoon, but there is also potential for Saturday lab hours. Students typically have several hours of studying to complete in the evenings and on weekend days. Students are tested at least two days per week, one of which is commonly Friday. Students must receive a passing grade of a “B” in each course or will be set back approximately one year of study due to the sequential order in which classes are offered.

During the planning phase, we also discussed the personalities and skillsets of the DVM student population. The students were described as competitive and perfectionistic. It was also noted that most students have pets and were willing to go without certain needs, such as food, in order to care for their pets. This was also acknowledged by Dr. Annelise Nguyen, PhD in MPH/DMP 802. Both Dr. Hafen and Dr. Drake have found that students entering the DVM program often struggle with time management skills. Their transition from undergraduate programs in which they excelled, often with ease, was not the same experience when entering the DVM program. Prior research conducted by Hafen et al. (2006) found that one-third of first-year DVM students at K-State experience symptoms of depression and anxiety. Although this cohort was academically gifted, feelings of uncertainty about instructor expectations, worries about not being as smart as other students, and worries about falling behind in their studies were predictive stressors for symptoms of anxiety and depression (Hafen et al., 2006).

Next, we discussed “in-house” resources that are available for students. CVM Counseling Services began offering resources to improve physical health after Hafen and colleagues (2006) found that negative physical health perceptions were a common stressor for first-year DVM students that influenced symptoms of depression and anxiety (Hafen et al., 2006). Resources include a small weight room located in the basement of the CVM near CVM Counseling Services, a noon yoga class, locker rooms, a monthly meal prepared by professors, fruit baskets in the student lounges, and the Purple Pantry. The Purple Pantry provides snacks, feminine products, and first aid. Finally, Dr. Hafen and Dr. Drake expressed a desire to implement a well-being program to include physical activity, improved nutrition, and stress management. Ideally the program would target DVM students, as well as graduate students housed within the CVM, and faculty and staff.

In May 2020, I was tasked with developing well-being program activities to promote healthful nutrition, physical activity, and stress management. I first identified three themes to inform the activities included in the well-being program: social support, time management, and stress management. Social support was chosen to build healthy habits with support through cohort comradery. A systematic review performed by Eime and colleagues (2013) suggests that physical activity involving social engagement promotes mental as well as social health through connectedness, peer bonding, and improved self-esteem (Eime et al., 2013). Next, the duration of activities is extremely important with consideration for school, work, and family needs. Lastly, program activities for stress reduction included a focus on mindfulness, healthful nutrition, and physical activity. Physical activity was to be marketed with proximal outcomes such as stress management and revitalization, rather than distal outcomes such as health and fitness goals, because research indicates that proximal outcomes are more effective than distal outcomes when promoting physical activity (Mailey et al., 2018). For instance, Mailey et al. (2018) found that participants who engaged in physical activity because they valued the immediate affective benefits it provided reported higher levels of activity one year later (Mailey et al., 2018).

In June 2020, I presented a variety of potential activities to Dr. Hafen and Dr. Drake. The activities are listed and described in Tables 2.1, 2.2, and 2.3. All components, especially physical activity and stress management components were intended to be offered at various times throughout the week to allow as many students to participate as possible. The plan was to assess ideal times for student participation via Qualtrics survey prior to the start of the Fall semester. Dr. Hafen, Dr. Drake, and I also identified and discussed potential barriers to the physical activity, nutrition, and stress management components. Likely barriers to physical activity included limited access to locker room facilities to shower, and uncertain faculty support. Potential barriers to the nutrition components included limited access to kitchen space, cost, uncertain faculty involvement, and the “all or nothing” mindset commonly associated with nutrition. The goal of any dietary intervention should not be “perfection,” but rather making positive changes, moving toward meeting the goals of the Dietary Guidelines for Americans. Small changes to improve current nutrition may be beneficial (Hills et al., 2013). We identified fewer barriers for the stress management components because CVM Counseling Services had introduced a few of the topics previously. However, COVID-19 restrictions were the primary barrier noted for all components, as the university was operating remotely with an intention to

return to on campus activities in the Fall with undetermined accommodations. Due to concerns about COVID-19, CVM Counseling Services chose not to move forward with any of the proposed nutrition components. Physical activity and stress management components were to be modified to comply with safety precautions as those became known.

Table Error! No text of specified style in document..1 Physical Activity Components

Physical Activity Promotion	
Activity	Description
Recreational sports	Reserve rec fields for kickball, soccer, volleyball, etc. to celebrate the end of a hard-earned week. Scheduled each Friday at 5:30pm so students would not go home and partake in other unhealthy coping behaviors.
High intensity interval training workouts	Post a workout using equipment available in the CVM gym on Mondays. Students can post their times/reps by Friday night in order to compete with classmates for small prizes or bragging rights.
Weekly dog walk/jog	Establish a week night for students to bring dogs and their families for a group walk or jog.
Noon yoga	Continue existing yoga, offering during the noon lunch hour.
Destination lunch	Students can gather at noon to walk to a predetermined location to eat lunch, then walk back to campus.
Movement minutes	Institute a policy for short standing/stretching breaks during long class periods to improve focus and cognition.

Table Error! No text of specified style in document..2 Nutrition Components

Nutrition Promotion	
Component	Description
Fruit basket expansion	Add other healthful snack options to fruit baskets including granola bars low in sugar.
Purple Pantry	Continue existing Purple Pantry, offering food, first-aid, and feminine products, etc.
Team dinners	After recreational activities students gather to prepare and eat meals together. Quick recipes including low-cost ingredients with an emphasis on fruits, vegetables, fiber, and hydration. Potentially provide ingredients.

Expansion of professor prepared meals	Students shadow/assist with meal prep to build cooking skills.
Brown bag lunches	Provide simple and healthy brown bag lunches at noon during stressful times during the semester. This may detract students from choosing quick unhealthy options.
CVM cookbook	Students submit their favorite recipes to be compiled into a CVM cookbook. Each recipe will highlight healthier ingredient alternatives.

Table Error! No text of specified style in document..3 Stress Management Components

Stress Education	
Component	Description
Eustress vs. distress seminar	Teach students to differentiate between healthy and unhealthy reactions to stress.
Symptoms of stress seminar	Describe common emotional and physical symptoms of stress. Teach students how to identify symptoms in themselves.
Management techniques seminar	Physical activity- highlight proximal outcomes (“immediate return on investment”).
	Diet- plant based with emphasis on fiber and hydration to boost energy and decrease illness.
	Sleep- engage in proper sleep hygiene.
	Meditation- provide guided meditation and other mindfulness practices.

Our third meeting in July of 2020 included a discussion of a needs assessment. My proposed plan included a focus group consisting of the class officers from the previous school year. First-year cohorts would be excluded because they had not been elected, and it was unlikely that they would be able to accurately anticipate the demands of the DVM program. I chose a focus group specifically because programs historically have the best participation and longevity when the target population is more involved (Durlak & DuPre, 2008). I intended to host the focus group by the end of the month via Zoom. The contingency plan was to meet individually via Zoom or phone call for interviews with the class officers. The focus group or interviews would be devoted to the following topics:

- 1- Presenting our primary goal

- 2- Presenting some of the current physical activity ideas
- 3- Listening to physical activity ideas that the student leaders have
- 4- Listening to their perceived physical activity barriers
- 5- How to best utilize their current organizational structure to help promote the program and involve students

We also planned to include a survey within the needs assessment. The goal of the survey was to determine students' needs, as well as inform myself and CVM Counseling Services of ideal timing and implementation of program components. The survey asked students to identify their barriers to physical activity, times that may work best with their schedule during the semester, the types of physical activities that they are most interested in, and whether they would be willing to participate in or take on a leadership role in the well-being program. The needs assessment survey drafts are included in Appendix A. The idea was for CVM Counseling Services to phase out support, and the hope was for students to continue meeting for activities such as the dog walks with the organization of a participant leader after the program had ended. I also included a short process evaluation to determine whether or not the program was implemented properly and as planned. Seven elements of process evaluation were selected to adequately assess program content and implementation quality. The evaluation, found in Appendix B, was adapted from material presented in KIN 610 by Dr. Gina Besenyi.

Next, the meeting addressed the program's platform and launch. At the time, the program was intended to use the CVM Counseling Service's Canvas page. Students were to receive a Canvas course invitation. Once accepted, they would have access to the program schedule and receive alerts and reminders for events. There, they would also be able to track and report their physical activity through a weekly quiz. An email blast from both CVM Counseling Services and class officers was planned to launch the program. Faculty were also encouraged to make a quick announcement.

Lastly, during the meeting, we debated the potential for incentivizing participation in the program. Research indicates that the most appealing incentives for continued participation are personal investment in the creation of the program, and money (Durlak & DuPre, 2008; Volpp et al., 2009). Although money was not an appropriate incentive, we decided to offer other incentive prizes. A point system was established where each activity was associated with a point value. Points were awarded for participation in each activity. Then, a raffle system in Excel was used to

choose incentive prize winners. Student participants who participated in more activities accumulated more points which increased their likelihood of winning an incentive prize. This was intended to provide students, who participated regularly, with the opportunity to win a prize whether or not they achieved the most points during the specified time period. We intended to draw incentive prize winners bi-weekly, monthly, and at the end of the program.

Implementation Phase

Due to the uncertainty surrounding COVID-19 safety protocols prior to the start of the semester, the program preparation was modified to exclude key needs assessment processes including the focus groups or interviews and the needs assessment survey. This was done to minimize excess stress for students, given the unique challenges they faced when preparing for the Fall 2020 semester. The COVID-19 pandemic also presented some challenges for program dissemination. The semester began with roughly 20% of courses in-person, some hybrid (a combination of in-person and online), and some online. Due to the nature of the DVM program and other graduate programs housed within the CVM, the majority of students remained on campus to some degree. However, all K-State classes were moved to remote learning beginning the week of November 30, 2020 to minimize the spread of COVID-19. Students were discouraged from returning to the Manhattan area after traveling for Fall break. Therefore, all program activities were shifted to a virtual platform in order to accommodate for potential changes to safety protocols.

The virtual well-being program targeted all CVM students including DVM and graduate students housed within the CVM. Combined, the CVM is home to nearly 450 students, some of whom are off-campus performing internships. Faculty and staff also had the opportunity to participate. Participants were recruited via email blast; students on September 14, 2020 and faculty and staff on September 15, 2020. The email blasts are included in Appendix C. There was no commitment required, and participants could choose when and if they wanted to participate at any time.

CVM Counseling Services partnered with CVM media staff to use Facebook as the program platform after the Dean expressed concerns about Canvas. A recent CVM poll identified that students disliked the Canvas notification system. It was discovered that to mute Canvas notifications from one page would ultimately mute notifications to all enrolled Canvas pages. The Facebook page titled “K-State CVM Wellness Program” was made private. Students were

accepted into the group by members of the CVM Counseling Services and CVM media teams. Every structured activity was posted to the page with a short description and unique Zoom or webpage link. I was responsible for creating the caption, and providing the link for the Movement Minutes post shown in Figure 2.1. The CVM Instagram account was also used to promote the program, and it occasionally shared some of the same posts created for the Facebook page. The students were surveyed to develop a well-being hashtag to encourage sharing of wellness activities via social media. This is ultimately how the program was named, #wellvetwellpets.

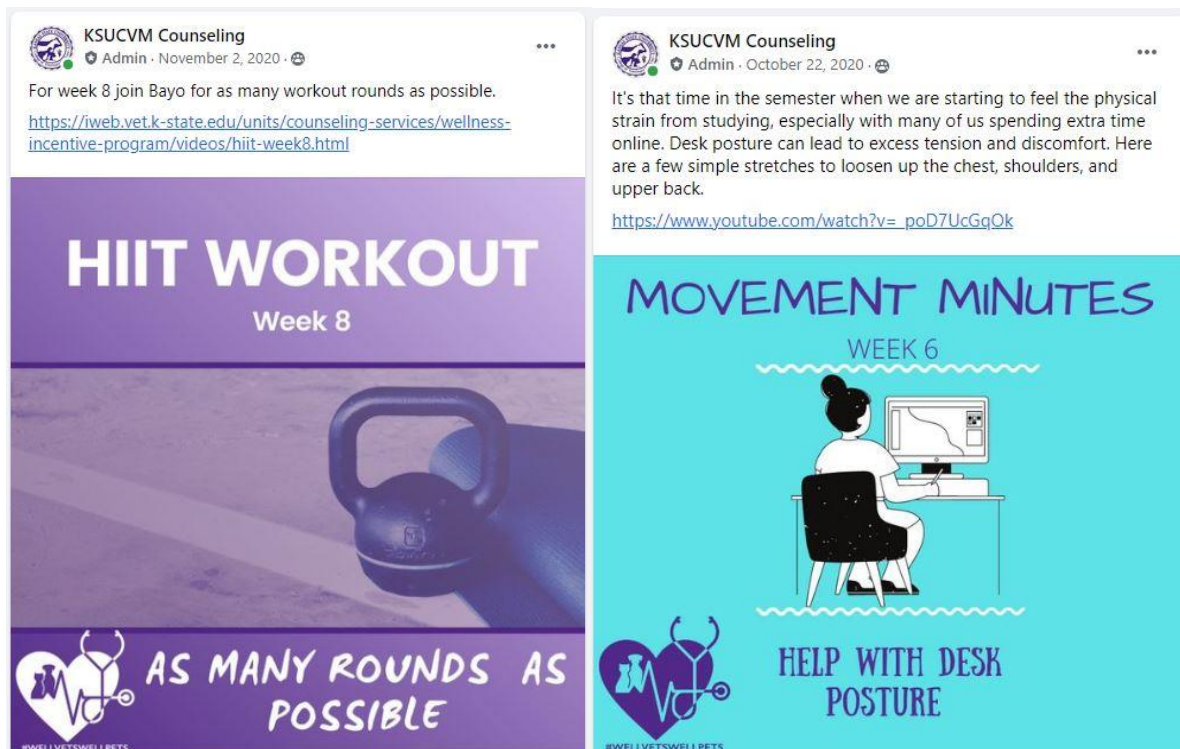


Figure Error! No text of specified style in document..1 Facebook Posts

The 10-week program included the activities listed in Figure 2.2 Structured activities offered regularly each week included the High Intensity (HIIT) Weekly Workouts, Personal Trainer Tips, Movement Minutes, and Zoom Yoga. The HIIT Weekly Workout videos were created by Bayo Adio, owner and founder of AdioFit. Anneliese Spence, founder of Unbreakable Strength Co., created the videos for the weekly Personal Trainer Tips. I provided short video clips for Movement Minutes that were five to ten minutes in length. All videos were published on YouTube Channels highlighting physical activity promoting webpages. Zoom Yoga was

broadcasted live over Zoom by Gabrielle Viddivo of Little Apple Pilates. The typical schedule of structured activities that were offered each week is shown in Figure 2.3.

How To Earn Points		
Activity	Description	Point Value
Personal Consultation	Have a short 10-15-minute meeting with a K-State Certified Athletic Trainer and MPH student to help identify your physical activity barriers and develop a plan to overcome them. Please contact Shelby Hunt shelby30@ksu.edu to schedule consultation.	10
Expert Tips and Tricks	The CVM will host four expert presentations about pertinent health topics such as technology to improve health behaviors, effective workouts in unique spaces, mindfulness, and nutrition and deceptively unhealthy foods. Plan to tune-in via Zoom over the lunch hour. Questions are encouraged!	5
Self-Care Moments	Learn more about the situations and conditions that cause your psychological stress, as well as the resources you have available to combat them.	4
Resilience Builders	Watch and learn how to perform several stress management techniques from CVM Counseling Services	4
High Intensity (HIIT) Weekly Workout Video	Local personal trainers will develop and demonstrate creative workouts that can be performed with minimal to no equipment.	2
Personal Trainer Tip	Local personal trainers will provide insider tips and tricks to increase your activity and improve the quality of your existing activity.	2
Movement Minutes	Improve health, attention, and productivity by performing short bouts of physical activity throughout the day.	2
Physical Activity — Weekly HIIT Workout — Personal Trainer Activity — Movement Minutes — Zoom Yoga — Walking — Biking — Companion Animal Activity	Record as many minutes of physical activity as you can. Try participating in a variety of posted activities, record your active travel by foot or bike, or time spent being active with your pets! Physical activity options are not limited to the items on the list. Get creative to meet your needs! Personalize your experience to meet your goals and make the most of your time.	1 minute= 1 point
Mindfulness & Meditation	Put into practice mindfulness and meditation to reduce stress, alleviate tension, and rejuvenate. Continue your current practices or try incorporating new techniques shared by CVM Counseling Services.	1 minute=1 point
Team Challenge Activity	Double your chances of winning a prize by participating in challenge weeks! You will be placed into small teams to accumulate physical activity points for specific activities. Utilize your teammates as support- from a distance! Team members of the winning team will win prizes separate from that of the weekly drawings!	1 minute= 1 point

Figure Error! No text of specified style in document..2 Activity Descriptions and Point Values

Monday	Tuesday	Wednesday	Thursday	Friday
HIIT Workout @ 8:30am	Movement Minutes Post @ 8:30am	Personal Trainer Tip @ 8:30am	Movement Minutes @ 8:30am	Zoom Yoga @ 12pm
Zoom Yoga @ 12pm		Zoom Yoga @ 12pm		

Figure Error! No text of specified style in document..3 Typical Weekly Schedule

Expert Tips and Tricks, Self-Care Moments, and Resilience Builders were offered periodically throughout the course of the program. I found eligible speakers for Expert Tips and Tricks for topics covering physical activity and nutrition. Expert Tips and Tricks consisted of four 20-minute expert lectures addressing topics proposed by the Dean of the CVM. Justin Deblauw MEd, provided information about “Technology to Enhance Health Behaviors.” Dr. Emily Mailey PhD, proposed ideas for “Effective Workouts in Unique Spaces.” Dr. Kyle Horst

PhD, LMFT, presented an “Introduction to Mindfulness.” Lastly, Dr. Sara Rosenkranz PhD, discussed “Deceptively Unhealthy Foods.” Self-Care moments were developed and presented by Richard Dell’Isola MFT, LMFT. He discussed anxiety, difficult dialogues, and depression over the course of three videos lasting approximately 30 minutes each. Resilience Builders were hosted by Dr. Hafen and Dr. Drake. Topics included “Breaks as Stress Repair,” “Appreciation Moments,” and “Acts of Service.” All were introduced to students in eight minutes or less. All lecture activities were typically offered live via Zoom over the noon lunch hour on either Tuesday or Thursday in order to avoid conflicting with Zoom Yoga. Presentations were also recorded and archived on the CVM intranet webpage for the Well Vets Well Pets program, alongside the other structured activities, so students could watch them at a later date. The CVM intranet page is shown in Figure 2.4.

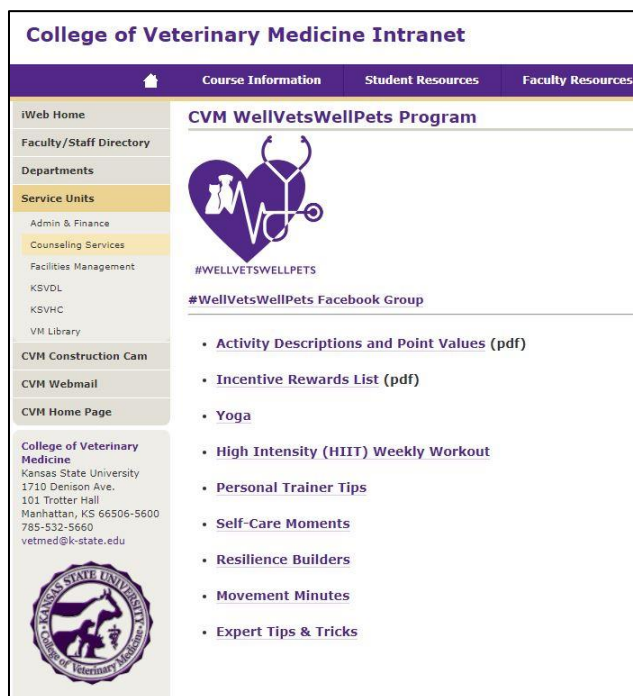


Figure Error! No text of specified style in document..4 CVM Intranet Webpage for Well Vets Well Pets

In order to keep students motivated, there were three Challenge Weeks placed strategically throughout the program. Students were randomly assigned to teams of three to five participants, designed to offer social support. Challenge Weeks occurred during weeks three, seven, and nine. Targeted activities included walking, mindfulness and meditation, and preparing healthy meals at home. Lastly, students had the opportunity to plan a 10- to 15-minute personal

consultation with myself to address behavior change. Students received a Physical Activity Planning Worksheet in advance to help them identify their physical activity preferences and availability to engage in physical activity. Once at the meeting, we discussed potential activity barriers and created a plan to overcome those barriers. The Physical Activity Planning Worksheet was created by myself in collaboration with the Physical Activity Intervention Research (PAIR) Lab, and is shown in Appendix D. All activities are listed and described in greater detail in Figure 2.2. Ms. Kayla Campbell and I prepared Figure 2.2 for the CVM intranet webpage.

The well-being program was restructured to separate the CVM student participants into two groups: advanced trainees and DVM students. Advanced trainees consisted of class officers and graduate students housed within the CVM. Although this group was significantly smaller than the other, CVM Counseling Services wanted to distinguish the class officers and graduate students based on merit. Weekly, monthly, and semester raffle winners were drawn from each group based on their total point accumulation from participation in lectures, personal consultations, and minutes of physical activity participation. Figure 2.2 listed point values associated with each activity and could be referenced on the CVM intranet webpage.

Every Monday beginning with week two, students received an email containing a link to a Qualtrics survey, prompting them to report participation in lecture activities and personal consultations, and minutes of physical activity participation. As an example, the survey asked, “did you participate in our zoom yoga sessions (live via zoom or recorded)?” Then, “If yes, what is the total number of minutes (in numeric value) for the entire week that you spent doing our zoom yoga sessions?” would follow. Surveys were made to be specific to the structured activities provided each week. Students were also able to report participation in other unstructured activities such as walking, biking, and companion animal activity. Surveys closed Wednesdays at noon. Qualtrics results were exported to Excel where data summaries were calculated and a raffle function was used to choose winners of the weekly incentive prize. On Fridays, winners were announced through email. Monthly incentive prize winners were chosen using the same Excel raffle function based on their point accumulation from participation in lectures, personal consultations, and minutes of physical activity participation during each month: September, October, and November. Similarly, semester incentive prize winners were also chosen using the Excel raffle function based on their total point accumulation over the course of the 10-week

well-being program. In the DVM student group, two incentive prize winners were chosen weekly, three were chosen monthly, and one was chosen for the semester. In the advanced trainee group, one incentive prize winner was chosen weekly, three were chosen monthly, and one was chosen for the semester. Healthy meals from Panera (a partner account with the CVM), a three-month fitness app membership to Unbreakable Strength Co., K-State gear such as water bottles and gym bags, and a smart watch were incentives meant to further promote the healthy lifestyle goals of the overall well-being program. Participation of faculty and staff was also incentivized. Each month, faculty and staff who had shared at least one social media post and had participated in wellness activities, were entered to win a Panera family meal for four.

Evaluation Phase

Our intention was to evaluate the overall well-being program for effectiveness based on pre-and post-intervention survey data. The wellness survey was used previously by CVM Counseling Services for published research. It measured seven areas: eating habits, sleeping habits, exercise, meditation, social media usage, finances, and psychological well-being. Psychological well-being was assessed with the 18-item Ryff Psychological Well Being Scale. The scale measures six dimensions of well-being: self-acceptance, autonomy, environmental mastery, purpose in life, positive relations with others, and personal growth. A review of Ryff's Psychological Well Being Scale performed by Seifert (2005) found that the scale may be a valid and reliable measure of psychological well-being for use among college students. Dr. Seifert concluded that the scale may aid institutions in developing meaningful programming to enhance college student well-being (Seifert, 2005). Previous versions of the wellness survey measured exercise with two questions, which asked students to identify the number of days per week that they routinely exercise and the average length of time of each exercise session. The current wellness survey was modified to include three additional physical activity questions I created. The questions are as follows:

- 1- "What are your barriers to physical activity? (i.e., Work schedule, dislike of physical activity, home/childcare responsibilities, etc.)"
- 2- "What are some ways in which you *have* overcome your barriers to physical activity?"
- 3- "What are the tools that you *need* to overcome your barriers to physical activity?"

The questions were designed for the collection of qualitative data in regard to the students' physical activity behaviors and barriers. Demographic information including student GPA and year in the DVM program were also included in the wellness survey. Each student survey can be paired and compared based on unique identifiers such as high school mascots and pet names. The revised survey was submitted for IRB approval by Dr. Drake and approval was received on September 1, 2021. A complete copy of the survey is located in Appendix E.

The baseline survey was then conducted during the week of September 14, 2020. The survey was sent out in an email blast from CVM Counseling Services to all DVM students within the CVM. Students were able to respond through a Qualtrics link. The post-intervention survey was to be sent out via email the week of November 23, 2020 and remain open for two weeks to respect the students' holiday. Unfortunately, the final survey was not administered due to the unique challenges associated with the transition to remote learning. Therefore, a full analysis of the program will occur after a second round of the program is disseminated in the Spring 2021 semester.

Fortunately, I was able to perform a qualitative interpretation of the three physical activity questions that were added to the original survey at baseline. I also examined overall student participation, as well as physical activity participation, in the Well Vets Well Pets program. The specific details of both visual interpretations are located in Chapter 3. Lastly, I presented potential modifications to future programming to Dr. Hafen and Dr. Drake at CVM Counseling Services. Modifications included focusing on one cohort of the CVM, targeting self-efficacy for specific needs identified by students, building in social support, and instituting policy changes in order to create a health promoting culture at the CVM. The presentation of potential modifications is located in Appendix F and explained in more detail in the discussion.

Results

Wellness Survey Data Collection

The baseline survey was conducted during the week of September 14, 2020. The survey was sent out in an email blast from CVM Counseling Services to all DVM students within the CVM. Students responded to the survey through a Qualtrics link. Although many questions addressed various aspects of well-being, only the three questions I designed regarding physical activity have been interpreted thus far. A full analysis of the program will occur after a second

round of the program is implemented in the Spring 2021 semester. It is anticipated to provide a more robust analysis of program effectiveness and student experiences.

A visual qualitative interpretation of each physical activity question is presented in the tables below. Of the ~450 students in the CVM, 146 responded to the baseline survey. I identified five common themes for each question, based on the frequency of repeated phrases made by students, with supporting thoughts and concepts. Thoughts and concepts are also introduced in order of frequency. Only two statements per theme were provided as examples for the sake of efficiency, but are still intended to enrich the quality of data.

Table 3.1 Qualitative Interpretation of Question #1

Question #1- *“What are your barriers to physical activity? (i.e., Work schedule, dislike of physical activity, home/childcare responsibilities, etc.)”*

Themes	Concepts/Thoughts	Student Statements
School Barriers	1- Large class load 2- Rigorous exam schedule 3- Long clinical hours 4- Extracurricular activities	1- <i>"I am constantly behind and feel like I'm barely keeping my head above water. Between two exams a week plus take-home assignments plus quizzes plus surgery and a 22-hour course load I feel as if there aren't enough hours in the day."</i> 2- <i>"I keep telling myself if I keep working hard, I'll eventually be on task enough to find balance but I am always so behind so I have to continue prioritizing school."</i>
Individual Barriers	1- Lack of motivation 2- Lack of sleep or low energy 3- Dislike of PA 4- Guilt associated with taking time for PA 5- Lack of self-efficacy	1- <i>"Not being rested enough from staying up late and studying."</i> 2- <i>"When I do take a break from studying to go for a walk, I feel guilty."</i>
Environmental Barriers	1- Lack of facilities 2- Weather 3- Unfamiliarity with Manhattan	1- <i>"Gyms closed due to COVID."</i> 2- <i>"I don't feel like I know the area well enough to just go for a walk or a bike ride."</i>

Health Barriers	1- Poor mental health 2- Physical Injury or disability 3- Other/unspecified health conditions	1- <i>"Honestly sometimes I am just depressed and don't feel like it."</i> 2- <i>"Old knee injury."</i>
Personal Life Barriers	1- Household tasks 2- Family responsibilities 3- Lack of social support 4- Work	1- <i>"Wanting to hang out with my husband and do other activities (i.e. go get dinner, do some shopping, etc.)."</i> 2- <i>"Lack of people to go with."</i>

Table 3.2 Qualitative Interpretation of Question #2

Question #2- *"What are some ways in which you have overcome your barriers to physical activity?"*

Themes	Concepts/Thoughts	Student Statements
Individual Skills	1- Schedule PA 2- Take breaks 3- Goal setting 4- Multitasking	1- <i>"If I get really anxious, I try to step away and go walk to reset myself instead of either trying to continue inefficiently due to the anxiety or stress eating."</i> 2- <i>"I listen to lectures while I run."</i>
Social Support	1- Companion animal activity 2- Plan PA with friends 3- Shared responsibilities	1- <i>"Taking my dog on a walk/jog/hike."</i> 2- <i>"I am working on encouraging others in the home to help more with meals and cleaning."</i>
Alternative PA	1- Virtual fitness class/program 2- Home-based PA 3- Active commute 4- External motivation	1- <i>"I refused to purchase a parking pass. If I need to come into campus for several hours, I have to bike or pay for metered parking. Biking is 2.3 miles each way."</i> 2- <i>"Signed up for 5Ks and forced myself to train."</i>
Sacrifice	1- Sleep less 2- Study less 3- Skip class 4- Skip meetings	1- <i>"By sacrificing other things... like sleep or study time."</i> 2- <i>"Sacrificing academics."</i>
No solution	1- No solution 2- No response	1- <i>"I can't say that I have."</i> 2- -

Table 3.3 Qualitative Interpretation Question #3

Question #3- “*What are the tools that you need to overcome your barriers to physical activity?*”

Themes	Concepts/Thoughts	Student Statements
School changes	1- More flexible schedule 2- Regulated clinical hours 3- Mental health days	1- <i>"Take home exams or long periods of time to be able to take exams help a lot with this (scheduling flexibility)."</i> 2- <i>"I need a mental health day here and there. I have never been more depressed when I saw they had cancelled spring break."</i>
Individual resources	1- Time management 2- Efficient study methods 3- Stress management 4- More sleep	1- <i>"Learning how to manage stress in order to sleep better."</i> 2- <i>"Right now, studying takes me forever.... My old way of studying isn't as efficient in grad courses."</i>
Facilities	1- Extended gym hours 2- Varying group fitness schedules	1- <i>"More variable times for exercise classes and club meetings."</i> 2- <i>"Better gym hours."</i>
Social support	1- Accountability 2- Instructor support 3- Workout partners	1- <i>"I need staff to be more understanding of our situation."</i> 2- <i>"Accountability partners."</i>
CVM Culture	1- Emphasize student well-being 2- Recognize the importance of other life events/responsibilities	1- <i>"Care about the students and their mental health more."</i> 2- <i>"Knowing it's okay to take time out of my day to workout instead of study"</i>

Qualitative Data Summary

The most frequently identified barriers to physical activity were large class loads, rigorous exam schedules, lack of motivation, lack of sleep or energy, poor mental health, and household responsibilities. When asked to identify ways in which they have overcome their physical activity barriers, 34.9% of participants did not respond, while 10% of participants responded indicating no strategy to overcome their physical activity barriers. Those who responded with strategies to overcome their physical activity barriers identified scheduling physical activity, companion animal activity, virtual fitness class/programs, planning physical

activity with friends, sleeping less, and studying less. Students indicated that they need a flexible schedule, time and stress management skills, efficient study methods, accountability, instructor support, an emphasis on student well-being, and recognition of other life events/responsibilities as important to overcome their physical activity barriers.

Wellness Program and Physical Activity Participation

Weekly survey data was collected each week of the 10-week Well Vets Well Pets program. Weekly surveys assessed participation in program activities, as well as physical activities performed outside the program. No quantitative statistical analyses were performed when creating the visual displays of data below.

Participation

When compared to previous research conducted by CVM Counseling Services, participation in the Well Vets Well Pets program was unusually low. Participation was measured based on responses to weekly surveys. Figure 3.1 depicts student participation over the course of the 10-week program. Compared to the approximately 450 students housed in the CVM, the program peaked in week one with about 12.6% participation. Figure 3.2 provides a magnified view of student participation over the course of the program, showing a steady decline in participation.

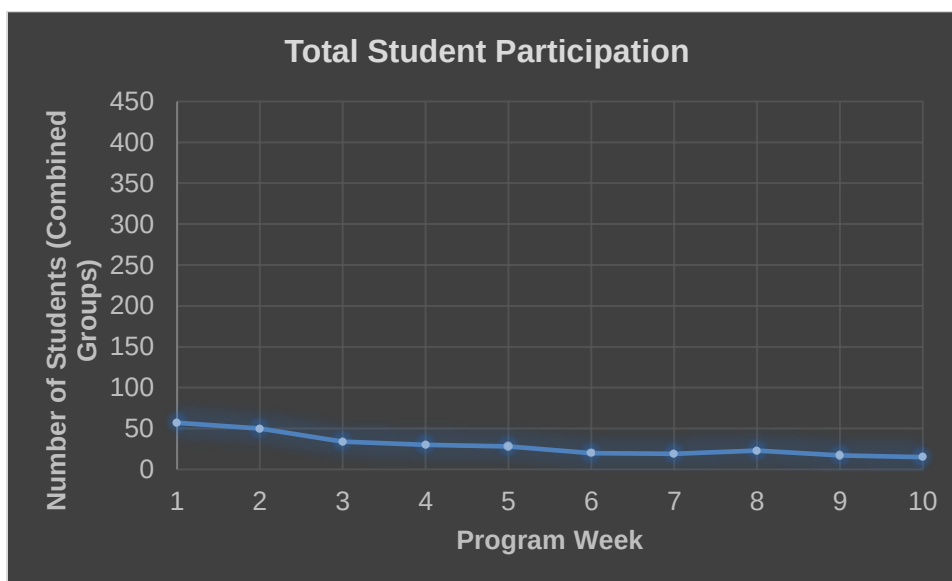


Figure 3.1 Total Student Participation

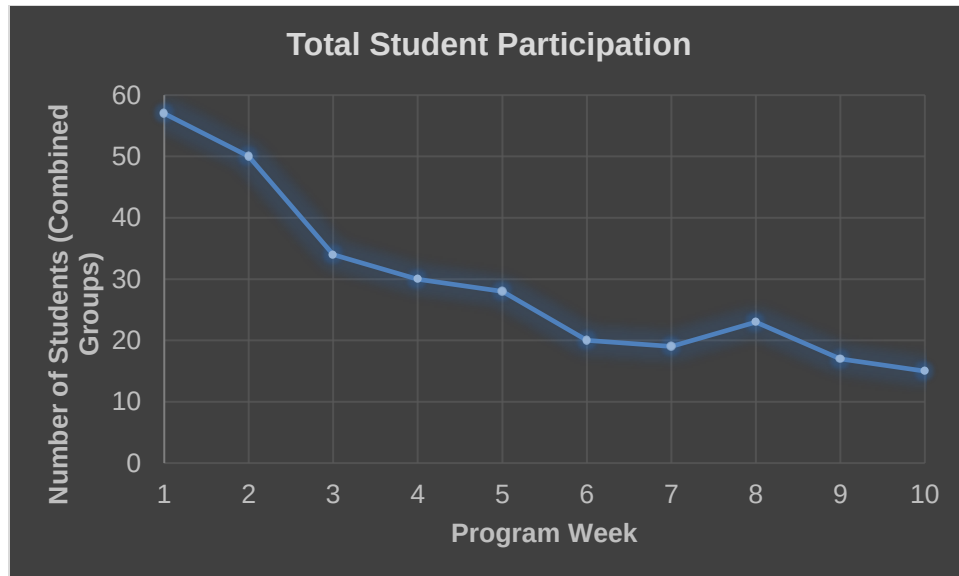


Figure 3.2 Total Student Participation Magnified

Physical Activity

Total minutes of physical activity participation reported by student participants also declined over the course of the program, as would be anticipated with fewer participants (Figure 3.3). However, there is a slight upward trend in reported minutes of physical activity when compared to the number of students participating each week. This was calculated by dividing the total number of minutes of physical activity for the week by the number of participants who responded to the survey that week. This indicates that on average students who continued to participate in the program reported participating in slightly more minutes of physical activity at week 10 as they did at week one (Figure 3.4).

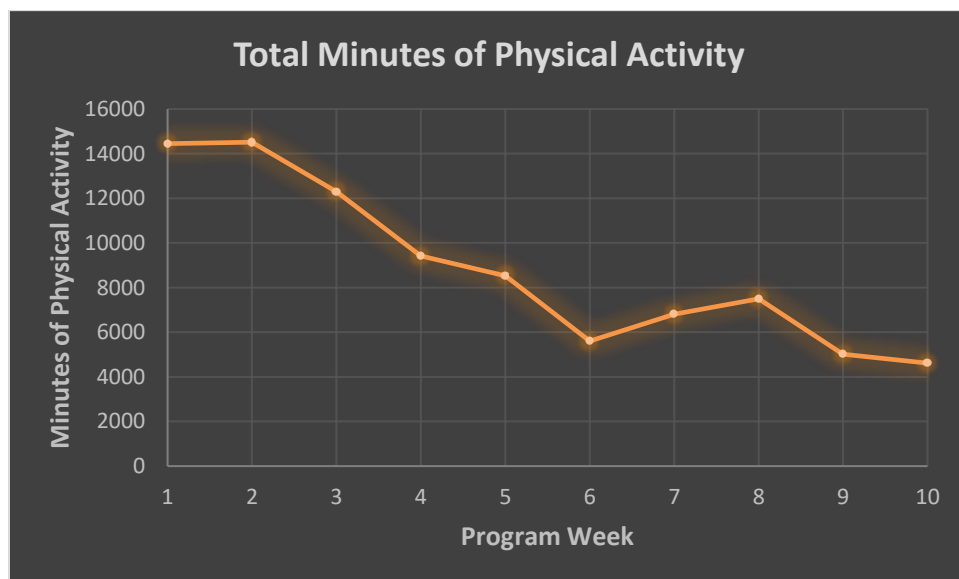


Figure 3.3 Total Minutes of Physical Activity Reported

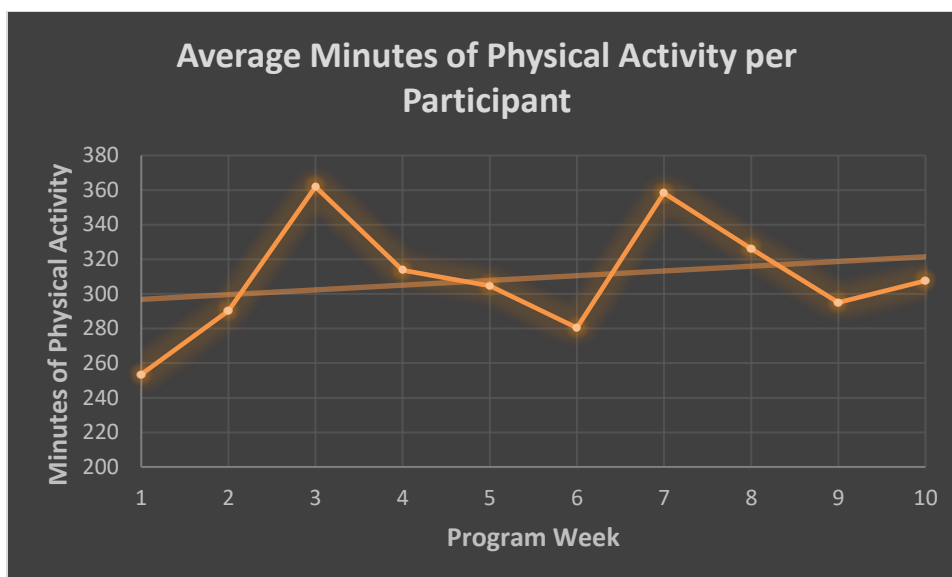


Figure 3.4 Average Minutes of Physical Activity Reported per Participant

Activities

Weekly survey data was also examined to determine which activities were used most frequently by students. Activities were divided into structured, unstructured, and periodic activities. Structured activities were those designed and offered by CVM Counseling Services for the program and included the HIIT Weekly Workouts, Personal Trainer Tips, Zoom Yoga, Movement Minutes, and Personal Consultations. The unstructured activities were those in which students engaged outside of the program, but reported for their program involvement, and included other yoga programs, companion animal activity, and other active endeavors. Other active endeavors included physical activities such as playing racket ball or hiking. Periodic activities were those that were delivered by the program, but did not occur weekly. Periodic activities included Self-Care Moments, Resilience Builders, Expert Tips and Tricks, and Team Challenges.

Figure 3.5 details the average number of minutes of physical activity that were accumulated weekly for each activity. Although the Personal Consultation was a structured activity, it was not included in Figure 3.5 because it was educational in nature rather than an opportunity to engage in physical activity. It is worth noting that the minutes of physical activity displayed in Figures 3.5 and 3.6 are indicative of the participants as a whole rather than individually accumulated minutes of physical activity. For example, the 94.5 minutes of physical activity accumulated for the HIIT Weekly Workout was from the combined effort of all

participants who reported responses for that week. When compared to the unstructured activities in Figure 3.6, the minutes of physical activity accumulated by the HIIT Weekly Workout seem miniscule. Students reported much greater minutes of physical activity in unstructured activities, particularly other active endeavors and companion animal activity.

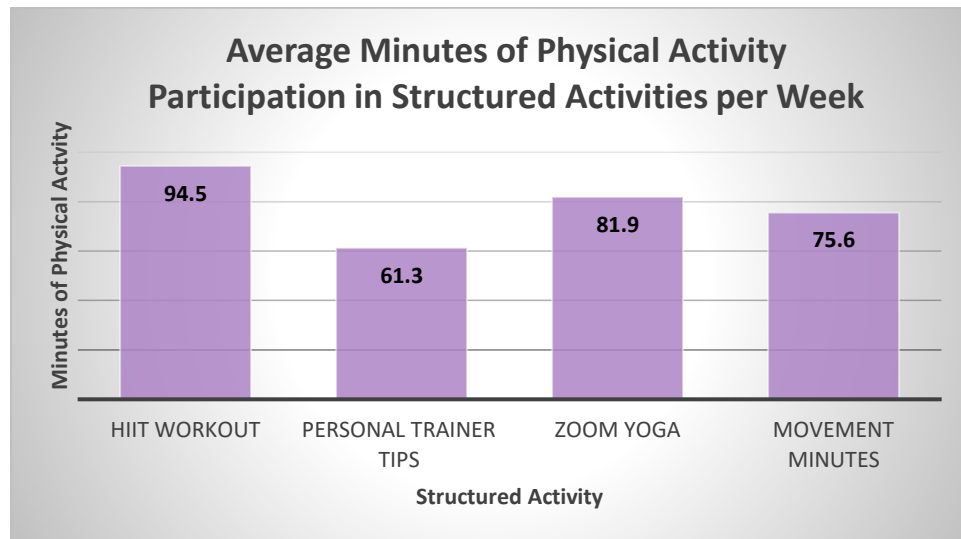


Figure 3.5 Structured Physical Activity

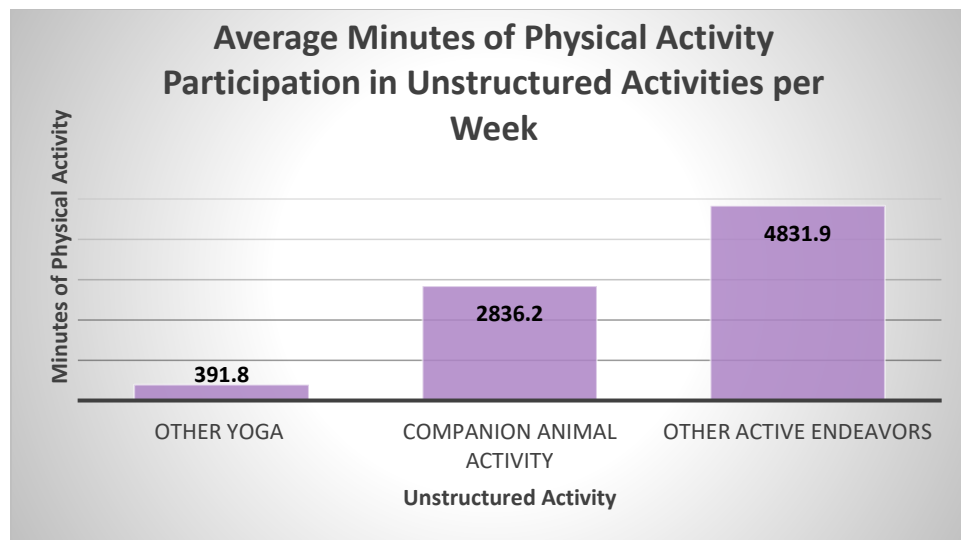


Figure 3.6 Unstructured Physical Activity

Weekly survey data were also examined to identify the number of students who participated in each activity throughout the 10-week program and are presented in Figure 3.7. Students participated in Movement Minutes more frequently compared to other structured

activities. Zoom Yoga and the Personal Consultation had the fewest participants each week. Figure 3.8 provides a similar break down for unstructured activities. Students appeared to participate in unstructured activities more frequently than structured activities. For instance, companion animal activity and other active endeavors had nearly six times the number of participants as Movement Minutes, which had the most participants each week for the structured activities.

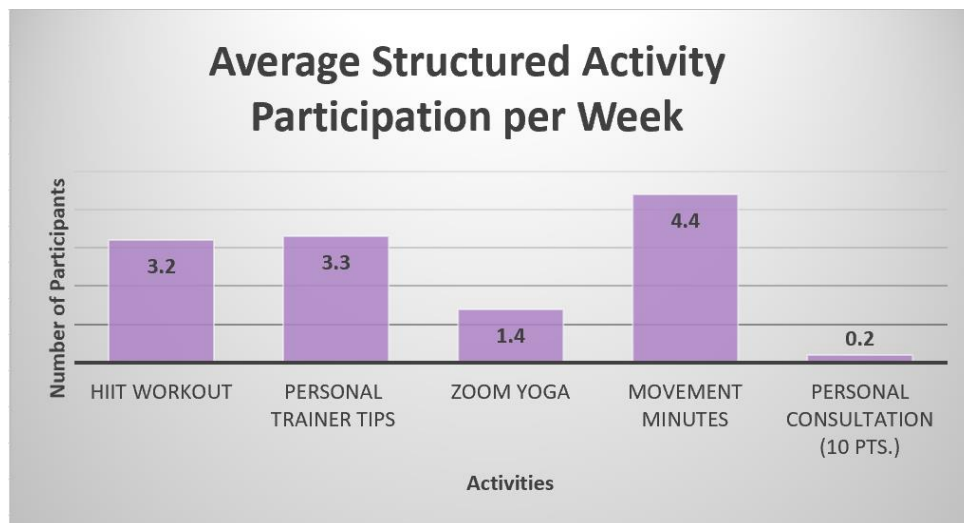


Figure 3.7 Structured Activity Participants

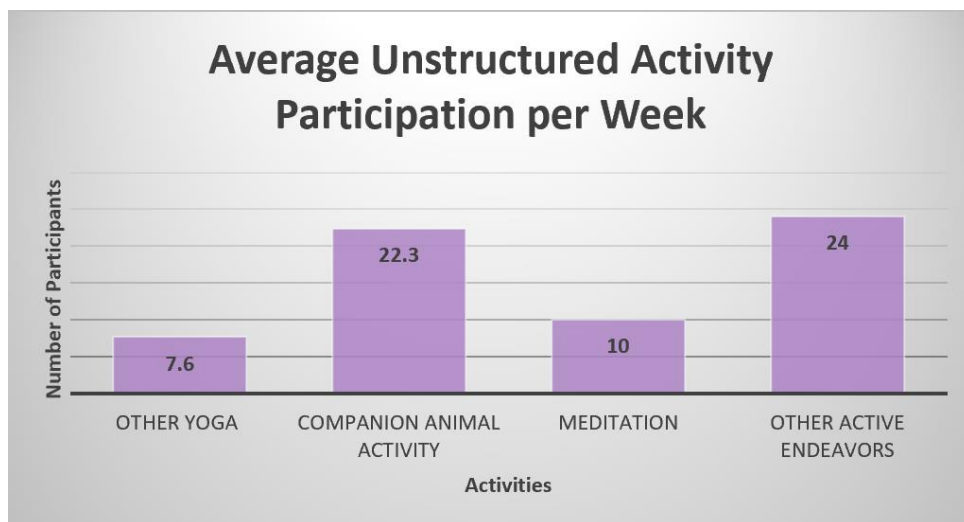


Figure 3.8 Unstructured Activity Participants

Participation in periodic activities was not interpreted due to mistakes made in the creation of the weekly Qualtrics surveys. Many of the weekly surveys did not ask participants if

they participated in periodic activities offered during the week being assessed. For instance, student participation in three of the four Expert Tips and Tricks lectures were never assessed by a question on a weekly survey. Some weekly surveys incorrectly asked participants if they participated in a periodic activity that was not offered during the week being assessed. For example, participation in the Self-Care Moments video offered during week six was assessed on the week seven weekly survey. These recurring issues made it nearly impossible to track participation as live Zoom attendance was not recorded and the intranet webpage is unable to track activity.

Discussion

CVM Counseling Services at K-State attempted to address the mental health needs of students by the implementation of the Well Vets Well Pets program. The program intended to use physical activity to promote improvements in mental health, although mental health outcomes were not measured for this project. The program faced adversity in light of the COVID-19 pandemic which caused it to alter its plans and timeline. The following discussion addresses limitations and insights into program design and implementation based on the survey data that were collected and examined. The discussion also introduces potential program modifications for future implementation of the Well Vets Well Pets program.

Poor Participation

Unfortunately, the program had poor participation. The program may have lost target population investment when CVM Counseling Services chose not to host the house officer focus groups or interviews. The exclusion of this needs assessment tool limited class officer involvement in the program. The primary goal of the class officer focus groups was for class officers to express concerns and ideas on behalf of their classmates. Secondary to that, their investment in the program had the potential to boost program participation. Class officers may have been devoted to the success of a program that took their preferences into consideration and may have subsequently encouraged their peers to participate (Deliens et al., 2015). The initial planning included an email blast sent by class officers supporting the Well Vets Well Pets program, but this was not done. Students may have felt more inclined to participate when their elected leaders directly expressed support for the program, making it clear that program goals were to improve student mental and physical well-being.

The program was edited numerous times during program planning due to the ever-changing climate surrounding the COVID-19 pandemic. This left us program planners scrambling to meet our Fall 2020 semester start. The start was delayed to the last possible option to allow for a 10-week program while students were anticipated to remain on campus. Unfortunately, the program was launched on the same day as the program was announced via email blast. With such late notice, students had little time to consider or prepare for participation in the program. Greater participation would have been likely had students been introduced to the program at least one week in advance from multiple modes of communication.

The email blast sent by CVM Counseling Services to students did not truly include all CVM graduates. For instance, Master of Public Health (MPH) graduate students with emphasis areas supported by other departments at K-State such as the Departments of Kinesiology and Food, Nutrition, Dietetics, and Health did not receive the email. This is partly due to the structure of the CVM. Some programs are not viewed as part of the community and are not expected to utilize resources available to DVM students and other graduate students with more similar degree interests. This is made evident with the CVM intranet. Some graduate students are not able to access the page, although they are housed within the college. As an example, I personally had to apply for an account to use the intranet webpage for the Well Vets Well Pets program. Creating a more inclusive CVM environment for all who call the CVM their degree home would likely encourage participation in the program. I speculate that MPH students of varying emphasis areas would have shown interest in the Well Vets Well Pets program had they been included.

Loss of Focus

As previously mentioned, the program preparation was modified to exclude key needs assessment processes, including the focus groups/interviews and the needs assessment survey. Although this was done to minimize excess stress for students, given the unique challenges they faced when preparing for the Fall 2020 semester, this left the program with little insight into the specific needs of the students. Prior research conducted by CVM Counseling Services allowed for speculation, but did not adequately assess physical activity. Rather, the research focused primarily on prevalence of depression and anxiety. After reviewing data from the baseline survey, it was evident that students' concerns were not adequately addressed within the program. From the students' perspective, lack of physical activity and poor mental health were not due to lack of desire to be active or lack of education regarding how to be active. Most students

expressed a desire to be more active, even mentioning certain activities they enjoy. However, lack of time due to poor time management skills and inefficient study methods was identified. Some students also indicated lack of motivation and a need for accountability. Students also indicated there was a guilt-promoting environment at the CVM, alongside lack of understanding from professors.

Without having access to these data, the program began focusing on fitness rather than physical activity promotion. During the program planning phase, there was much disagreement about point values. Some individuals believed that point values should be indicative of how challenging the exercise was. For instance, the HIIT Workout was compared with Movement Minutes. There is some research focused on forms of exercise and their influence on stress reduction. Most forms of exercise are recognized for stress reduction, but the type of exercise may be less relevant than the enjoyment of the exercise (Berger & Owen, 1988; Mayo Clinic, 2020). The HIIT Workout would be more likely to improve fitness as compared with Movement Minutes. However, if an individual does not enjoy the HIIT Workout, they are less likely to engage in the behavior altogether.

Tenacious Implementation

The adaptability of the planning phase was not experienced during the implementation phase. As the program continued, it became evident that certain structured activities were less used, while certain unstructured activities were more frequently performed. For instance, few students regularly used Zoom Yoga or Personal Consultations, indicating that these program components were not liked by the participants, were inconvenient, or were poorly advertised. Rather than discontinue activities to save resources or adapt them to improve participation, the programming persisted. Granted, some structured activities involving outside entities such as the HIIT Workouts were contracted. Therefore, their videos were paid for and pre-recorded before the program started. However, other activities were more easily modifiable. Certain unstructured activities, such as Companion Animal Activity, were stand-outs that may have been easily integrated into structured activities to improve participation. For example, the Challenge Week which highlighted walking, had the greatest participation of all the Challenges Weeks. The description posted on social media encouraged walking with pets. This may have contributed to its relative success.

Nearly \$4,000 worth of incentives were planned for and purchased ahead of time. This may not have been the ideal plan because of the low participation rates. Many student participants won an incentive prize multiple times for weekly, monthly, semester, and team challenge drawings. CVM Counseling Services preferred as many participants to win as possible, therefore redraws occurred on multiple occasions. Regardless, with low overall participation rates, many students won prizes several times over the course of the 10-week program. To ameliorate the situation and save resources, a few adjustments could have been made. First, fewer weekly and monthly prizes could have been provided per group. Second, the Advanced Trainee group having been so small, could have been absorbed into the DVM student group. Third, prize eligibility could have been adjusted to better incentivize physical activity. For instance, some monthly winners only participated in one or two weeks out of the entire month but were still deemed eligible for prize drawings. The same can be said for semester winners. Students who did not participate for the entirety of the time period could have been determined ineligible for prizes thereby saving resources. Promoting more consistent behavior throughout the entire month or semester may have been important not only to better promote the healthful behaviors associated with the intent of the program, but also to save resources that could have been better used elsewhere. For example, the excess funds could have purchased additional healthful foods for the Purple Pantry. Fourth, incentives could have been used to incentivize students to create new activities which may lead to greater student investment. As an example, student participants could submit physical activity ideas, then all student participants could vote on the activity they would like to incorporate into the program. The student whose activity was selected could win an incentive prize. Lastly, some program monies could have been used to market the program. Potential marketing strategies could include posting flyers in common areas of CVM buildings, providing class officers with program t-shirts they could wear to class, and offering participants backpack buttons with the program logo.

Unsustainable

Unfortunately, the program, as implemented, was unsustainable. According to the American Cancer Society, community engagement, such as assistance in program development and implementation, increases the likelihood of sustainability due to community pride and sense of purpose (American Cancer Society, 2015). For instance, Shape Up Somerville showed continued overweight and obesity remission when program implementation was strategically

transitioned to leaders among the target population (Economos et al., 2013). Neither assistance with development nor implementation among participant stakeholders occurred for Well Vets Well Pets. Next, the incentive structure was reasonable to spark initial participation (Volpp et al., 2009). However, the poor participation in the program suggests that once incentives are no longer offered, it is unlikely that participation would continue. Funders are not likely to find a costly program with poor participation worthy of their support. The program having been implemented during the COVID-19 pandemic also may have influenced participation. Lastly, the program did nothing to address the pre-existing attitudes and culture of the CVM regarding self-care. For example, students reported feeling guilty for taking breaks. Often in higher education, students are mentally and emotionally pushed to their limits, a concept known as “workism.” “Workism” is the ideal that one’s work defines both one’s identity and life purpose (Thompson, 2019). Those who take on the most responsibility, and are under the most stress, are more highly regarded as compared to those who take time to care for their mental health. Caring for one’s mental health through physical activity, mindfulness, and meditation practices must at the very least be viewed as acceptable within the CVM culture. Class officers, upper classmen, faculty, and staff have the potential to create an environment more conducive to self-care. For example, CVM Counseling Services could record student testimonials that discuss the students’ self-care regimens which may normalize self-care.

Unclear Evaluation Measures

The program has yet to be fully analyzed. This is primarily due to the lack of final survey results. The responses to the seven target areas of the survey; eating habits, sleeping habits, exercise, meditation, social media usage, finances, and psychological well-being can be compared in the Summer of 2021 to provide insight regarding changes. However, it is still unclear how program success will be determined. For example, what percentage of participation is ideal? How large of an impact is necessary to justify further implementation? What threshold score on the survey shows sufficiently improved mental health? Did the students enjoy the program? The construction of a program logic model may be beneficial for the Well Vets Well Pets program. Logic models summarize the key elements of a program and provide a visual representation of the “if-then” relationship between program activities and the corresponding desired outcome for each activity. Logic models also help identify critical questions for program evaluation.

Potential Program Modifications

Potential program modifications focus on influencing three constructs that were alluded to in student comments: self-efficacy, social support, and culture. It became apparent that students lacked barriers self-efficacy for physical activity, and task self-efficacy for time management and study skills. Lack of barriers self-efficacy was demonstrated by student responses to question two in which they either identified they had no strategies to overcome their barriers, or simply did not answer. Second, students identified a need for social support when they stated that they needed someone to hold them accountable. Lastly, the students' perceptions of the culture of the CVM indicate that it may not be conducive to self-care. The program activities I presented to CVM Counseling Services are summarized below and described in greater detail with supporting peer-reviewed literature in Appendix I.

A peer group "walk and talk" session would target social support through peer encouragement and engagement. Just as the name suggests, students would engage with one another while going for a walk. Prompts reflecting concerns mentioned by students during the baseline survey would be provided to initiate discussion at each session. Peer groups would be encouraged to expand beyond the prompts, as well as discuss pertinent concerns or thoughts. Ideally, each session would occur outdoors. Walk and talks could also be designed to include companion animal activity such as dog walking, considering it was the most reported activity by students in the initial program. To improve barriers and task self-efficacy, four 50-minute workshops would directly address several of the concerns mentioned by students including managing time wisely, studying efficiently and effectively, overcoming physical activity barriers, and promoting the acceptance of self-care. Workshops would target self-efficacy through mastery experiences and modeling. As Hunt et al. (2004) mentioned, forces of culture either promote or constrain the abilities of individuals to engage in healthful behaviors (Hunt et al., 2004). Therefore, policy changes championed by the Dean and CVM Counseling Services would ensure a more health promoting culture at the CVM. For example, all students could be offered two mental health days per semester. In order to take advantage of these days, students and faculty would be required to complete a 20-minute professional communication and courtesy training module in Canvas. Finally, a policy to require a three- to five-minute physical activity break for every 60 minutes of class time could be instituted.

Chapter 2- K-State Research and Extension of Riley County

Literature Review

Food insecurity is a national concern. According to the United States Department of Agriculture (2020), food security runs along a spectrum from very low to high. Low food security is the reduced quality and variety of food within a diet with little to no reduction of overall food consumption. Very low food security is the reduced quantity in food that leads to disrupted eating patterns and overall reduced food consumption. Very low food security is often associated with hunger (United States Department of Agriculture (USDA), 2020). In 2018, nearly 37 million Americans experienced food insecurity, either low or very low food security (Map the Meal Gap, 2018a).

Individuals experiencing food insecurity are at greater risk for negative health outcomes. During bouts of food insecurity, food intake and dietary variety decrease, while the consumption of energy dense food increases (Seligman et al., 2010). A systematic review conducted by Darmon and Drewnowski (2015) examined the influence of food and diet cost on socioeconomic differences in diet quality, and found that energy dense foods such as refined grains are often more affordable than fruits and vegetables, therefore individuals experiencing food insecurity consume fewer micronutrients and more calories. A high calorie diet may contribute to the growing problem of the double burden of obesity and malnutrition seen in the United States (Darmon & Drewnowski, 2015). According to a position paper published by the Academy of Nutrition and Dietetics, adults experiencing food insecurity are more likely to develop chronic diseases such as coronary heart disease, stroke, cancer, and diabetes among others (Holben & Marshall, 2017). Some studies also indicate that adults experiencing food insecurity are at greater risk of engaging in negative health behaviors including smoking and binge drinking (Holben & Marshall, 2017; Larson et al., 2020). Food insecurity among older adults increases the risk of chronic diseases as well as disability (Holben & Marshall, 2017). Children subjected to food insecurity are also likely to suffer, and are at greater risk of developing asthma, anxiety, and depression (Holben & Marshall, 2017). Children from food insecure households are also less likely to achieve academically and are less likely to be physically active (Holben & Marshall, 2017; To et al., 2014).

Poverty is a strong predictor of food insecurity. Food insecurity is an economic and social condition of limited access to food (USDA, 2020). According to the United States Census

Bureau, 34 million Americans were living in poverty in 2019, approximately 10.5% of the population (Semega et al., 2020). Poverty is not equally distributed in the United States. Historically, individuals under the age of 25 and over the age of 65, women, and people of color experience higher poverty levels than the rest of the United States' population (Creamer, 2020; Semega et al., 2020). Thus, these groups form the largest portions of Americans experiencing food insecurity (Coleman-Jenson et al., 2017).

Riley County, Kansas tends to have rates of poverty and food insecurity that are higher than the national average. In 2018, 21.6% of Riley County residents lived in poverty, of whom 33% were between the ages of 18 to 24, and most of them women (Data USA, n.d.). With three colleges located in Riley County and the plethora of lower paying jobs catering to the college-aged population, the community is at greater risk for experiencing food insecurity. For instance, K-State students experience slightly higher rates of food insecurity, at 39.4%, compared to the national average for food insecurity among college students, which is ~36% (Cats' Cupboard, 2018). With a proactive community, Riley County food insecurity had been trending downward, improving five percent from 17.9% in 2016 to 12.9% in 2018 (Map the Meal Gap, 2018b). However, with the ensuing COVID-19 pandemic, food security has been on the rise. Feeding America projects that the 2020 food insecurity rate in Riley County will have increased to 15.8% (Feeding America, 2020).

Agency Description

K-State Research and Extension is a complex network of educators dedicated to improving the lives of Kansans. K-State Research and Extension partners with K-State and the county, state, and national governments to provide unbiased, research-based information pertinent to Kansas (K-State Research and Extension (KSRE), 2021a). The statewide organization is currently working to address five “grand challenges:” global food systems, water, health, developing tomorrow's leaders, and community vitality (KSRE, 2021a). In doing so, K-State Research and Extension provides numerous services to Kansans, including services related to adult development and aging, family resource management, community development, horticulture, crop and livestock production, and nutrition, food safety, and health (KSRE, 2021a).

K-State Research and Extension of Riley County is located at the Courthouse Plaza in downtown Manhattan, KS. K-State Research and Extension of Riley County serves the cities of Manhattan, Leonardville, Ogden, Randolph, and Riley. Four extension agents serve under the

County Extension Director, Mr. Gary Fike, including my preceptor, Megan Dougherty. Ms. Dougherty is the Nutrition, Health, and Food Safety Agent, and is responsible for several health-related programs. She promotes healthy food consumption and physical activity habits through health education and promotion programs that are realistic, flexible, and sensible (KSRE, 2021b). She focuses on assisting community members to build healthy, positive relationships (KSRE, 2020). She also promotes financial well-being through resource management education and Medicare consultations (KSRE, 2020).

Learning Objectives and Expectations

- Connect with community professionals and gain experience working on interprofessional teams
- Explore the variety of programs offered by K-State Research and Extension
- Understand the innerworkings of policy, initiatives, and funding that influence program development and implementation

Project Description

My experience with K-State Research and Extension was designed to supplement my experience at CVM Counseling Services. At K-State Research and Extension I was more actively involved in the implementation of projects already established rather than the planning of new projects. I attended numerous meetings where potential ideas for several on-going projects were discussed. K-State Research and Extension also provided a great opportunity to work on interprofessional teams and to network with the helping professions in Riley County.

My time with K-State Research and Extension was split between a variety of community programs and initiatives. I composed articles for the educational portal on nourishtogether.org, the webpage for the Food and Farm Council (FFC) of Riley County and Manhattan, Kansas. I worked with 4-H for both their biannual garage sale, and preparation for the Riley County Fair. I assisted with the Manhattan school gardening programs and attended several meetings and lectures including Medicare meetings, the Executive Board meeting, and the Living Well Together Series. However, I spent most of my time assisting with Kitchen Restore. Kitchen Restore is an initiative of the FFC, dedicated to providing low-income community members with kitchen essentials as well as the skillset to utilize them. The community of Riley County has several groups devoted to decreasing food insecurity. However, the FFC observed that

community members in need of food are often lacking the necessary equipment to safely prepare it.

Kitchen Restore

The FFC was established in 2018 to advocate for and sustain an accessible and healthful local food system within the community (Food and Farm Council of Riley County & Manhattan, KS (FFC), 2020). The FFC has four goals for establishing food security, preventing food waste, and providing nutrition education (FFC, 2020). First, the council plans to improve food system communication, education, and policy (FFC, 2020). Unfortunately, policy does not always incentivize the healthful options (Laska et al., 2018). Second, the FFC intends to improve local food availability, accessibility, and affordability (FFC, 2020). Barriers associated with the cost of food, as well as transportation time can influence healthful food consumption. Third, the council aims to support gardening and food preparation education (FFC, 2020). Many have access to nutrition information, but education does not necessarily translate into behavior change. Last, the FFC hopes to reduce the occurrence of chronic illnesses such as diabetes, cancer, heart disease, and obesity, all of which are greatly influenced by diet and other lifestyle behaviors (FFC, 2020). To assist with goal attainment, the FFC developed several Community Action Teams. My preceptor, Ms. Dougherty, and I have been assisting with the Education Community Action Team.

Kitchen Restore collects money and gently used or new kitchen items to create “starter kits.” These starter kits contain essential food preparation items and utensils. For example, all kits contain pots and pans, baking dishes, spatulas, measuring spoons, plates, potholders, and other items. Kitchen Restore also has an Amazon Wishlist where a new kit can be purchased for about \$100. Used donations are sorted to ensure that they are essential items, as well as to verify their condition. If used items do not meet quality standards, they are either donated to Goodwill or discarded. Donated items that are not deemed essential, are also taken to Goodwill in Manhattan. Ms. Dougherty and I have spent several hours outside of group workdays sorting donations and dropping off loads of kitchenware to Goodwill. In some cases, high-end donated items that are not essential for making starter kits are sold. For example, a generous donor gave Kitchen Restore nearly 100 pieces of Polish pottery. My preceptor and I, along with an additional volunteer, photographed the pottery to post on Facebook Marketplace. Money

collected from sales such as these goes back to Kitchen Restore for purchasing more essential starter kit items.

In some instances, large donations are made. The family of a donor who passed away in January offered for Kitchen Restore to collect his kitchen items. While this was a wonderful opportunity, it was quite the daunting task. Kitchen Restore volunteers took several hours to clear out the donor's kitchen. The donor was a cooking enthusiast with hundreds of items, most of which were used for kits or sold to provide funding for kits. However, some items were not usable and had to be donated. Therefore, the Kitchen Restore team is discussing ways to handle similar situations in the future. Current plans include a small fee for clearing out entire kitchens. The fee would be commensurate with the amount of time required for volunteers to do the work required. Another option would forego a fee and have Kitchen Restore volunteers take only items that Kitchen Restore could use. All remaining items would be left for the individual to dispose of as they chose. Therefore, Kitchen Restore is planning to partner with rental and moving companies, as well as senior care facilities to collect donations. Many renters leave behind unwanted items, and those entering care facilities must downsize. There is certainly an opportunity for mutual benefit.

All items kept for kits are organized by type and stored in preparation for packaging. The Salvation Army has partnered with Kitchen Restore to supply storage and sorting space for donations, including offering space in a shed at their Manhattan location. Starter kits are assembled twice per month, the second Thursday and fourth Friday. During a normal workday, the Kitchen Restore team and myself washed dirty kitchenware, wrapped breakable kitchen items, paired items for sets, and then attempted to configure all of the oddly shaped components into a box. Once kits were completed, they were moved to the Kitchen Restore storage unit which was also donated. Kitchen Restore does not work directly with clients. Partner organizations that screen clients based on the organization's criteria can complete an online request form to receive kits. A Kitchen Restore volunteer then delivers the kits to the partner organization where kits are then distributed by the partner organization to their client, allowing them to remain anonymous. Partner organizations include the Salvation Army, Manhattan Emergency Shelter, Pawnee Mental Health, Shepherd's Crossing, F.I.T. Closet, Job Corps, House of Hope, WIC, and local school districts.

The FFC aims to connect Kitchen Restore kit recipients with local growers. Current plans include providing those receiving each kit with a \$25 produce voucher redeemable at the Manhattan Downtown Farmers Market. Larger households receiving kits may receive up to two vouchers per kit. The Manhattan Downtown Farmers Market provides the vouchers through a grant received from the Greater Manhattan Community Foundation. The grant is intended to increase fruit and vegetable consumption among low-income residents. Recipients have approximately four weeks, or four Saturday markets, in which to redeem the voucher from the time of kit distribution. The voucher does not have to be used all at once, and can be used over the course of the four weeks. The Market tracks the use of the vouchers, voiding those that have not been redeemed in the allotted time, to allow more vouchers to be distributed.

To supplement the vouchers, the Education Community Action Team is considering providing a deck of produce cards for each kit recipient. Each card would highlight a fruit or vegetable commonly sold at the Market, and would describe ways to prepare and store it. The Education Community Action Team also received a grant to make four mobile kitchens for in-person cooking demonstrations. In the past year, all food skills classes have been held online via Zoom. However, K-State Research and Extension is looking forward to in-person classes in the upcoming months to accommodate hands-on learning. As Warin (2018) discusses, knowledge is found in skill rather than information. For example, reading a recipe does not necessarily mean that the individual will understand how to prepare the meal. Rather, experience performing the skill will likely make the task more feasible (Warin, 2018). Aside from the electric skillet, the mobile kitchens contain basic kitchenware similar to kitchenware provided in Kitchen Restore starter kits. Therefore, K-State Research and Extension is hoping to provide food skills courses for Kitchen Restore kit recipients to help familiarize them with their new tools.

Nourishtogether.org

During 2020, the FFC developed the nourishtogether.org website to better serve the community. The website provides a brief explanation of the FFC, including introducing its city- and county-appointed community members, identifying its primary areas of concern, and their related goals. Nourishtogether.org also provides its patrons the opportunity to connect with the community food system. On the main page, patrons can select whether they wish to donate food or money, volunteer, purchase local foods, or if they need information or food. Each tab provides a short description of local organizations, as well as their website links and immediate contact

information. For example, if I were interested in opportunities to volunteer, organizations such as Cats' Cupboard, Common Table, Ogden Friendship House, and several others would appear. From there, I would be able to investigate their webpages and contact a volunteer coordinator. The buy local tab is linked to a PDF of all local businesses in Manhattan related to the food system. The PDF includes producers, markets, and restaurants that locals may not be aware of. Nourishtogether.org also has an impact tracker. The tracker allows patrons to see in real time how many local food system partners are collaborating on projects, the number of Konza Student Table meals that have been supplied, and the number of blessing boxes operating in Riley County. Blessing boxes are small outdoor food pantries located strategically throughout the community, and are available day and night. Finally, the website has an education portal titled "Recipes & more." This section has seven educational categories: eating on a budget, quick recipes, cooking with kids, keep it safe, everything produce, gardening tips, and composting and recycling. Articles are written in blog-style to keep them simple, friendly, and engaging. The goal is to provide easily accessible and reliable information.

Articles are submitted to Ms. Dougherty and Sharolyn Flaming Jackson MS, both agents at K-State Research and Extension, by qualified contributors who have some degree of field experience or expertise related to the article topic. If a partner has a topic idea, but does not have the expertise to write the article, the idea can also be submitted. Likewise, a partner can also suggest a qualified contributor. I was given the opportunity to write a few articles for nourishtogether.org. Both articles can be found in Appendix G. My first article titled, *Affordable and Versatile Kitchen Staples*, introduced three healthful ingredients that are often affordable and can be used in a variety of meals and snacks. My second article titled, *Safe Food Storage*, highlighted a few safe cold and cupboard food storage recommendations, which were explained in greater detail in two educational documents created by K-State Research and Extension staff. A link to PDF versions of the educational documents were embedded in the article. The first document, titled "Safe Food Storage: The Refrigerator and Freezer," has detailed storage information for several food categories including pastas, pastries, dairy, fruits, vegetables, baby foods, and proteins. It provides consumption timelines, ideal temperature ranges, and specific helpful tips. The article also explains the different meanings behind packaging dates, such as "sell by" and "use by." The second document, titled "Safe Food Storage: The Cupboard," offers similar information regarding baking essentials, spices and herbs, and canned, dried, and

packaged foods. As Young and Waddell (2016) found in their systematic review, consumers often rely on personal experience for food safety. Unfortunately, the literature indicates that most sporadic cases of foodborne illnesses occur at home (Young & Waddell, 2016). Therefore, the blog article was used to highlight key information in the educational documents, as well as promote the use of both educational documents.

4-H Garage Sale

I played a small role in assisting the Riley County 4-H program with their initiatives. I attended the Riley County Fair Board meetings that included discussions regarding how 4-H exhibits would be judged efficiently, and the logistics of showing livestock. I also assisted with the 4-H garage sales that benefit the Citizen Washington Focus trip.

The Citizen Washington Focus Initiative is a 4-H leadership and civic service program for high school youth ages 14 and older. Riley, Wabaunsee, and Pottawatomie County 4-H'ers have the opportunity to participate as conference delegates. Once delegates fulfill the requirements designated by their prospective county 4-H programs, they attend the Citizen Washington Focus trip which occurs once every three years. As part of the requirements, 4-H'ers must complete 50 hours of community service, as well as fundraise for the trip. To assist with both requirements, the 4-H agents collaborate for a massive garage sale at the Riley County Fair Grounds Cattle Barn twice each year, once in the Spring and once in the Fall. Anyone can donate to the garage sale. Information about the garage sale is usually posted on the K-State Research and Extension website, and flyers are distributed around each county. The Fall 2020 sale had so many items left behind that K-State Research and Extension decided to host two miniature 4-H garage sales in the Spring of 2021. Ms. Dougherty and I worked at the February sale. In exchange for our assistance, we were able to collect some items for Kitchen Restore such as coffee pots and Tupperware.

Medicare Counseling

Individuals in Riley County are eligible for a free Medicare consultation from the Manhattan Senior Center, the Area Agency on Aging, and K-State Research and Extension. People who are 65 years and older, individuals with certain disabilities, and people in end-stage renal disease are eligible to apply for Medicare (United States Department of Health and Human Services (HHS), n.d.). Individuals who have worked a minimum of 40 quarters are eligible for premium-free Medicare Part A. An individual who has worked and paid Medicare taxes for at

least 10 years is likely to have accumulated their 40 quarters (HHS, n.d.). In short, Medicare Part A covers hospital and skilled nursing facility stays, and home health hospice care.

Medicare enrollment is confusing and can be quite stressful especially when selecting supplements. Ms. Dougherty counsels clients regarding Medicare Parts B and D, to assist their understanding of these supplements. These supplements require premiums, and offer varying levels of coverage depending on contracts with providers and pharmacies. For instance, the cholesterol medication, Lovastatin, may cost significantly less at Dillon's pharmacies compared to Walgreen's pharmacies. From my experience attending Medicare meetings, I have a better understanding of the heterogeneity in Medicare pricing. I would encourage all individuals who are eligible for Medicare to seek counseling prior to enrollment, to ensure they are receiving the coverage that they need at a price they can afford.

Results

Kitchen Restore results consist of an interview with Ms. Dougherty. A summary of the eight-question interview is included here, while the complete transcript can be found in Appendix H. Ms. Dougherty explained that the need for Kitchen Restore was identified by the FFC. They began noticing that younger generations were lacking food skills. When investigating the opportunities available to teach the essential skills, they discovered that most individuals did not have the equipment necessary to learn. Therefore, the initial intent of Kitchen Restore included providing both kitchenware, and nutrition education and cooking classes. Kitchen Restore launched at the start of the COVID-19 pandemic, which reduced its ability to provide a hands-on class experience. The first year of the Kitchen Restore program was devoted to streamlining the service. The program first began offering personalized kits and accepted a variety of donations. Now the program offers a standardized kit and provides a list of acceptable donations to community members. Lastly, program success is measured by the development of partnerships and feedback from those partners regarding their client's experiences. Kitchen Restore is also loosely tracking the number of kits distributed, which is currently estimated at 100 kits since the inception of the program.

Discussion

Traditional health education programming operates with the information deficit model in which it is assumed that people lack the knowledge about how to live healthy lives and once educated, people will act in their best interests (Pine & Fletcher, 2014). However, interventions

based on information dissemination and teaching skills alone do not often lead to behavior change (Contento, 2008). This knowledge-behavior gap is influenced by numerous individual, social, and environmental factors. For example, Kitchen Restore clients may know that vegetables are healthier snacks compared to chips. However, fresh vegetables can be expensive and can spoil quickly if stored improperly. Therefore, the more effective interventions are those that focus on behavior change grounded in theory, and target factors at and beyond the individual level (Contento, 2008). As Contento (2007) explains, nutrition education is any combination of educational strategies that are accompanied by environmental supports to change dietary behaviors (Contento, 2007).

Kitchen Restore is not a stand-alone health education program. However, it serves an assisting role for adapting home environments to assist in behavior change. K-State Research and Extension has been offering nutrition education and cooking classes for decades. Historically these nutrition education and cooking classes have been held under ideal circumstances with all of the necessary cooking equipment and ingredients. However, the cooking experience may look very different in home kitchens (Warin, 2018). Providing clients with kitchen starter kits may not make their cooking experience ideal, but could serve to close the gap between the current circumstances and the ideal.

The ultimate goal of the nutrition education and cooking classes is to improve the dietary intake of Riley County community members. Current research shows that cooking classes have the potential to support positive changes in dietary intake behaviors and associated health outcomes. A systematic review performed by Reicks and colleagues (2014) analyzed 28 studies to determine the effects of cooking classes on dietary intake, food skills and knowledge, cooking attitudes and self-efficacy, and health outcomes. Fifteen of the 28 studies evaluating dietary intake indicated improved intake of various nutrients and food groups following participation in cooking classes (Reicks et al., 2014). For example, a healthy eating class for men with prostate cancer showed a significant increase in the consumption of vegetable proteins and reductions in the consumption of saturated fats (Carmody et al., 2008). Three of the 28 studies investigating the effects of cooking classes on food skills and knowledge found significant improvements in participants' food skills and knowledge following participation in cooking classes (Reicks et al., 2014). Also, four of the 28 studies examining the effects of cooking classes on health outcomes indicated improvements in disease parameters such as blood pressure and serum cholesterol

(Reicks et al., 2014). Therefore, cooking classes may improve the dietary intake of Riley County residents, especially if the residents have the necessary cooking equipment.

Several studies indicate that meals prepared at home are more nutritious than meals prepared outside the home (Mills et al., 2017; Tiwari et al., 2017; Wolfson & Bleich, 2014). The Seattle Obesity Study used interviews and Food Frequency Questionnaires to investigate differences in Healthy Eating Index scores for meals prepared at home versus away (Tiwari et al., 2017). The researchers found that cooking at home was strongly associated with a higher Healthy Eating Index score (Tiwari et al., 2017). Meals prepared at home contained fewer calories, sugar, and fat (Tiwari et al., 2017). Also, a cross-sectional study showed that household cooking frequency was associated with consumption of fewer calories, carbohydrates, fat, and sugar (Wolfson & Bleich, 2014). Another cross-sectional study indicated that individuals who ate more meals at home were more likely to adhere to diets higher in fruits and vegetables (Mills et al., 2017). Kitchen Restore, in combination with nutrition education and cooking classes, has the potential to help community members limit the consumption of meals prepared outside the home by increasing the capacity of participants for preparing meals and thereby increasing the consumption of meals prepared inside the home.

More frequent consumption of meals prepared at home may lead to the reduction of chronic diseases such as diabetes, cancer, heart disease, and obesity in Riley County. According to a position paper published by the Academy of Nutrition and Dietetics, nutritional status influences the development and prevention of chronic disease (Holben & Marshall, 2017). For instance, a randomized controlled trial investigating the effectiveness of individualized nutrition counseling in patients with colorectal cancer found that patients maintaining adequate nutrition status reported higher quality of life scores and were more likely to survive six years post diagnosis (Ravasco et al., 2012).

If Kitchen Restore provides the necessary kitchenware and K-State Research and Extension provides nutrition education and cooking classes, clients may prepare more meals at home, ultimately leading to a decline in chronic disease in Riley County. However, the FFC and K-State Research and Extension are not currently investigating the effects of Kitchen Restore. It is not possible to identify if this ideal domino effect occurs, but measures can be taken to better understand the effects of Kitchen Restore on Riley County residents.

As previously mentioned, Kitchen Restore clients have the option to participate in nutrition education and cooking classes provided by K-State Research and Extension. A potential process evaluation measure would be to track the number of clients who sign up to participate, and then determine how many actually do participate in nutrition education and cooking classes. K-State Research and Extension can then assess nutrition education and cooking class impact by requiring participants to complete a pre- and post-class Food Frequency Questionnaire. Food Frequency Questionnaires can be tailored to the target population, are feasible for low-literacy populations, and are not overly burdensome to staff and participants (Beechy et al., 2012). K-State Research and Extension could also assess the number of meals participants prepare at home from pre- to post-class. A short survey assessing the number of meals prepared at home, as well as intentions and self-efficacy to prepare meals would be particularly useful impact evaluation measures. The FFC could also include the survey with the initial paperwork at kit delivery, then request contact information such as email, phone number, or address for a follow-up survey two to four weeks later. An additional survey measuring the usefulness of the starter kit may also be helpful. For instance, the survey may ask clients about which kit items were most useful, or which kit items that they need more of. To protect anonymity, partner organizations may also distribute both surveys including a stamp and pre-addressed envelope, to clients who do not complete nutrition education and cooking classes offered by K-State Research and Extension. Outcome evaluation would be significantly more difficult. Population level data can indicate the prevalence of chronic diseases in Riley County. However, to link Kitchen Restore to decreases in chronic disease, a prospective cohort study in which subjects self-report their chronic diseases and morbidities, would need to be performed.

Chapter 3- Conclusion

Each program, Well Vets Well Pets and Kitchen Restore, provided an opportunity to apply MPH coursework and current literature specifically associated with health behavior change and program planning. Many lessons were learned throughout the process. First, target population involvement and community partnerships are paramount when developing an effective intervention program. Not only does involvement boost program participation and quality, it also enhances program longevity. Next, collaboration between interdisciplinary professionals is likely to enrich program depth and participant experience as all have different perspectives in search of a common goal. Transparent communication between partners is needed to safeguard a strong working relationship. Also, when planning an intervention, it is best to consider the process, impact, and outcome evaluations. Working backward from established goals and objectives helps planners to maintain focus and keep from getting lost in the details. Lastly, implementation will encounter barriers. Planners should adapt when possible, then make note of how the program was altered. Health promotion programs are learning experiences for all involved. It is not only acceptable, but ideal to continually reappraise programs with a critical eye.

Chapter 4- Competencies

Student Attainment of MPH Foundational Competencies

Table 5.2 Summary of MPH Foundational Competencies

Number and Competency		Description
7	Assess population needs, assets and capacities that affect communities' health.	As part of the well-being program developed through CVM Counseling Services, we assessed student needs with an initial survey, reviewed literature including studies performed by Dr. Hafen and Dr. Drake that utilized K-State veterinary students, assessed potential virtual platforms to accommodate for COVID-19 restrictions, and sought assistance from a variety of professionals within the community.
9	Design a population-based policy, program, project or intervention.	I developed and presented a variety of physical activity, nutrition, and stress management components for the well-being program for CVM Counseling Services. The program was altered on numerous occasions in order to accommodate for varying COVID-19 restrictions.
11	Select methods to evaluate public health programs.	The well-being program for CVM Counseling Services was to be evaluated based on a comparison of pre- and post-intervention survey data. The surveys were adapted to include three physical activity specific questions that I designed. I also selected process evaluation criteria.
13	Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes.	The well-being program for CVM Counseling Services sought assistance from numerous community stakeholders to implement program components. I was able to act as a liaison between CVM Counseling Services and other departments at K-State.
16	Apply principles of leadership, governance and management, which include creating a vision, empowering others, fostering collaboration and guiding decision making.	I played a significant role with the development of the physical activity promotion portion of the well-being program for CVM Counseling Services. I also advocated for "Movement Minutes." Lastly, I conducted personal consultations with students to assist them in developing a plan to incorporate physical activity into their week.

19	Communicate audience-appropriate public health content, both in writing and through oral presentation.	I presented new ideas for the well-being program with CVM Counseling Services to Dr. Hafen and Dr. Drake. With my work at K-State Research and Extension, I wrote two blog-style articles for the FFC website targeting the Manhattan community.
21	Perform effectively on interprofessional teams.	I collaborated with mental health and administrative professionals at CVM Counseling Services to develop the Well Vets Well Pets program. During my time at K-State Research and Extension, I worked on the Kitchen Restore project with a variety of different professionals. I also assisted multiple agents with varying backgrounds and roles.

Competencies Explained

Competency 7-

As part of the well-being program developed through CVM Counseling Services, we assessed student needs with an initial survey, reviewed literature including studies performed by Dr. Hafen and Dr. Drake that included K-State veterinary students, assessed potential virtual platforms to accommodate for COVID-19 restrictions, and sought assistance from a variety of professionals within the community. The initial survey had been used by CVM counseling services previously, but was altered to include three questions I created to assess students' perceived physical activity barriers and needs. I also performed a literature review of relevant research articles investigating mental health in both veterinary students and practicing veterinarians. Multiple platforms were investigated for program use including Canvas, CVM intranet, Facebook, and Instagram. Ultimately, Facebook was chosen as the program platform, with advertisements supported via Instagram. The CVM intranet was used to archive program materials for students to view later. Lastly, the program sought assistance for many activities. I assisted with a search for local personal trainers for the "HIIT Weekly Workouts" and the "Personal Trainer Tips." I also communicated with the Department of Kinesiology and Department of Human, Nutrition, Dietetics, and Health to find professors and doctoral students willing and available to present on wellness topics proposed by the Dean of the CVM.

I devised a plan to host focus groups for the previous year's class officers over Zoom. Class officers would have the opportunity to advocate for their classmates, as well as share concerns and ideas. I chose a focus group specifically because programs historically have the best participation and longevity with health promotion programs when the target population is more involved (Durlak & DuPre, 2008). The contingency plan was to meet individually via Zoom or phone call for interviews with the class officers. I also developed two needs assessment survey drafts. The goal of the survey was to determine students' needs, as well as gather information about ideal timing and implementation of program components. Both the focus groups/interviews and the survey were omitted to minimize student stress and save time.

Competency 9-

I developed and presented a variety of physical activity, nutrition, and stress management components for the well-being program for CVM Counseling Services. I first identified three themes to inform the activities: social support, time management, and stress management. Social support was chosen to build healthy habits with the support of cohort comradery. A systematic review performed by Eime and colleagues (2013) suggests that physical activity involving social engagement promotes mental as well as social health through connectedness, peer bonding, and improved self-esteem (Eime et al., 2013). The time required for completion of activities is extremely important with consideration for school, work, and family needs. The program focused on reducing stress through mindfulness, healthy nutrition, and physical activity. Physical activity was to be marketed with proximal outcomes such stress management and revitalization, rather than distal outcomes such as health and fitness goals, because research indicates that proximal outcomes are more effective than distal outcomes when promoting physical activity (Mailey et al., 2018). Program development included multiple iterations in order to accommodate rapidly changing COVID-19 restrictions. As such, CVM Counseling Services chose not to incorporate the nutrition components in the intervention. Physical activity and stress management components were modified to comply with safety precautions. Therefore, all activities were shared virtually via Facebook.

Competency 11-

The well-being program for CVM Counseling Services was to be evaluated based on a comparison of pre- and post-intervention survey data. The survey was used previously by CVM Counseling Services for a number of studies. However, it was adapted to include three physical

activity specific questions that I designed. The three questions assessed students' perceived physical activity barriers and needs. Unfortunately, the post-intervention survey was not administered due to challenges associated with the COVID-19 pandemic. Currently, the three physical activity questions I developed are the only data available for evaluation. The program will be offered again during the Spring 2021 semester, and all components will be analyzed. I also selected process evaluation criteria to guide implementation of the program. However, the process evaluation was not used.

Competency 13-

The well-being program for CVM Counseling Services sought assistance from numerous community stakeholders to implement program components. The program included four presentations from K-State professors, instructors, and doctoral students for the “Expert Tips and Tricks” activity. I contacted numerous professors from multiple departments on behalf of CVM Counseling Services and suggested potential topics pertinent to the veterinary student population. I chose three of the four speakers used for the program. I provided CVM Counseling Services with introductory material for each speaker, which included information such as educational background and areas of interest. For the Spring 2021 semester, I compiled a list of other professors who may be willing to speak about mental health, physical activity, or nutrition. Lastly, I identified potential personal trainers within the community to participate in the “Personal Trainer Tips” and “HIIT Weekly Workout” physical activities. The personal trainers I communicated with were K-State graduates with a vested interest in promoting health and fitness among current students, several of whom were already offering student discounts at their businesses.

Competency 16-

I played a significant role in the development of the physical activity promotion portion of the well-being program for CVM Counseling Services. I began the dialogue between myself and CVM Counseling Services for the creation of physical activity components, as well as stress management and nutrition components. CVM Counseling Services was able to generate ideas based on those that I proposed. Together, the current program was developed. I also advocated for the “Movement Minutes” physical activity component in order to better promote physical activity to students who may not have as much time, or interest in exercise. The goal was to get students moving in whatever way suited them best in order to decrease mental health concerns.

Lastly, I conducted personal consultations with students to assist them in developing a plan to incorporate physical activity into their week. In collaboration with the PAIR lab, I developed a physical activity planning worksheet for the Fall 2020 programming. I met with students for 10 to 15 minutes to offer support and guidance as they completed the worksheet. For some, I was able to provide links to community resources that aligned with their interests. For example, Bike MHK cycling groups and the Manhattan Running Company running groups were aligned with students who wanted to go on bike rides or runs with others. I also introduced a time-management log at the conclusion of my work with CVM Counseling Services, which was also developed in collaboration with the PAIR lab. This log may be used in future programming.

Competency 19-

At the completion of my experience with CVM Counseling Services, I presented potential program changes to better address needs identified by students. The feedback obtained from the open-ended questions about physical activity identified three constructs that would be ideal targets for future interventions: self-efficacy, social support, and culture. My final presentation focused on these three constructs and included relevant supportive peer-reviewed references.

In my work at K-State Research and Extension, I wrote two blog-style articles for the Food and Farm Council website, nourishtogether.org. The articles reflected two of seven educational categories on the nourishtogether.org website. The first article identified three affordable foods that were versatile enough to include in breakfast, lunch, and dinner meals, as well as snacks. The second article addressed safe food storage methods. This article was guided by and used to promote two educational documents created by K-State Research and Extension staff. The articles were written in a simple, friendly, and engaging tone to appeal to the general Manhattan community.

Competency 21-

While working on the Well Vets Well Pets program, I collaborated with mental health and administrative professionals. Everyone brought a unique perspective regarding how physical activity could and should be used to improve mental health. There was opportunity for myself and CVM Counseling Services to learn from each other. For instance, I was able to expand the definition of physical activity beyond leisure-time activity, and CVM Counseling Services was

able to address mental health stigma. Also, while working with CVM Counseling Services, I was able to engage with potential speakers from varying academic departments.

During my time at K-State Research and Extension, I worked on the Kitchen Restore project. A variety of professions were represented on the Kitchen Restore team including health science professors, home economics teachers, registered dietitians, and health educators. I assisted multiple K-State Research and Extension agents on projects with similar goals. For instance, I assisted the 4-H agent with fundraising, and helped the horticulture agent with the Manhattan area school gardening program. Lastly, I also had the opportunity to participate in several meetings for the Flint Hills Wellness Coalition, Food and Farm Council, Education Community Action Team, Riley County Fair Board, and Executive Board. All of these are diverse groups working to address the five grand challenges identified by K-State Research and Extension.

Table 5.2 MPH Foundational Competencies and Corresponding Courses

22 Public Health Foundational Competencies Course Mapping	MPH 701	MPH 720	MPH 754	MPH 802	MPH 818
Evidence-based Approaches to Public Health					
1. Apply epidemiological methods to the breadth of settings and situations in public health practice	x		x		
2. Select quantitative and qualitative data collection methods appropriate for a given public health context	x	x	x		
3. Analyze quantitative and qualitative data using biostatistics, informatics, computer-based programming and software, as appropriate	x	x	x		
4. Interpret results of data analysis for public health research, policy or practice	x		x		
Public Health and Health Care Systems					
5. Compare the organization, structure and function of health care, public health and regulatory systems across national and international settings		x			
6. Discuss the means by which structural bias, social inequities and racism undermine health and create challenges to achieving health equity at organizational, community and societal levels					x
Planning and Management to Promote Health					
7. Assess population needs, assets and capacities that affect communities' health		x		x	

22 Public Health Foundational Competencies Course Mapping	MPH 701	MPH 720	MPH 754	MPH 802	MPH 818
8. Apply awareness of cultural values and practices to the design or implementation of public health policies or programs					x
9. Design a population-based policy, program, project or intervention			x		
10. Explain basic principles and tools of budget and resource management		x	x		
11. Select methods to evaluate public health programs	x	x	x		
Policy in Public Health					
12. Discuss multiple dimensions of the policy-making process, including the roles of ethics and evidence		x	x	x	
13. Propose strategies to identify stakeholders and build coalitions and partnerships for influencing public health outcomes		x		x	
14. Advocate for political, social or economic policies and programs that will improve health in diverse populations		x			x
15. Evaluate policies for their impact on public health and health equity		x		x	
Leadership					
16. Apply principles of leadership, governance and management, which include creating a vision, empowering others, fostering collaboration and guiding decision making		x			x
17. Apply negotiation and mediation skills to address organizational or community challenges		x			
Communication					
18. Select communication strategies for different audiences and sectors	DMP 815, FNDH 880 or KIN 796				
19. Communicate audience-appropriate public health content, both in writing and through oral presentation	DMP 815, FNDH 880 or KIN 796				
20. Describe the importance of cultural competence in communicating public health content		x			x
Interprofessional Practice					
21. Perform effectively on interprofessional teams		x			x
Systems Thinking					
22. Apply systems thinking tools to a public health issue			x	x	

Student Attainment of MPH Emphasis Area Competencies

Table 5.3 Summary of MPH Emphasis Area Competencies

MPH Emphasis Area: Physical Activity		
Number and Competency		Description
1	Population health	Investigate the impact of physical activity on population health and disease outcomes.
2	Social, behavioral, and environmental influences	Investigate social, behavioral, and environmental factors that contribute to participation in physical activity.
3	Theory application	Examine and select social and behavioral theories and frameworks for physical activity programs in community settings.
4	Developing and evaluating physical activities interventions	Develop and evaluate physical activity interventions in diverse community settings.
5	Support evidence-based practices	Create evidence-based strategies to promote physical activity and communicate them to community stakeholders.

Competencies Explained

Competency 1-

Dr. Heinrich exposed my KIN 616 class to numerous peer-reviewed research articles describing the relationship between physical activity and obesity. While the primary disease focus was obesity, we explored its relationship with health-related outcomes in a variety of populations. We discussed the ideal combinations of physical activity and nutrition interventions for specific health outcomes. This included an investigation into the different forms of physical activity and their impacts on weight status, body composition, and disease status.

KIN 805 taught by Dr. Emily Mailey, focused on individual factors that influence physical activity behavior such as motivation, self-efficacy, and outcome expectations. Current peer-reviewed research indicates that physical activity can influence proximal mental health outcomes including stress reduction and revitalization. KIN 805 greatly reinforced the importance of incorporating physical activity into our daily lives, especially when having taken this course during the COVID-19 pandemic, which negatively affected the mental health of many Americans.

Competency 2-

Dr. Gina Besenyi discussed a variety of environmental factors that influence physical activity behavior in KIN 612. For instance, she introduced my class to the positive impact active transportation, parks, trails, and recreational facilities may have on physical activity behavior. Mental health benefits were also discussed in regard to physical activity promotion and exposure to nature. I also performed the Active Neighborhood Checklist to assess land use and street level features that influence physical activity behavior in my community. And, I actively debated how policy can inhibit or promote physical activity within the constructs of several Social Ecological Models of health promotion.

KIN 616 described how obesity, like other conditions, has many contributors. Completing the cognitive map of obesity was a pivotal moment in my academic career in which I was able to connect coursework from a variety of courses into a single product. Health behaviors such as dietary habits, and physical activity and sedentary behavior are influenced on every level of the Social Ecological Model. I was able to compile dozens of resources describing the influence of those contributors on behavior, and ultimately health outcomes such as obesity. For instance, genetics, personal skills, the education system, urban design, and stigma can influence an individual's behavior. Personal responsibility, while important, is not the single driving force behind behavior.

In MPH 818, Dr. Mary McElroy focused heavily on health disparities and the Social Determinants of Health that influence them. The conditions in which we are born, live, and work greatly influence health outcomes. For instance, the greatest indicator of health in the United States is income. Individuals in the lower socio-economic classes encounter obstacles such as lack of affordable housing, nutritious food, safety, and much more. Also, African American and Hispanic populations are at greater risk for poverty and poor health-related outcomes. They are less likely to engage in physical activity due to unsafe neighborhoods, inadequate nutrition, and chronic stress. This knowledge will greatly influence my decisions when working with diverse populations in my future career.

Competency 3-

All courses in the MPH program's physical activity emphasis area are grounded in theory. For instance, in KIN 610, taught by Dr. Gina Besenyi, my group members and I developed a tobacco control program for Riley County residents based on the application of two

theories, the Health Belief Model and the Transtheoretical Model. Constructs such as perceived barriers and self-efficacy were targeted by the program's components to promote optimal results.

In KIN 805 I designed an intervention program to promote physical activity. Rather than use existing theories, I developed a theoretical framework of my own after identifying key constructs from a target population needs assessment. My theoretical framework was supported by current peer-reviewed literature and used to inform programming.

In MPH 818, Dr. McElroy required an in-depth investigation into the Social Ecological Model and its importance to public health. As previously mentioned, many public health concerns have several contributors. The Social Ecological Model is a helpful tool to design, implement, and evaluate interventions aimed at addressing those multi-level determinants.

Competency 4-

The program my classmates and I designed in KIN 610 did not specifically address physical activity, but we developed the skillset to design and evaluate health promotion programs. Each assignment in KIN 610 built upon the next to create the program. In depth research into the target population and stakeholders was required for the needs assessment. Social marketing was used to promote our program, as knowledge of its importance in the health education and promotion community is increasing. Each step of the planning phase prepared for the evaluation phase, to assess and improve the quality and effectiveness of the program. Program goals were identified in more general terms and objectives were used to describe what would indicate goal achievement.

In KIN 805 I had the opportunity to alter an established or develop a new physical activity intervention. KIN 805 facilitated the development of strategies to improve the Well Vets Well Pets program developed by myself and CVM Counseling Services. The process evaluation guide I developed from class material in KIN 610, was used to modify program components to potentially better fit the needs of the CVM students. This application informed my suggestions for future implementation of the Well Vets Well Pets program for CVM Counseling Services.

My class did not design and evaluate a physical activity intervention in KIN 616. However, my class was exposed to numerous studies that did. We reviewed in depth the components of programs that were most successful and those that were not. For instance, more comprehensive programs targeting multiple lifestyle aspects, meeting at greater frequency, tend to yield optimal results.

Competency 5-

In KIN 610, Dr. Besenyi discussed the tools necessary to engage community stakeholders and secure funding for evidence-based health promotion programs. Before planning can begin, it is ideal to gain support from key community members for both resources such as funding and facilities, as well as philosophical purposes such as credibility and visibility. My classmates and I developed a program rationale to identify our target population, illustrate their needs, describe how potential program outcomes align with the stakeholders' priorities, and provide evidence-based research to support the program's ability to cause change. We also selected relevant theories in health behavior change to inform the development of the intervention.

Dr. Mailey discussed the individual level influences that facilitate and inhibit participation in physical activity in KIN 805. My classmates and I were exposed to, and sought out methods to improve, individual level characteristics such as self-efficacy and motivation. Much of the literature indicated that proximal outcomes such as stress management and enjoyment are important drivers for physical activity participation. We then developed a physical activity promotion program supported by peer-reviewed evidence.

Dr. Richard Rosenkranz discussed public health nutrition practices in FNDH 600. Dr. Rosenkranz also included peer-reviewed research that targeted health behavior change. My classmates and I examined the pitfalls of health education in the United States, such that knowledge may change attitude but does not often change behavior. Knowledge may be necessary to assist in behavior change, but for ideal results program planners should also target health educational strategies at behavior change and skill development. The most effective programs are those that focus on behavior rather than information, and are grounded in theory.

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Appendix

Appendix A

CVM Counseling Services: Needs Assessment Survey Drafts 1 & 2

Survey Draft #1:

1. Please describe what physical activity means to you. _____
2. How would you rank your physical health? _____
 - a. Poor
 - b. Fair
 - c. Good
 - d. Excellent
3. Do you meet the physical activity guidelines set by the CDC? (150 minutes of moderate intensity activity or 75 minutes of vigorous activity or a combination of both each week, with at least 2 days of strength training)
 - a. Never
 - b. Sometimes
 - c. Most times
 - d. Always
4. Physical activity has many benefits. Rank which is most important to you (1= most important, 5= least important)
 - a. Overall good health _____
 - b. Stress management _____
 - c. Weight management _____
 - d. Revitalization _____
 - e. Appearance _____
5. How do you receive most of your physical activity? Select all that apply.
 - a. Leisure-time exercise
 - b. Active commute
 - c. Household chores
 - d. Work duties
6. What would be your preferred method of physical activity? Select all that apply.
 - a. Walking
 - b. Running/jogging
 - c. Lifting weights
 - d. Team sports
 - e. Other: _____
7. Who would you like most to be physically active with?
 - a. Classmates/Friends
 - b. Significant other/Family
 - c. Pet
 - d. I prefer to be physically active alone
8. What makes physical activity challenging for you? (i.e. Work schedule, dislike of physical activity, home/childcare responsibilities, etc.) _____

Survey Draft #2:

1. How would you rank your physical health?
 - a. Poor
 - b. Fair
 - c. Good
 - d. Excellent
2. Do you meet the physical activity guidelines set by the CDC? 150 minutes of moderate intensity activity or 75 minutes of vigorous activity or a combination of both each week, with at least 2 days of strength training.
 - a. Never
 - b. Sometimes
 - c. Most times
 - d. Always
3. How do you receive most of your physical activity? Select all that apply.
 - a. At work
 - b. On campus
 - c. During exercise
 - d. Active commute
4. What would be your preferred method of physical activity? Select all that apply.
 - a. Walking
 - b. Running/jogging
 - c. Lifting weights
 - d. Team sports
 - e. Other: _____
5. What times of day Monday-Friday are most convenient for you to be physically active? Select all that apply.
 - a. 5-6 am
 - b. 12-1 pm
 - c. 5:30-6:30 pm
 - d. 6-7pm
 - e. Type your time: _____
6. What times of day Saturday-Sunday are most convenient for you to be physically active? Select all that apply.
 - a. Saturday mornings
 - b. Sunday mornings
 - c. Sunday evenings
 - d. Type your time: _____
7. What are your barriers to physical activity? (i.e. Work schedule, dislike of physical activity, home/childcare responsibilities, etc.)
 - a. Open-ended
8. What are some ways in which you *have* overcome your barriers to physical activity?
 - a. Open-ended
9. What are tools that you *need* to overcome your barriers to physical activity?

- a. Open-ended
10. Would it be more enjoyable for you to be physically active with your classmates or independently?
 - a. With my classmates
 - b. Independently
11. How likely would you be to participate in a physical activity program?
 - a. Never
 - b. Not likely
 - c. Likely
 - d. Absolutely
12. Would you be interested in being involved with a physical activity program for you and your classmates?
 - a. Yes! Email: _____
 - b. No.
13. With instruction and guidance, would you be interested in co-leading or leading one physical activity event or more?
 - a. Yes! Email: _____
 - b. No.

Appendix B

CVM Counseling Services: Process Evaluation Guide

Process Evaluation- was the program implemented as intended?

- 1- Fidelity – the extent to which the program was delivered as planned
 - a. Was the program launched on time and as intended?
 - b. How many of the intended activities were hosted? Did they begin and end on time?
 - c. Were weekly/semester surveys distributed when planned?
- 2- Recruitment – the quality and appropriateness of strategies to recruit participants
 - a. Was the email blast effective?
 - b. Where did students hear/learn about the program?
- 3- Reach – the proportion of the priority population given the opportunity to participate in the program
 - a. How many students heard about the program?
 - b. How many faculty/staff members heard about the program?
- 4- Response – the proportion of the priority population actually participating in the program
 - a. How many students signed up to participate?
 - b. Which activities were most frequented?
- 5- Dose – the number of program units delivered
 - a. How many activities were held throughout the program?
 - b. How many activities were offered each week?
- 6- Interaction – the quality of interactions between planners and the participants
 - a. Were they able to ask questions and receive helpful answers?
 - b. Did the students feel encouraged by program emails?
 - c. Were the weekly surveys simple and convenient?
- 7- Satisfaction – the degree to which the participants are satisfied
 - a. What the students did/did not enjoy about the program?

Appendix C

CVM Counseling Services: Email Blast for Program Launch

Students:

Good morning!

We are thrilled to announce the CVM health and wellness program. During a time of uncertainty and concern, it makes a lot of sense to turn our focus onto things that we can control. Our own wellbeing is an area that we can positively impact and improve as needed.

Whether you are looking for workout ideas or different ways of coping with stress or adding just a little more activity to your life, we have options for you! Check us out: <https://iweb.vet.k-state.edu/units/counseling-services/wellness-incentive-program/index.html>

Best of all, we've got lots of weekly, monthly, and semester prizes! Here they are: <https://iweb.vet.k-state.edu/units/counseling-services/wellness-incentive-program/Incentive-Rewards-List.pdf>

Here's how it works:

- Participate in a wide range of healthy activities. Check out the program description page: <https://iweb.vet.k-state.edu/units/counseling-services/docs/descriptions-and-point-values.pdf>
- Keep track of the minutes you invest in being healthy.
- Every Monday for the next 10 weeks, let us know what you've done. We'll send a weekly survey.
- Each minute you invest in healthy activities, you will earn a point.
- Some activities have participation points.
- Points will accrue and you'll be entered into our weekly, monthly, semester prize drawings.
- Share with the CVM community what you are doing (#wellvetswellpets) or on our private wellbeing Facebook page: <https://www.facebook.com/groups/2786011634966073/>

Let's focus on our wellbeing, and be "WELLVETS"!

Mac, Adryanna, Kayla, Shelby
Counseling Services Team

Faculty and Staff:

Hi CVM Faculty and Staff,

During a time of uncertainty and concern, it makes a lot of sense to turn our focus onto things that we can control. Our own wellbeing is an area that we can positively impact and improve as needed.

On Monday, we announced a new wellness incentive program for students and advanced trainees (house officers and graduate students). Participants will earn points for different activities which will make them eligible for a variety of prizes.

Even though faculty and staff aren't eligible for these prizes (remember we are all eligible for wellness incentives through HealthQuest), we want to make our wellness content available to all members of the CVM. We have some really exciting options:

- 1) High intensity interval workouts: we've partnered with a local trainer to provide the CVM with a weekly workout
- 2) Personal trainer tips: A second personal trainer is providing a weekly tip
- 3) Yoga: all of this semester's zoom yoga sessions are archived for your viewing
- 4) Movement minutes: if a formal exercise program isn't where you find yourself, we've got tips on how to include more activity into your normal life
- 5) Future content will include tips for dealing with stress, nutrition, mindfulness, and self-care

Between now and the end of the semester we'll be adding to our wellness offerings every week. Check us out at: <https://iweb.vet.k-state.edu/units/counseling-services/wellness-incentive-program/index.html>

We invite you to let the CVM know about your wellness activities and efforts. Please consider using #wellvetswellpets or post on our private Facebook page at <https://www.facebook.com/groups/2786011634966073/>. For those faculty and staff members making at least 1 wellness social media monthly, you'll be entered into a drawing for a family meal (4 servings) from Panera on us!

Let's focus on our wellbeing, and be "WELLVETS"!

Mac, Adryanna, Kayla
Counseling Services Team

Appendix D

CVM Counseling Services: CVM Physical Activity Planning Worksheet

CVM Physical Activity Planning Worksheet

Developed in collaboration with the K-State PAIR Lab

Physical activity preferences:

1. What types of activities do I like to do (e.g., walking dog, hiking, yoga)?

2. How often can I spend time during the week doing these activities (e.g., 3x/week)?

3. What days and times during the week can I do these activities (e.g., M/W/F at 6:30am)?

4. How long can I do these activities (e.g., 40 minutes)?

5. Identify 2 locations where you can do these activities (e.g., home, neighborhood)?

Create a plan:

Activity (walk my dog)	WHEN and WHERE will you do this activity? (M/W at 5:15pm in my neighborhood)	A barrier I will likely encounter is... (feeling tired after class)	The strategy I will use to overcome this barrier is... (go to bed on time the night before)
1.			
2.			

Appendix E

CVM Counseling Services: Wellness Survey 2020

Health Practices survey

The purpose of this survey is to gather data regarding the health practices and well-being of individuals in our College. Please be aware that your participation is voluntary. Your responses will remain anonymous, and the results will be aggregated and likely published in an effort to help us learn more about our College wellness and inform wellness programming.

You will be asked to respond to this survey again. The first three questions of the survey will be used to link your responses from the first survey to the second survey. No identifying information will be asked (e.g., name, student ID, employee ID, address, etc.).

Unique identifiers:

First pet's name (e.g., "Jasper"):

____ First choice
____ Second choice
Never had a pet (check box)

High school mascot (e.g., "Cardinal"). If you attended multiple high schools, use the one from which you graduated)

____ First choice
____ Second choice
Never had a mascot (check box)

Model of your first vehicle (e.g., "Accord", or "Versa"; Do not use vehicle Make, such as Ford or Chevy)

____ First choice
____ Second choice
Never owned a vehicle (check box)

A. Eating Habits:

A balanced diet is one that includes whole grains, lean protein, fruits, vegetables, low-fat dairy products, and healthy fats.

- On average, how many meals do you eat a day? _____
- How many servings of vegetables do you routinely eat per day? (1 serving corresponds to ½ cup of cooked or raw vegetables or 1 cup of leafy greens) _____ servings
- How many servings of fruit do you routinely eat per day? (1 serving corresponds to ½ cup of fruit) _____ servings

- How many servings of protein (red meat, white meat, plant-based sources of protein) do you routinely eat per day? (A serving of fish or meat is approximately 3 oz., or the size of the palm of your hand, a serving of beans and grains is approximately 3 oz., or ½ cup) _____ servings
- How many servings of dairy products do you routinely eat per day? (1 serving corresponds to 1 cup of milk, 1.5-2 ounces of cheese) _____ servings
- How much has your weight changed since becoming a vet student? (e.g., -10 if lost 10 lbs., +10 if gained 10 lbs., or 0 if weight is no change).
_____ lbs.
- Have you used the food pantry or the food pantry in our community? _____ Yes
_____ No

B. Sleeping Habits:

- On average, how many hours of sleep do you get per night during the week while school is in session?
_____ hours
- Have your sleep patterns changed since starting veterinary school? (Mark all that apply)

Sleep less	Sleep more	Restless sleep	Difficulty falling asleep	Difficulty staying asleep	No change
☐	☐	☐	☐	☐	☐

C. Support Group:

How likely are you to turn to the following people for emotional support?

a. friends outside veterinary school

Extremely likely	Moderately likely	Slightly likely	Neither likely nor unlikely	Slightly unlikely	Moderately unlikely	Extremely unlikely
☐	☐	☐	☐	☐	☐	☐

b. veterinary students

Extremely likely	Moderately likely	Slightly likely	Neither likely nor unlikely	Slightly unlikely	Moderately unlikely	Extremely unlikely
☐	☐	☐	☐	☐	☐	☐

c. significant other

Extremely likely	Moderately likely	Slightly likely	Neither likely nor unlikely	Slightly unlikely	Moderately unlikely	Extremely unlikely
☐	☐	☐	☐	☐	☐	☐

d. Family members (parents, siblings, aunts, uncles, etc.)

Extremely likely	Moderately likely	Slightly likely	Neither likely nor unlikely	Slightly unlikely	Moderately unlikely	Extremely unlikely
☐	☐	☐	☐	☐	☐	☐

e. veterinary faculty

Extremely likely	Moderately likely	Slightly likely	Neither likely nor unlikely	Slightly unlikely	Moderately unlikely	Extremely unlikely
☐	☐	☐	☐	☐	☐	☐

f. faculty mentors

Extremely likely	Moderately likely	Slightly likely	Neither likely nor unlikely	Slightly unlikely	Moderately unlikely	Extremely unlikely
☐	☐	☐	☐	☐	☐	☐

g. CVM staff

Extremely likely	Moderately likely	Slightly likely	Neither likely nor unlikely	Slightly unlikely	Moderately unlikely	Extremely unlikely
☐	☐	☐	☐	☐	☐	☐

h. veterinarians from home

Extremely likely	Moderately likely	Slightly likely	Neither likely nor unlikely	Slightly unlikely	Moderately unlikely	Extremely unlikely
☐	☐	☐	☐	☐	☐	☐

i. others (please list relationship) _____

Extremely likely	Moderately likely	Slightly likely	Neither likely nor unlikely	Slightly unlikely	Moderately unlikely	Extremely unlikely
☐	☐	☐	☐	☐	☐	☐

D. Exercise

- How many days do you routinely exercise each week?
- What is the average length of time (in minutes) of each exercise session?
- What are your barriers to physical activity? (i.e. Work schedule, dislike of physical activity, home childcare responsibilities, etc.)
- What are some ways in which you have overcome your barriers to physical activity?
- What are tools that you need to overcome your barriers to physical activity?

E. Meditation:

- Do you meditate? ☐ yes ☐ no
- How many times per week do you meditate? _____
- How long are your meditation sessions (in minutes)? _____

F. Social media usage

- How much time do you spend on social media (in minutes per day)? _____ minutes per day
(to check your screen time, you can check your settings. For apple users, go to settings, battery usage, etc. For Android users, go to settings).

G. Students: What is your GPA? _____

H. Finances

When thinking about your personal finances, how do you feel?

Extremely distressed	Moderately distressed	Slightly distressed	Not at all distressed
☐	☐	☐	☐

- Participation in wellness programs:** Mark all activities offered within the KSU CVM you have attended in the last year (check all that apply):

- ☐ Yoga
- ☐ Mental health first aid training
- ☐ Fitness room at the CVM
- ☐ Snacking stations
- ☐ Purple Pantry
- ☐ Healthy Item drawer
- ☐ The Good Cards
- ☐ We Care Breakfast
- ☐ Finals Pancake Feed
- ☐ Volunteering
- ☐ HIT Weekly workout
- ☐ Personal Trainer tips
- ☐ Self-care moment videos
- ☐ Resilience builder videos
- ☐ Instant recess
- ☐ Expert tips and tricks

- Listed below are potential stressors students may experience. Please place a check mark in the box to specify how stressful these events are for you.

	Not at all or not currently experiencing	Slightly	Moderately	Extremely
1. Home-sickness	☐	☐	☐	☐
2. Financial concerns	☐	☐	☐	☐
3. Family illness	☐	☐	☐	☐
4. Death of a loved one	☐	☐	☐	☐
5. Balancing school with dating relationship or married/family life	☐	☐	☐	☐
6. Relationship conflict (partner/marital/significant other)	☐	☐	☐	☐
7. Transportation difficulties	☐	☐	☐	☐

8. Moving from a rural to an urban environment	☐	☐	☐	☐
9. Moving from an urban to a rural environment	☐	☐	☐	☐
10. Feeling like you don't "fit in" with other students	☐	☐	☐	☐
11. Feeling like you are not as smart as other students	☐	☐	☐	☐
12. Difficulty understanding class lectures or textbooks	☐	☐	☐	☐
13. Not getting studying done in the time you planned	☐	☐	☐	☐
14. Concerns about academic performance	☐	☐	☐	☐
15. Being behind in your studying	☐	☐	☐	☐
16. Heavy workload (class, studying, etc.)	☐	☐	☐	☐
17. Feeling uncertain of what is expected of you in school	☐	☐	☐	☐
18. Other	☐	☐	☐	☐
19. Other	☐	☐	☐	☐

K. Psychological wellbeing

Circle one response below each statement to indicate how much you agree or disagree with the following statements:

- "I like most parts of my personality."
- "When I look at the story of my life, I am pleased with how things have turned out so far."
- "Some people wander aimlessly through life, but I am not one of them."
- "The demands of everyday life often get me down."
- "In many ways I feel disappointed about my achievements in life."

6. "Maintaining close relationships has been difficult and frustrating for me."

Strongly agree Somewhat agree A little agree Neither agree nor disagree A little disagree Somewhat disagree Strongly disagree

7. "I live life one day at a time and don't really think about the future."

Strongly agree Somewhat agree A little agree Neither agree nor disagree A little disagree Somewhat disagree Strongly disagree

8. "In general, I feel I am in charge of the situation in which I live."

Strongly agree Somewhat agree A little agree Neither agree nor disagree A little disagree Somewhat disagree Strongly disagree

9. "I am good at managing the responsibilities of daily life."

Strongly agree Somewhat agree A little agree Neither agree nor disagree A little disagree Somewhat disagree Strongly disagree

10. "I sometimes feel as if I've done all there is to do in life."

Strongly agree Somewhat agree A little agree Neither agree nor disagree A little disagree Somewhat disagree Strongly disagree

11. "For me, life has been a continuous process of learning, changing, and growth."

Strongly agree Somewhat agree A little agree Neither agree nor disagree A little disagree Somewhat disagree Strongly disagree

12. "I think it is important to have new experiences that challenge how I think about myself and the world."

Strongly agree Somewhat agree A little agree Neither agree nor disagree A little disagree Somewhat disagree Strongly disagree

13. "People would describe me as a giving person, willing to share my time with others."

Strongly agree Somewhat agree A little agree Neither agree nor disagree A little disagree Somewhat disagree Strongly disagree

14. "I gave up trying to make big improvements or changes in my life a long time ago"

Strongly agree Somewhat agree A little agree Neither agree nor disagree A little disagree Somewhat disagree Strongly disagree

15. "I tend to be influenced by people with strong opinions"

Strongly agree Somewhat agree A little agree Neither agree nor disagree A little disagree Somewhat disagree Strongly disagree

16. "I have not experienced many warm and trusting relationships with others."

Strongly agree Somewhat agree A little agree Neither agree nor disagree A little disagree Somewhat disagree Strongly disagree

17. "I have confidence in my own opinions, even if they are different from the way most other people think."

Strongly agree Somewhat agree A little agree Neither agree nor disagree A little disagree Somewhat disagree Strongly disagree

18. "I judge myself by what I think is important, not by the values of what others think is important."

Strongly agree Somewhat agree A little agree Neither agree nor disagree A little disagree Somewhat disagree Strongly disagree

L. Demographics: "The following information is optional"

Race/ethnicity: (check all that apply)

Caucasian
African American
Asian
Hispanic/Latino
Pacific Islander
Native American
Other: _____

Gender: I identify as...

☐ Female
☐ Male

Age: _____

Current relationship status:

☐ Not in a relationship
☐ Dating
☐ Engaged
☐ Living together
☐ Married
☐ Remarried
☐ Divorced/annulled
☐ Separated
☐ Widowed

M. What veterinary class are you a member? ____ (indicate the year)

Thank you for your participation!

CVM Counseling Services: Well Vets Well Pets Final Meeting Presentation

Theme	Concepts/Themes	Student Statements
Individual Health	1. Personal health 2. Take breaks 3. Good eating 4. Maintaining	1- "I try to sleep only 7-8 hours a day, I try to sleep only and do so with to rest myself instead of either trying to do more or doing to the contrary or stress eating." 2- "I listen to lectures while I walk."
Social Support	1. Companion animal 2. Activity 3. Shared responsibilities 4. Shared responsibilities	1- "Taking my dog on a walk/going bike." 2- "I am working on walking bike." 3- "I am working on the house to help move with me and cleaning."
Alternative PA	1. Virtual fitness 2. Home based PA 3. Active companion 4. External motivation	1- "I preferred to exercise at home because I don't have to come into campus for several hours, I have to hike or jog in 2-3 miles a day, doing 2-3 miles a day for 30-45 min." 2- "Signed up for S&S and forced myself to run." 3- "I bought a dog and he changed, like sleep or study time." 4- "Sacrificed academics." 5- "I signed up for a dog and I have."
No solution	1. No solution 2. No response	1- "I don't know." 2- "I don't know."

Thema	Content/Handout	Student Statements
School changes	1. Most flexible schedule 2. Regulated clinical hours 3. Mental health days	1- "Take more exams or long periods of time to be able to take exams. Help a lot with..." 2- "I need a mental health day here and there. I have more books and papers than I can keep up with."
Individual resources	1. Time management 2. Stress management 3. Stress management 4. More sleep	1- "Learning how to manage time is what to keep better." 2- "Right now, studying takes me forever. I've got a lot of studying to do, so I'm getting the most courses."
Facilities	1. Extended gym hours 2. Extended library hours 3. Extended library hours	1- "I love my study time, for me." 2- "Better gym hours."
Social support	1. Accountability 2. Accountability 3. Workout partners	1- "I need help to be more motivated." 2- "Accountability partners."
CNA Culture	1. Empathize student with importance of other life events/commitments 2. Recognize the importance of other life events/commitments	1- "Care about the students and their lives." 2- "Knowing it's okay to take time out of my day to work on other things."

INTERVENTION GROUP



SKILL BUILDING WORKSHOPS
(Self-efficacy)



PEER GROUP WALK & TALK
(Accountability)



CULTURE CHANGES
(Culture)

WALK & TALK EXAMPLE PROMPTS:

1. Which study methods have been most helpful during your academic career thus far? Share some of your most valuable study skills.
2. What physical activities do you like to do most and how do you fit them into your schedule?
3. What is your go to stress reliever? Is it a healthy way to manage stress, why or why not?
4. Compare times when you communicated well with a professor and times when you didn't. In what areas can you improve?
5. How do you justify taking time out of your day to exercise? Do you use mantras?



WALK & TALK

- Peer groups will meet for a 30-minute walk to discuss prompts
- Meet weekly for 6 weeks and every third week for the remaining 10 weeks
- Prompts reflect student concerns
- Ideally outdoors
- Pets welcome



What is your go to stress reliever? Is it a healthy way to manage stress, why or why not?

How do you justify taking time out of your day to exercise? Do you use mantras?



SKILL BUILDING WORKSHOPS

- Four 50-minute workshops addressing student concerns
- 1) Time management
- 2) Efficient & effective study skills
- 3) Overcome physical activity barriers
- 4) Physical activity as self-care^{24, 25}

ONE Day Management Log

Use this template to record your daily activities and track your progress. The log is designed to help you identify patterns in your behavior and make adjustments as needed. The log is divided into two main sections: **Time Management** and **Physical Activity**. The **Time Management** section includes a grid for recording your daily activities and a section for reflecting on your progress. The **Physical Activity** section includes a grid for recording your daily physical activity and a section for reflecting on your progress.

Day	Time Management	Physical Activity
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		

ONE Week Physical Activity Planning Worksheet

Use this template to plan your physical activity for the week. The worksheet is divided into two main sections: **Physical Activity Planning** and **Reflection**. The **Physical Activity Planning** section includes a grid for recording your daily physical activity and a section for reflecting on your progress. The **Reflection** section includes a section for reflecting on your overall physical activity for the week.

Day	Physical Activity Planning	Reflection
1		
2		
3		
4		
5		
6		
7		



CULTURE CHANGE

- Counseling Services, the Dean, and class officers are needed to champion this shift.
- New expectations for communication³⁴
 - Professors-
 - Clearly state preferred communication type and time
 - Promote communication with kindness and empathy
 - Students-
 - Professionalism
 - Communicate early and often





CULTURE CHANGE



MOVEMENT MINUTES

Take a 5 minute break from your work and go for a walk outdoors.



MOVEMENT MINUTES

Take a 5 minute break from your work and do some stretches.



MOVEMENT MINUTES

Take a 5 minute break from your work and do some stretches.



MOVEMENT MINUTES

Take a 5 minute break from your work and do some stretches.

- Policy change
 - 2 mental health days per semester
 - Students still responsible for course work
 - Frequent absenteeism is unacceptable
 - "Movement Minutes"- 5% at
 - 3-5 minute physical activity break for every 60 minutes of seated class time
 - Short training seminar for professors
 - List of potential activities

Appendix G

K-State Research and Extension of Riley County: Nourishtogether.org Articles

Article 1- Affordable and Versatile Kitchen Staples

About UsRecipes & More

Affordable and Versatile Kitchen Staples

Shelby Hunt

Eating On A Budget, Quick Recipes

February 8, 2021

Gourmet recipes taste delicious, but require several ingredients. Some of which you wouldn't otherwise use. Rather than accruing the expense, let's prepare meals with a few affordable yet versatile staples.



Bananas sometimes get a bad rap for their sugar content. However, bananas are loaded with nutrients that boost immunity, assist in cardiovascular health, and ease stomach discomfort. Bananas make simple snacks, pair with nut butters for sandwiches, garnish salads, make pancakes, and flavor baked goods!

English

Oats can help manage weight, reduce chronic inflammation, and aid in digestive health. Baked or refrigerated oats make for quick breakfasts. Healthful snack options include homemade granola bars or oat garnished yogurts. Oats can also make it to the dinner table in breads and risottos.



Eggs promote eye, skin, and immune health. Eggs are best consumed in moderation, 1-2 per day. Pairing eggs with fresh vegetables and whole grains is best to enhance flavor and capitalize on nutrients. Eggs can be eaten traditionally at breakfast or placed on salads and sandwiches, in burritos or quiche, or used as a binding agent in many recipes.

Check out a few simple favorite recipes for utilizing these kitchen staples!

Banana Pancakes

Peanut Butter Banana Oatmeal

Shelby Hunt, LAT, ATC is a Master's of Public Health student at Kansas State University

English

Article 2: Safe Food Storage has yet to be published.

Draft: Safe Food Storage

Foodborne illness effects as many as 1 in 6 Americans each year. Safely storing and discarding your food when necessary can prevent infection. Perishable foods should be stored below 40°F in airtight containers or moisture- and vapor-proof materials such as foil and plastic wrap. Foods should be labeled with the date they were prepared. When spoiled, foods should be removed as not to allow decay to contaminate other foods. Non-perishable foods should be stored in cool, dark, and dry locations away from chemicals that may leech. Pay attention to

dates. Use the oldest products first. If you have reached the “use by” date or the package is damaged, throw it out!

Understanding Packaging Dates

“Sell by” dates are for store use. You can safely eat the item past this date. For best taste and quality, consumers should eat food by their “best by” dates. However, they are still safe to eat beyond this date. When in doubt, foods should not be consumed beyond the “use by” date. Food flavor, appearance, and texture are likely to significantly deteriorate.

For questions about specific foods:

*Research and Extension PDFs- cold and cupboard storage

For more information about food safety:

<https://www.cdc.gov/foodsafety/index.html>

Appendix H

K-State Research and Extension of Riley County: Kitchen Restore Interview with Megan Dougherty

1. How did the FFC identify a need for the Kitchen Restore program?

The Flint Hills Wellness Coalition started as a nutrition work group (1 of 5 work groups at the time). Then became Kitchen Restore which developed into the FFC. Now Kitchen Restore is housed under the FFC. We saw a lack of food skills in younger generations- they no longer have to take home economics classes, they are electives. We saw that transgress into students at KSU and then young adults. We dove in deeper and found they did not have the skills, nor the equipment needed to learn the skills. We needed to start with ground zero to be able to teach the skills.

2. What was the initial goal or objective of Kitchen Restore?

The ultimate goal is to provide kits and have a nutrition education component with the kit. We aren't there yet. When they pick up the kit from their social service organization, we ask if they want to participate in nutrition education classes. We want to make it a requirement, but know that people may stop using the service if required. We are considering incentives instead- providing extras like crockpots for attending.

3. Has the program changed from its original intent?

We've definitely changed thought processes throughout. Something always comes up to alert you of something that could be done better. Douglas County originally had a kitchenware garage sale where everything was a dollar. The money goes back to education programs. The idea originated there. Riley County wanted to just give out the kitchenware. So, we started with individual pieces that people needed (late 2019). It was a never-ending inventory process and was still not serving clientele's needs. We changed to supplying a personalized starter kit- just threw things together. Now we have a standardized kit and don't stray too far from it unless we need another table setting for a larger family. We have a better idea of how many kits go out and what inventory is left. It's more streamlined.

We want to expand to kits for Cats Cupboard and other community areas. We just don't know what that looks like yet.

4. What challenges has Kitchen Restore experienced such as the COVID-19 pandemic, collecting donations, distributing kits, etc.?

I took over in March 2020 with COVID. The biggest struggle we ever had was finding a partnership location to house Kitchen Restore, though. You don't realize how much a space limits you. The Salvation Army central location helped to escalate the program. We have a pretty good network of people to get the word out for donations- radio, a newspaper article, and now the Manhattan magazine. People always donate, but we get a lot of junk or things that aren't needed. A lot of time and resources are spent on sifting through the donations. We are a little better with donations now that they are listed on the flyer. In the past we used to have boxes donated where we only kept one thing. That doesn't happen near as often now.

5. How has Kitchen Restore adapted to overcome these challenges?

COVID made us transition from drop off locations at partnering churches and the county building when everything was shut down. We didn't have many donations. We had a soft launch with the newspaper in May/June, but didn't have any place for people to drop donations off. Some volunteers offered for people to drop things off at their front step. Also, I drove around and collected things from people's houses. Usually when people are going through things, they want to get rid of them quickly.

We weren't able to continue with education classes either. We're just now trying to bring back nutrition education- starting to get online class options. We have to find online educators and clients that have access to internet. So, there are still lots of challenges. Cooking class participants want the hands-on experience- they can watch a cooking show on TV.

6. Do you think Kitchen Restore has made the impact that was expected?

Based on partner feedback, definitely. I think the fact that we have 11 partner organizations is great. They just keep hearing about us and wanting to partner with us. They know what we are doing and understand that it is a helpful resource.

7. How is the FFC measuring program impact or success?

With commentary from partners when they hand out kits- what the kits mean to the clients. That's a huge measure of success.

Partner feedback. How nice of a resource it is. They know from working with their clients that it is stress relief not having to spend so much.

Giving out several kits. December alone was about 25 kits. It fluctuates throughout the year. It will be interesting to see what kind of needs arise once COVID lifts.

8. If any, what changes do you think could be made to improve Kitchen Restore?

We always need more volunteers. We really can't expand the program anymore. We want to offer a kitchen recovery team, but without more volunteers we can't expand into those areas. We have too many volunteers for the small space now- sorting and packing. The kitchen recovery task force to clean out the kitchen, take what we can use, and get rid of what we can't (rentals- Jardine, the Link, etc.)- we need more volunteers for that. We have the partnerships and building blocks in place, but lack the manpower.

Appendix I

CVM Counseling Services: In-Depth Explanation of Potential Program Changes

Walk and Talk for Accountability

Students frequently mentioned on the baseline survey that they need to be held accountable. Therefore, Well Vets Well Pets can provide accountability through peer engagement and encouragement. Students would be randomly allocated to groups of three to four. The intervention program would be extended for the length of the semester. Therefore, peer groups would be required to meet for a weekly “Walk & Talk” session for the first six weeks of the 16 week- intervention. For the remaining 10 weeks, peer groups would meet every third week for an additional three Walk & Talk sessions. Meetings should last a minimum of 30 minutes. Specific meeting days and times would be determined by the peer group at the beginning of the intervention. The planned schedule, as well as attendance would be reported to the program planners.

Just as the alludes to, students would engage with one another while walking. Prompts reflecting concerns mentioned by students during the baseline survey would be provided to initiate discussion at each session. Peer groups would be encouraged to expand beyond the prompts, as well as discuss pertinent concerns or thoughts. Weather permitting, Walk & Talks would be encouraged to be outdoors around campus, at a local park, or on Linear Trail. Barton and Pretty (2010) found a dose response effect for duration of exercise in green spaces. “Green exercise” was found to improve self-esteem and mood (Barton & Pretty, 2010). Walk & Talks could be designed in such a way to include companion animal activity such as dog walking. Students most frequently reported companion animal physical activity during the first round of the program. If possible, the intervention could facilitate continuation of that behavior. However, if needed the KSU Recreation Center indoor track would be available. It should offer enough space for students to safely distance themselves. If COVID-19 restricts in-person interaction, students could talk via phone while walking around the home.

To keep students from feeling as though Walk & Talks are an extra task to complete, the program would be presented as a social outing for students to express concerns, provide social support, and offer advice. Peer groups, as well as the initial six weeks of immersion are intended to improve accountability. Peers often become invested in one another, especially having experienced similar classes and stressors. Therefore, peers may be more apt to hold one another

accountable, ultimately improving adherence (Ryan et al., 2000). Also, interventions requiring more frequent sessions are likely to improve adherence (Webb & Wadden, 2017). Lastly, utilizing the Walk & Talk as physical activity would ensure that the participants would be increasing their physical activity levels. They could also learn to associate physical activity with stress relief as they are allowed to vent without fear of reprisal.

Skill-Building Workshops for Self-Efficacy

Needs assessment data also identified lack of self-efficacy for a variety of tasks necessary for success in the DVM program. Therefore, four 50-minute workshops would directly address several of those concerns such as managing time wisely, studying efficiently and effectively, overcoming physical activity barriers, and promoting the acceptance of self-care breaks utilizing physical activity. As KSU battles with the rising cases of COVID-19, students in the DVM program are more likely to remain on campus compared to others. This is due to necessary lab instruction and completion of clinical competencies. Therefore, large lecture halls and smaller group sizes spread over multiple workshop dates could accommodate for COVID-19 restrictions. If the university were to close entirely, workshops could be moved online via Zoom. Two strategies would be utilized to increase self-efficacy: mastery experiences and modeling.

The four topics overlap allowing students to hear helpful information multiple times in a variety of ways. For instance, time management, efficient studying, and overcoming physical activity barriers go hand in hand. Many students view time as a barrier to physical activity, with studying taking up the vast majority of their time. Olander and colleagues (2013) found time management to significantly increase physical activity self-efficacy because it provides a greater sense of control over potential obstacles (Olander et al., 2013). Workshops addressing time management would capitalize on mastery experiences. Students accepted into the DVM program are clearly elite level students. They would reflect back on successful time management during their undergraduate career. A three-day time management log would also be completed for students to identify blocks of time that could be used more efficiently.

Needs assessment data indicated that students study methods that worked during undergrad were not as helpful once entering the DVM program. They expressed concerns over the length of time, as well as the effectiveness of those study methods. Therefore, workshops addressing study skills would provide more efficient and effective alternatives. Research indicates handwritten notes are retained better than typed notes (Desselle & Shane, 2018).

However, many students type their notes in order to keep pace with their instructors. Opportunities to improve typed notes such as limiting other webpage distractions during lectures and typing in one's own words versus copying information verbatim would be discussed during the workshop (Desselle & Shane, 2018). Task self-efficacy is anticipated to improve with success of new study techniques in conjunction with modeling from peers in the Walk & Talk group.

During workshops addressing physical activity barriers, students would identify likely barriers and complete a physical activity planning sheet for the upcoming week. Trost et al. (2002) found that individuals reporting greater barriers self-efficacy engage in more physical activity (Trost et al., 2002). A compilation effect would occur when students learn to manage time more efficiently and study more effectively, ultimately leading to overcoming two major physical activity barriers. Also, Walk & Talk discussions are likely to assist in developing barriers self-efficacy as students hear about their peer's ability to overcome their barriers.

Lastly, cultural changes at the CVM along with workshops would address promoting the acceptance of self-care breaks utilizing physical activity. Workshops would highlight proximal outcomes associated with physical activity breaks that align with the participants' values. For instance, physical activity can assist in stress management and revitalization (Mailey et al., 2018). It also boosts energy and improves focus and productivity, all of which are particularly important to students (Yancey, 2013).

Policy Implementation for Culture

Students and faculty/staff would be required to make changes to improve the culture. Counseling Services, the Dean, and class officers would be needed to champion this shift. Counseling Services would act as a liaison between faculty/staff and students, similarly to the Office of Student Life. Counseling Services would implement a policy to allow students two mental health days throughout the semester. The policy would ensure students' grades are not harmed. Students would still be required to complete tasks assigned on mental health days. If assignments are due on a mental health day, they would remain due unless prior notice was given to the instructor. Students would be responsible for reporting mental health days to both their instructor and Counseling Services. Counseling Services would track mental health day usage. With assistance of the Dean, Counseling Services would address any concerns related to the

mental health day policy such as instructor denial or student absenteeism. Frequent absenteeism would not be acceptable and may lead to referral to Counseling Services.

The Dean and class officers would advocate for improved communication between professors and students. All students and faculty/staff would be required to complete a 20-minute professional communication and courtesy training module in Canvas within the first two weeks of the intervention. It would outline the following. In their syllabi, professors should clearly address class expectations and offer preferred forms of communication identifying times in which responses may be delayed. Professors should also engage with students in a manner that promotes further communication such as expressing empathy and kindness. When concerns arise, students should communicate early and often with their professors in their preferred methods. Professors are likely to be lenient with students when communication is clear and respectful. During times of COVID-19, it is invaluable that students and professors have the ability to engage in meaningful conversation about class and pertinent life circumstances. Together with the assistance of the Dean if necessary, students and professors would work to address individual needs.

The Dean would institute a policy to require a three- to five-minute physical activity break for every 60 minutes of class time. A study performed by Taylor and colleagues (2013) found that physical activity work breaks reduced stress, increased health awareness, and facilitated behavior change (Taylor et al., 2013). Academic performance is also positively influenced by physical activity breaks. A systematic review and meta-analysis performed by Watson et al. (2017) found students to attain greater academic achievement when participating in physical activity breaks in the classroom. Results indicated that physical activity breaks may improve content recall and self-reported academic competence (Watson et al., 2017). “Movement Minutes” were introduced in the initial Well Vets Well Pets program. However, students were tasked with completing this on their own when studying. A need for greater organizational support was identified by Taylor et al. (2013) as a common barrier to breaks. Employees suggested that superiors encourage participation and participate in breaks themselves (Taylor et al., 2013). Movement Minutes would be required for students, but professors would be encouraged to participate when possible. Professors would be required to attend a 45-minute seminar prior to the start of the semester where they would learn when, how, and why to incorporate physical activity breaks during class. A compilation of Movement Minutes activities

would be provided for them. The Dean would entertain complaints if students report lack of implementation of Movement Minutes in their classrooms