Promoting Wellness to a Rural Area through Recreation Facility and Programming

Tamara A. Salonen
St. Cloud State University

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Promoting Wellness to a Rural Area through Recreation Facility and Programming

by

Tammy Salonen

A Thesis
Submitted to the Graduate Faculty of
St. Cloud State University
in Partial Fulfillment of the Requirements
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Master of Science
in Sports Management

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Thesis Committee:
David Bacharach, Chairperson
Caryl Martin
Steven Hoover
Abstract

Wellness can mean many things to many people. Wellness does not just mean that a person is free from illness; wellness is a dynamic and continued process for oneself. Wellness has been defined by the National Wellness Institute as an active process through which people become aware of, and make choices towards, a more successful existence (9). Wellness models have been created to try and further explain the dimensions of wellness and their interactions with each other and the impact on quality of life. Wellness models have used dimensions of wellness such as physical, emotional, intellectual or mental, spiritual, environmental or occupational, psychological and social. The dimensions can further be described as a constant continuum for the human body to work towards optimal well-being in each area.

Participation in wellness programs has been known to improve the quality of life and overall health of the participant. However, wellness outreach programming in rural areas often lacks the resources and professionals to provide available and quality programming for the people in such small communities. In January 2000, the United States Department of Health and Human Services launched Healthy People 2010, a 10 year goal to improve the health of Americans through health promotion and disease prevention (25). This initiative has brought increased awareness to the overall health of people in this nation. With increased awareness, rural areas are discovering ways to make wellness programs available and affordable to people in these areas.

The purpose of this paper is to show how a wellness center and its programming can be initiated in a rural area, reveal the current perceived wellness of its members, and discuss the potential impact on the community to increase overall health and well-being of people in a rural setting.

Demonstrating the process of an intervention type program, such as the wellness center and wellness programming in a small community, is significant to understanding the potential of providing wellness programming to other rural areas and the impact it may have on the wellness and overall health of people in the community.
Acknowledgments

I would like to thank my wonderful husband, Mike, for his continued support and encouragement through the years and always believing in me and pushing me further. I also want to thank my children for accepting the work load I have endured over the years. I want to thank my brother Mike for his continued guidance and mentoring that he unwittingly has provided throughout my life. I especially want to thank my mother for introducing me to my profession as a young girl and always believing in me and giving me the confidence to pursue my dreams.

I dedicate my success to all of those mentioned above and also my father in heaven, who has smiled down upon me the past nineteen years with pride.
Heaven & Earth

We weave our lives with inner visions, threads of hope we carry in waking dreams and meanings found in the quiet whispers of our slumber. There is great wisdom in the tapestry of our dreams. It is here we discover the subtle clues to the secret workings of our minds, and the truth of our deepest longings. As we venture through life’s miraculous journey and grow as people, it is important to listen to the messages we are given, for they are powerful guides. Every thought has its reason for surfacing; every goal must begin with the seed of a dream. Indeed, it is never easy reaching for dreams, but those who reach surely walk in stardust.

Author-Unknown
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Chapter 1: Introduction

The benefits of wellness are very wide ranging and are available to everyone regardless of ability, age, and gender or other. Wellness can be addressed by action at many levels including individual and community.

The Healthy People 2010 initiative included 467 objectives organized into 28 focus areas including access to quality health services, nutrition and overweight, and physical activity and fitness, just to name a few (25). These focus areas, like the term wellness, can be very broad and can be perceived differently by different people.

Quality health care can be in regards to your physical health and refer to the lack of qualified providers or resources to attain better health. Nutrition and overweight also refer to physical health or wellness and can have a personal perception or definition. Physical activity and fitness is a component of physical wellness and imply different activity and levels of fitness. These areas will be further addressed and more specific in regards to people in rural areas.

The Problem

Research has shown that Rural America seems to be deficient in resources for the population to work towards optimal wellness (4, 7, 10, 11, 32). Achieving physical wellness can be staying free from illness, being physically fit, maintaining a healthy body weight, having good nutrition, and preventing harm to one self. This deficiency in resources may be due to economic reasons, lack of education, and/or lack of community support.

The possibility of the lack of healthcare professionals in rural areas may be several reasons. Professionals may find it challenging to find comparable incomes in the healthcare
industry in rural areas compared to that of urban areas. Many professionals are not willing to take a chance on establishing a career in a rural area due to the potential of economic hardship that can come from fewer people to serve (4, 7, 8).

People in rural areas may lack the education and significance in regards to wellness and the importance of being well due to lack of professionals and other resources. This may lead to a decreased value about personal wellness and a relation to adherence to a wellness lifestyle or development of lifestyle change (31).

The lack of community support can be directly related to the lack of professionals or expertise and lack of education or awareness. Rural areas are unable to support community based programs without gaining in these areas to sustain community wellness programs and facilities (4).

The problem to be addressed in the study is the barriers to wellness in rural areas and addressing them through recreation facility and programming. The following case study documents an existing wellness center in a rural area offering wellness opportunities through facility and programming.

**The Purpose**

The purpose of the case study is threefold. First, to gain a better understanding of wellness, the dimensions of wellness and the role they play on overall wellness and quality of life. Secondly, to use an existing wellness center in a rural area and its programming as an intervention type method towards wellness. Third and primarily, to provide context in which the measurement of current perceived wellness of sample population can be discussed in hopes to provide valuable insight into the perceived constraints to attaining improved
wellness. This may allow professionals to gain a better understanding of the factors that can influence increased wellness and awareness in rural areas. In gaining a better understanding, information obtained from the case study can be utilized for wellness planning of a facility and programming for rural areas so that constraints can be addressed and their impact reduced.

The information obtained may also lead to further research, increased awareness, and responsibility at the community level. Communities in rural areas may find the information valuable and begin to build relationships to develop wellness programming or facilities to enhance their own community wellness.
Chapter 2: Review of Literature

Introduction

There has not been much written specifically on inactivity in rural areas or wellness facilities and program initiatives as a type of intervention to increase wellness or health in rural areas. According to the Readiness for Health Promotion: Rural Disability and Rehabilitation Research prepared by Murphy and Seekins, “In rural areas where there is limited access to health care providers knowledgeable about disability, managing one’s own health and wellness and using strategies to prevent secondary conditions may be particularly important” (26, p. 1).

There is significant evidence that shows that participation in wellness programs has improved the quality of life and overall health, lower mortality rates, and reduces medical care cost (26, 4, 8, 11, 14). Although the evidence exists, most people do not participate in health or wellness programs or practice a healthy lifestyle (26).

Wellness has a very broad and often complex definition making information on the subject somewhat nebulous. It is evident that we are unable to predict human health such as wellness or positive health. Models have been developed to try and better understand wellness or the variability in health. Wilson and Cleary (17) incorporated several components of wellness, variables, symptoms, health perceptions and others in a wellness model. In this model they concluded that how people “see the world” makes an impact on our health and wellness.

Research has suggested that tension stimulus elicits stress only if it perceived as a threat (18, 19). Other studies have shown that one’s own perceptions of their health are a
strong analysis of their health outcome (20, 21). Individual perceptions may be just as important of a factor as standard risks when talking about individual wellness.

In this chapter, wellness in rural areas and the Healthy People 2010 initiative will be addressed to further understand current issues and actions that have been taken to attend to the wellness or health of people in rural areas. We will define wellness and the dimensions of wellness to provide a more thorough understanding of how people may perceive personal wellness.

**Wellness in Rural Areas**

The Rural Healthy people 2010 project was initiated and intended to maximize the impact of Healthy People 2010 on health conditions in rural America. The purpose of the project was the recognition of greater challenges in rural areas compared to that of urban areas in addressing the Healthy People 2010 objectives (30). The project surveyed people in rural areas to identify what they felt were health priorities. Some of these included access to health care, community-based programs, and nutrition and overweight.

Studies have shown that large percentages of people in rural areas are uninsured for various reasons such as high premiums and difficult economic times. A higher percentage of rural residents also report poor to fair health, no visit to a health professional and low confidence in getting the needed health care. According to the Economic and Social Research Institute, the greatest challenge is making innovative systems of care delivery financially feasible (1).

The lack of community-based programs in rural areas has also been identified as a concern. Educational and community-based programs were focus areas as one of the top rural
health priorities in The Healthy People 2010 (4). The Healthy People 2010 goal for the Educational and Community-Based Programs focus is to increase the quality, availability, and effectiveness of community and education-based programs designed to prevent disease and improve quality of life (34). Rural areas may lack the resources and expertise to develop successful educational and community-based programs. Community-based programs seek to improve the community’s health and effectively reach populations in rural areas.

Barriers associated with this concern may include health care facilitators with financial constraints or lack of support to initiate programs (31), and a low level of readiness from the population to address health problems (32).

Overweight and obesity in America are described by the Surgeon General as epidemic in proportion with 61 percent of adult and 13 percent of children as obese or overweight (36). Diagnosis of overweight or obesity is a significant problem and can lead to various diseases including heart disease, diabetes, cancer, hypertension and orthopedic problems. Although obesity is found throughout the country, the problem may be especially severe in rural areas. The prevalence in rural areas is caused by the demographic composition. Rural residents are less educated, have a lower income, and are older which has been associated with having greater obesity (31).

Research shows that obesity and physical inactivity is more common among rural people compared to that of urban (11). Obesity rates in children ages 6 to 11 have more than quadrupled and have more than tripled for people ages 12-19 within the past 30 years (15). A study done by Joens-Mare et al. measured the differences in physical activity and physical fitness between rural and urban children and the prevalence of children. The study showed
that rural children had a higher mean body mass index than children from urban areas and 1.47 times more likely to be categorized as overweight (7).

Physical activity is an important factor in the control and prevention of obesity and chronic disease. Barriers to physical activities in rural areas can include many things. Osuji addressed the barriers to physical activity among women in the rural Midwest. Those barriers included personal barriers, such as lack of time, lack of motivation, no interest, and lack of support (10).

It is important to gain an understanding of wellness and how it has been defined to gain an understanding of how people may perceive their wellness or overall health.

**Wellness Defined**

Wellness is defined by the National Institute for Wellness as an active process through which people become aware of, and make choices towards, a more successful existence (9). “Wellness is the optimal state of health of individuals and groups” (13, p. 6). Wellness is often described using dimensions of wellness and may include: Physical, Spiritual, Psychological, Social, Emotional and Intellectual. When researching wellness, one may find many definitions and many variations to wellness. Adams describes wellness using a wellness model that is visually a cone shaped and spiral moving object. The top of the model representing being well because it is expanded and the bottom of the model as being ill as its tight and restricted symbol may represent (22). Adams goes on to explain the wellness model as having movement in every dimension of wellness and influenced by other dimension movements.
Physical wellness can be described as maintaining regular physical activity, good nutrition, avoiding bad habits, proper self-care, and using safety with other things within your physical environment such as seat belt use, injury prevention, and so on. Physical wellness includes physical fitness which improves cardiovascular condition, increase in muscular strength and endurance, increase flexibility and maintain a healthy body composition. Physical wellness has also been defined as a positive perception and expectation of physical health (22). Positive perceived health has been associated with higher levels of physical activity and less association with musculoskeletal diseases (23).

Spiritual wellness is the purpose or value that you place on your existence. It is finding harmony or inner peace with your beliefs, ethics, values, and the rest of the world. Spiritual wellness can give you hope and direction in your life (41).

Psychological wellness can be defined as how one perceives positive or negative outcomes to events in their life. Psychological wellness refers to having optimism that situations will produce a positive outcome (40).

Social wellness can be described as our interaction with all things including other people and the world around us. Social wellness may include being outgoing, friendly, and feeling affectionate towards others and our surroundings. Social wellness can develop positive attitudes and a strong support system. It has been further described as having support from our family and friend in time of needs and being a supporter (22). There has been much research done on the value of social support and its association with health.

Emotional wellness can be described as controlling and coping with your personal emotions. To be well emotionally, one should be able to freely express their state of emotion.
comfortably and appropriately. Emotional wellness can create positive self-image, optimism, and comfort. Self-esteem is a major component of emotional wellness and one of the strongest indicators of well-being (39).

Intellectual wellness can be described as maintaining a positive attitude, reacting to situations appropriately and in an optimistic manner. It may also be described as being intellectually stimulated and learning from your surroundings to build on and create potential opportunity for additional knowledge. Mental wellness can lead a person to critical thinking and creativity, setting educational goals, and being aware of opportunities. Adams has described intellectual wellness as “the perception of being internally energized by an optimal amount of intellectually stimulating activity” (22). Research has suggested that intellectual stimulation can affect health and that moderate amounts of intellectual activity are most favorable (38).

Wellness is multi-dimensional and a continuum of self-care. Working towards optimal wellness can be done in many ways and seems to commonly overlap dimensions. In other words, when a person may be doing an exercise routine on a regular basis, they may become more emotionally or mentally well. This case study will primarily focus on the physical dimension of wellness specifically being enhanced through facility and programming, keeping in mind that with increase awareness and improved physical wellness, one may improve other dimensions of wellness.
Chapter 3: Case Study

Introduction

The hypothesis of the research that was conducted for the following case study is that one would have an improved perception of their own wellness, therefore a high-quality or increased level of wellness when actively participating in wellness programming and services available to them. As the review of literature supported, there are prominent barriers to wellness and healthcare opportunities in rural areas. The case study surveys a sample population of current members and patrons of a wellness center in a small rural county. This chapter will describe the facility used in the case study, its services and programs, the demographics of the area, target market and demographics of current membership to gain a better understanding of the population served and how it attempts to meet the needs of the population.

Description of Facility

The facility, hereafter called wellness center, used by the sample population provides a clean and friendly environment with exercise equipment, programming and services to attempt to meet the wellness needs of the demographic population served. The center focuses on physical wellness through its equipment and programs, but also offers additional programming and services in an effort to incorporate other dimensions of wellness into an intervention plan to improve the overall wellness or health of individuals.

The facility is located in the county seat with a population of approximately 2300 people. A satellite location is available to members and is located eight miles from the
primary location. The satellite location serves an additional small rural town with a population of approximately 1300 people.

The wellness center includes commercialized cardiovascular equipment: treadmills, recumbent bikes, elliptical trainers, upright bikes, stair steppers, upper body ergometer bikes, rowing machines, seated stepper, and seated elliptical trainers. It also has commercialized strength equipment including selectorized strength equipment, dumbbells, barbells and cable strength machines.

Additional amenities of the wellness center include locker room service with showers, toilets, changing areas, and lockers; a lounge area or reception area with adequate seating, magazines, wellness material, and a welcoming environment; a snack/juice bar serving smoothies, meal replacement shakes, protein shakes, bars, juices, water, and other nutritional snack items; indoor tanning beds, large group fitness room/multipurpose room, and other type of training equipment such as large and small exercise balls, jump ropes, suspension training, BOSU trainer, exercise mats, slide trainer, medicine balls, and kettlebells. In addition, the facility has recently added an infrared sauna and collaborates with the medical community to offer all members of the community the wellness benefits of infrared heat. The facility offers bicycle rentals to the community and visitors to the community.

**Description of Services**

Programs and services offered through the wellness center vary at times through the year depending on demand, seasonal programs, and collaborations with other organizations in the community. The programs and services offered include:
- Arthritis exercise classes (PACE: People with Arthritis Can Exercise) for people with joint and arthritic pain, fibromyalgia, or deconditioned people.
- Senior or Older Adult Programming including senior strength training, senior lifestyle therapy, and educational sessions on the benefits of wellness programming.
- Cardiac Rehabilitation Phase III with a referral from medical community after the patient has successfully completed Cardiac Rehab Phase II.
- Individual exercise prescription including individual personal training sessions.
- Clinical Exercise/Post Rehabilitation training after medical referral is received.
- Women’s strength training to teach women the basics of strength training and the importance of strength training for women to prevent osteoporosis and maintain healthy body weight.
- Group fitness classes including low impact, step, toning, kickboxing, and others.
- Weight management programming for all ages.
- Lifestyle Therapy and wellness programs including topics of wellness discussions, roundtable discussion, and professional speakers.
- Nutritional consultations to calculate resting energy expenditure and calories to lose or gain weight or maintain weight.
- Fitness assessments including body composition testing, flexibility testing, cardio respiratory testing, and muscular strength/endurance testing.
- Body composition testing using the skin fold method to calculate lean and fat body weight.
- Stress management programming with educational material and relaxation methods taught to participants.
- Mind-Body/Spirit programming such as group Yoga and Pilates classes and individual Pilates training.
- Massage Therapy including deep tissue, relaxation, reflexology, aroma therapy, and other.
- Back/Musculoskeletal strengthening and management classes for small groups.
- Cardio circuit training for targeted populations that are limited on time and includes 30 minutes of strength and aerobic conditioning.
- Children’s & Families Fitness Programs
  - Grades 4-6 learn the importance of staying fit and fun games/activities to promote health and fitness
  - Grades K-3 has structured parent and child fitness activities and learns the importance of fitness and health.
  - Parent and me classes targets the toddler age or ages 2-5 and do movement to music with an educational component for parents to learning about healthy and active living.
  - Children’s after school programming involves art/craft activities and fun play with children’s toys to initiate fun and movement and a wellness educational component.
• Children in 7-12 grades are offered aerobic classes, strength training classes, and athletic team strength training.

• CPR/First Aid Certification classes are taught throughout the year to certify people in Community CPR and First Aid through Red Cross standards.

• Child care hours available depending on demand and parent involvement.

• Tae Kwon Do and other martial arts classes are available throughout the year.

• Developmentally disabled exercise programming includes exercise activities for the developmentally disabled people within the communities.

• Support groups are coordinated and use of multi-purpose room to provide educational information and presentation on specific topics including Arthritis, Fibromyalgia, Anxiety/Depression, Osteoporosis, Heart Disease, etc.

• Bicycle rentals and group bicycle classes are offered.

• Individualized infrared sauna therapy treatments are available.

• Worksite wellness programs are available upon demand and are led by the certified staff.

• Transportation arrangements are done by staff for those in need.

Programs and services may change and additional programs may be implemented as needs and demands are initiated by the population or as additional collaborations with other community organizations are formed. The wellness center attempts to meet the demands of all populations within their professional’s scope of practices, funding available and time allowed with current management and staff.
The management and staff may also be able to provide additional outreach type services such as seminars, on site fitness assessments, corporate fitness/incentive packages, and other miscellaneous services that promote wellness to the rural community.

The programs a rural facility provides should be unique to the area and not try to compete or replicate other programs within the same community. Similar programs may be offered in other areas and larger nearby communities but may not be adequately serving the immediate population (5). It is important to consider other businesses and organizations in a rural area that are promoting similar services and reaching out to the same customers and prospects. Collaboration and partnerships should be developed to provide programs and services effectively to the population. An outline of possible programs and services during a calendar year are shown in Appendix A.

**Demographics of Area**

The demographics of the primary area the wellness center serves has been collected from data of the County 2000 Census and is reflected in Table 3.1 (29).

The county is made up of 10 cities and 20 townships.

**Table 3.1: County 2000 Census**

<table>
<thead>
<tr>
<th>Total Population of County</th>
<th>Number</th>
<th>Percent</th>
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<tbody>
<tr>
<td>Male</td>
<td>5530</td>
<td>49.2</td>
</tr>
<tr>
<td>Female</td>
<td>5706</td>
<td>50.8</td>
</tr>
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<table>
<thead>
<tr>
<th>Age</th>
<th>Number</th>
<th>Percent</th>
</tr>
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<tbody>
<tr>
<td>15 and under</td>
<td>2172</td>
<td>19.3</td>
</tr>
<tr>
<td>16-24</td>
<td>1376</td>
<td>12.2</td>
</tr>
<tr>
<td>25-44</td>
<td>2595</td>
<td>23.1</td>
</tr>
<tr>
<td>45-64</td>
<td>2676</td>
<td>23.8</td>
</tr>
<tr>
<td>65+</td>
<td>2417</td>
<td>21.5</td>
</tr>
</tbody>
</table>
The Target Market

The target market the wellness center services are all populations in the county and outreaching to all cities and townships within the county. Some programming and services are extended and marketed to populations outreaching to a 30-40 mile radius of the county, depending on access to other facilities and programming. Populations for surrounding counties of the wellness center county are found in Table 3.2 below.

Table 3.2: Populations of Surrounding Counties

<table>
<thead>
<tr>
<th>Populations for Surrounding Counties:</th>
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<tbody>
<tr>
<td>County One</td>
</tr>
<tr>
<td>County Two</td>
</tr>
<tr>
<td>County Three</td>
</tr>
<tr>
<td>County Four</td>
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</table>

The wellness center requires support by all facets within the community. Special attention is given to all groups including, but not limited to, youth, elementary and high school students, adults, seniors, families, social groups, and those with health conditions. Specific promotions and marketing is tailored to each group specifically.

More specific target markets include referrals from local physical therapists, chiropractors, and doctors. The local medical community supports the idea of a wellness center and the professionalism and programs that the facility is able to provide. Every age group and gender is targeted for specific programs that are offered (6). A summary of a tentative programming calendar for any given year is outlined in Appendix A. The
programming calendar gives suggestion as to what the wellness center may offer and promote to the population or targeted populations during a certain time of the year.

**Marketing Programs and Services**

The wellness center uses positioning strategy as a marketing technique that is important for all businesses, but especially for small businesses like a rural wellness center, that lack the depth of resources. Positioning is a method to determine what the unique selling proposition is or market niche the business should fill and how it should promote its products and services in light of competition (26).

Target promotion is the most cost effective marketing technique for a small business. Techniques the wellness center uses for target promotion includes the use of a logo, mission statement, signs, local newspapers, local radio stations, flyers, and public appearances and educational seminars by a representative of the wellness center (6).

The wellness center sets high standards for customer service and customer appreciation to strive for a high retention rate. Maintaining current members and patrons is of particular importance in a rural setting as there are already a low number of people that are potential members or patrons. The wellness center ensures customer satisfaction by using direct contact with the person such as free orientations, follows up phone calls or emails, newsletters, and continued support from the professional staff.

**Demographics of Membership**

The current membership base at the wellness center is approximately 250 members between the primary and satellite locations. Membership fluctuates monthly due to the different type of membership held by each person. The average number of each membership
type is shown in Table 3.3. The gender of members is approximately 60% female and 40% male.

<table>
<thead>
<tr>
<th>Membership Type</th>
<th>Number</th>
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<tbody>
<tr>
<td>Annual Individual</td>
<td>130</td>
</tr>
<tr>
<td>Annual Family</td>
<td>20</td>
</tr>
<tr>
<td>Annual Students</td>
<td>10</td>
</tr>
<tr>
<td>Annual Seniors</td>
<td>40</td>
</tr>
<tr>
<td>3-Month</td>
<td>25</td>
</tr>
<tr>
<td>Monthly</td>
<td>25</td>
</tr>
</tbody>
</table>

**Table 3.3: Membership Types**

Facility Consideration

Wellness Centers are currently considered an unlicensed business or organization, however, with the wellness and health industry growing it may soon become recognized as needing regulatory requirements. Fitness/Health facility standards and guidelines have been established by the American College of Sport Medicine (28) and the National Strength and Conditioning Association (29) and have been adapted by the wellness center focused in this study and should be considered for all wellness and fitness centers that offer equipment, services and programs that are open and offered to the general public.

Facility standards and guidelines that have been developed and followed by the wellness center involved in this case study are listed in Appendix B and are broken up into categories of risk management and safety, facility and exercise equipment, and written policy and forms (Appendix C).

**Summary**

The wellness center involved in this particular case study is well established with a good reputation and professional staff to ensure quality and safe programs for the community.
The information in this chapter provided the background on the programs and services available to people in this rural area that may act as an intervention to increase individual awareness of wellness and overall increase wellness. In the next chapter, we will discuss the methods used in surveying a sample population of the wellness center to determine their current wellness perception.
Chapter 4: Research Design and Methodology

Introduction

It is evident that we are unable to predict human health or wellness despite the many models that have been developed in an attempt to better understand human health and its variables. Wilson and Clearly (17) included several components such as physiological, biological, symptoms, functional status, and health perceptions in an attempt to represent the integration of health. They concluded that the perception of each individual has a strong impact on health and wellness.

In this chapter we will describe the methods used to survey the sample population of the wellness center previously described. The tool used to survey the sample was the Perceived Wellness Survey created by Troy Adams, PhD (22) and is represented in Appendix E.

Design

A convenience sampling method was used to recruit participants for the research. Participants were current members and patrons of the wellness center described in the previous chapter. The convenience sampling method allowed for an inexpensive way to collect approximate information to be used to explore the perceived wellness of current and active members.

Sample Population

Sample population was current members and patrons of the wellness center. Sample demographic information varied in range and was not directly used in the perceived wellness survey but used to gain a better understanding of the sample and has been represented in
Appendix D. The ages of participants ranged from 20-70 years of age; participants ages 20-30 (n = 5; 8.3%), ages 31-40 (n = 10; 16.6%), ages 41-50 (n = 12; 20%), ages 51-60 (n = 17; 28.3%), ages 61-70 (n = 11; 18.3%), and age 71 and older (n = 5; 8.3%). The samples were divided with respect to gender as follows, 28.3% (n = 17) Males and 71.6% (n = 43) Females. Employment, Health Insurance, Education, and Income was also asked of sample, but not used in conjunction with the perceived wellness survey. The demographic information gathered was to better understand the sample and used for further discussion.

Employment of sample was as follows; Employed (n = 41, 68.3%), Unemployed (n = 0, 0%), Retired (n = 14, 23.3%), Disable (n = 1, 1.6%), Student (n = 1, 1.6%), and other (n = 3, 5%). Health Insurance or medical coverage of sample was as follows; n = 58 (96.6%) had health or medical coverage and n = 2 (3.3%) did not have health or medical coverage.

Education levels of the sample were also asked during the survey. The education of sample is as follows; twelve years of education (n = 8, 13.3%), thirteen years of education (n = 14, 23.3%), fourteen years of education (n = 10, 16.6%), fifteen years of education (n = 8, 13.3%), sixteen years of education (n = 8, 13.3%), seventeen years of education (n = 2, 3.3%) and eighteen or more years of education (n = 10, 16.6%). The final demographic information asked of the sample was level of income. The income levels of sample are as follows; under $10,000 annual (n = 1, 1.6%), $10-$20,000 annual (n = 3, 5%), $21-$30,000 annual (n = 4, 6.6%), $31-$40,000 annual (n = 7, 11.66%), $41-$50,000 annual (n = 6, 10%), over $50,000 annual (n = 30, 50%), and unknown or not specified (n = 9, 15%).

All members of the wellness center had an opportunity to participate in the study, however; the survey was directly given by email, postal mail, or hand delivered to 75
members. Incentive to complete and return the survey was a free two week membership to the facility. Of the 75 surveys directly given, 60 people completed the survey. The participants were given two weeks to complete and return the survey. The survey was completed at the participant’s leisure and is unknown under what conditions the survey was being taken.

**Measures**

The sample completed the Perceived Wellness Survey, a 36-question survey, developed by Troy Adam, PhD. The perceived wellness survey is a multidimensional measure of perceived wellness perceptions in the physical, intellectual, psychological, social, spiritual and emotional dimensions of wellness (22). Items from the survey are directed such as “In the past, I have expected the best,” “I believe there is a real purpose for my life”, and “I expect to always be physically healthy”, to mention a few.

“The Perceived Wellness Survey is a salutogenically-orientated, multidimensional measure of perceived wellness perceptions in the physical, spiritual, psychological, social, emotional and intellectual dimensions” (22, p. 8). The dimensions of wellness are scored from 1 being “Strongly disagree” to 6 being “Strongly agree”. The scores are integrated by combining the mean of each dimension with the standard deviation among the dimensions or subscales and 1.25 to prevent a statistical deviation of “0” as a wellness composite score. The scaled and scoring procedures are included in Appendix G (22).

The Perceived Wellness Survey was also intended to be able to use each subscale independently to assess each dimension of wellness. This type of use may be beneficial for practitioners to be able to assess individuals in each area of wellness and use it in part to assess pre and post wellness when an intervention is involved.
A Likert scale rating was used to gain an understanding in the sample population’s perception of their own wellness in all six dimensions prior to regular use of the wellness center and/or wellness programs. The survey included definitions of each dimension of wellness as described by Adams in order to provide the sample with an understanding of what is being measured. Since a post assessment using the perceived wellness survey is not used for this study, it is important to generalize the sample perception of wellness in each dimension. The survey used for perceived wellness prior to physical activity is represented in Appendix F.

**Scoring**

Each survey was scored individually giving value to the assigned number. Fifteen of the thirty-six questions were reversed scored. The sum of all the subscales were added and divided by six to get the mean score of the particular dimension of wellness. The xbar was calculated by the magnitude or the sum of all the subscale mean scores divided by six. For each subscale or dimension, the deviation was calculated by subtracting the xbar value from the mean and squaring the number. The sum of all subscale deviations was divided by five to get the variance. To calculate the balance, the square root of the variance was computed and 1.25 added to the number. The overall wellness score or composite score was calculated by dividing the magnitude by the balance.

**Analysis**

The wellness scores from the sample ranged from 10.792 to 25.947 with an average wellness score of 16.547 for the sample population. The scores are meaningful for an individual after they have taken the perceived wellness survey again as a post assessment after
intervention. This approach is one of ipsative rather than normative. A norms table to compare scores to an average would be philosophically inconsistent. “How can we sanctimoniously apply absolute standards of wellness in a relative world?” (22, p.1). Dunn (24) kept his definition of wellness to that of an individual signifying that wellness is unique to an individual.

It can be assumed that the lower the wellness score compared to that of higher scores, the individual is less well. If intervention is part of an individual wellness plan or program, the perceived wellness survey may be given as a post assessment and one would want to see a higher wellness score as a positive influence on perceived wellness.

The mean scores of each dimension for the sample population are shown in Table 4.1. The lowest scored dimension is physical with an average of the population at 4.47 and the highest scored dimension being spiritual with an average score of 4.93 for the sample. This information can be generalized in saying that the sample of the population perceives their physical wellness as not being as well as their spiritual and other components of wellness.

Table 4.1: Average Wellness Scores

<table>
<thead>
<tr>
<th>Mean Scores of Each Dimension</th>
<th>Average Score of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychological Mean of Sample</td>
<td>277.00</td>
</tr>
<tr>
<td>Emotional Mean of Sample</td>
<td>277.50</td>
</tr>
<tr>
<td>Social Mean of Sample</td>
<td>290.00</td>
</tr>
<tr>
<td>Physical Mean of Sample</td>
<td>268.67</td>
</tr>
<tr>
<td>Spiritual Mean of Sample</td>
<td>295.83</td>
</tr>
<tr>
<td>Intellectual Mean of Sample</td>
<td>277.50</td>
</tr>
</tbody>
</table>
It can be assumed that the lower the wellness score compared to that of higher scores, the individual is less well. If intervention is part of an individual wellness plan or program, the perceived wellness survey may be given as a post assessment and one would want to see a higher wellness score as a positive influence on perceived wellness.

The Likert scale used to assess the sample’s perception of their wellness in each dimension prior to regular use of the wellness center and its programs can help us understand a previous perception of wellness. The scale used a rating of 1 as being “Not Well” and 6 being a score of “Well”. The scores of the sample population are shown in Table 4.2.

Table 4.2: Rating of Perceived Wellness Prior to Intervention

<table>
<thead>
<tr>
<th></th>
<th>Not Well</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>%</td>
<td>2</td>
<td>%</td>
<td>3</td>
<td>%</td>
<td>4</td>
<td>%</td>
<td>5</td>
</tr>
<tr>
<td>Physical Wellness</td>
<td>3</td>
<td>5.0</td>
<td>5</td>
<td>8.33</td>
<td>6</td>
<td>10.00</td>
<td>24</td>
<td>40.0</td>
<td>20</td>
</tr>
<tr>
<td>Spiritual Wellness</td>
<td>1</td>
<td>1.67</td>
<td>3</td>
<td>5.00</td>
<td>7</td>
<td>11.67</td>
<td>18</td>
<td>30.0</td>
<td>14</td>
</tr>
<tr>
<td>Psychological Wellness</td>
<td>0</td>
<td>0.00</td>
<td>3</td>
<td>5.00</td>
<td>3</td>
<td>5.00</td>
<td>19</td>
<td>31.67</td>
<td>27</td>
</tr>
<tr>
<td>Social Wellness</td>
<td>0</td>
<td>0.00</td>
<td>0</td>
<td>0.00</td>
<td>6</td>
<td>10.00</td>
<td>16</td>
<td>26.67</td>
<td>27</td>
</tr>
<tr>
<td>Emotional Wellness</td>
<td>1</td>
<td>1.67</td>
<td>2</td>
<td>3.33</td>
<td>5</td>
<td>8.33</td>
<td>14</td>
<td>23.33%</td>
<td>29</td>
</tr>
<tr>
<td>Intellectual Wellness</td>
<td>0</td>
<td>0.00</td>
<td>2</td>
<td>3.33</td>
<td>4</td>
<td>6.67</td>
<td>16</td>
<td>26.67</td>
<td>28</td>
</tr>
</tbody>
</table>

The sample population scored their wellness in each dimension fairly evenly between the mid to high range ratings of four and five in most dimensions. The sample population had 40% of the population rating their physical wellness prior to regular use of wellness center as a 4 on the scale. Thirty percent of the population scored their spiritual wellness as a 4 and the other dimensions had a higher scale rating at 5 with 45% of population rating psychological wellness as a 5, 45% of population rating social wellness as a 5, 48% of population rating
emotional wellness as a 5, and 46.6% of population rating intellectual wellness as a 5 on the scale from 1 to 6.

The data gathered from the Likert scale can be assumed at best. The assumption of the information is one that the sample population perceived their physical and spiritual wellness as fair to good, but less than that of the other dimensions including psychological, emotional social, and intellectual which more of the population scored at a higher rating.

**Summary**

The data gathered allowed us to be able to discriminate between those with high and low levels of perceived wellness. It is difficult to make a comparison with the Likert scale of rating ones perceived wellness prior to use of the facility and the scored data collected from the perceived wellness survey. The level of physical and spiritual wellness was scored higher on the perceived wellness survey than that of the other dimensions and was rated on a lower level of perceived wellness compared to the other dimensions on the Likert scale used to measure perception of wellness prior to use of the wellness center. The perceived wellness survey can be used with the sample population after a period of time and continued use of recreation facility and programming to further understand and interpret perceived wellness after intervention.
Chapter 5: Summary and Discussion

Introduction

The study has revealed measurements of a sample population that is involved in a recreation facility and programming located in a rural area. In this chapter we will further summarize and discuss the information involved in this case study and provide recommendations and significance for change.

Critique

There is little to no research that has been done to correlate a relation between the utilization of recreation facility and programming in rural areas as an intervention to increase perceived wellness or overall wellness and health of individuals in rural America. The Healthy People 2010 initiative and the Rural Healthy People 2010 have brought about an increase awareness of the importance of improving health and the existing barriers that may exist to improving health. Healthy People 2010 built on initiatives pursued over the past two decades and the goals are to increase quality and years of healthy living and to eliminate health disparities. Objectives were developed with 28 focus areas and leading health indicators to encourage wide participation in improving health this past decade (27). Because this initiative is nationwide, the achievement is dependent in part on the health agencies of all levels.

The study addressed in this paper represents an intervention type facility and programming that could be considered as one of which is attempting to meet some of the objectives established by Healthy People 2010. Interventions such as this should be considered in rural areas such as the county used in this study. It could also show as proof that
additional collaboration with public health and other health organization in rural counties must be initiated and developed further in an attempt to achieve the objectives.

The wellness survey used for the study and the wellness model and definitions as described by Adams (22), are useful as a conceptual guideline. Intervention programs may focus on different dimensions of wellness and may target different populations, but wellness is an interaction of all dimensions and how they are individually perceived.

The study had some limitations associated, but not directly factored into the scoring. The sample population used in this study was directly given the survey and consisted of regular users of the facility and programming. This sample may not accurately reflect a sample of the current membership of the facility or represent the rural demographic area that the facility is available, but rather those who are already using the facility and programming and may perceive their wellness as higher than those who do not use the facility regularly.

Other limitations to the study would be accounting for cultural or environmental factors (37, 38). Wellness may be better explained when factoring in some of these things or a broader system. This case study collected demographic information to better understand the population, however, the perception of wellness between age, gender, and economic status could be vast.

**Recommendations**

Additional research is needed to develop assessment tools for measuring the effect of intervention programs on the overall perceived wellness and measured health of individuals. Measuring wellness should factor in for age, gender, economic status and other factors that
may affect the perception of each wellness dimension. This would be very challenging to accomplish.

The Perceived Wellness Survey subscale and composite scores is a useful tool for assessing individual perceived wellness and can be used by health professional to assess the dimensions of wellness separately and as a comparison after an intervention has been implemented. A normative scale would be convenient to display and explain the wellness subscale and composite scores in comparative to a norm or number that is considered well or not well in its dimension. As Adams pointed out in his article; “The Conceptualization and Measurement of Perceived Wellness: Integrating Balance Across and Within Dimensions”, individuals interpret information in many different ways. This wellness perception would be a positive contribution to the overall model of health (22).

Additional research to determine the potential lack of resources to improve health and wellness in rural areas would be helpful to find out the needs in each area. This information would provide valuable insight for the communities to try and establish community based programs specific to their needs or to decrease barriers to the resource.

This information may also be helpful to develop collaborative efforts within rural areas and work together or become more unified towards a common goal.

It is recommended that additional research be done to further provide evidence of the resources needed in rural areas to achieve better health and wellness and providing support for the removal of barriers to achieving better health of people in rural areas. Further research to develop assessment tools to measure outcomes of overall health and wellness prior to and after intervention type programming would be beneficial.
Significance for Change

Wellness and health interventions hold a great potential if used properly and targets the population in need. The healthcare system is currently reactive in nature and responds to the health and wellness of our population after disease has been diagnosed.

The increased awareness of getting people healthy has proved for the significance in change needed and potentially even more so in rural areas due to existing barriers that research as shown.

Change needs to occur in rural areas to be able to better serve the populations as intervention from being ill or lack of wellness. This change can be many things but because of the lack of resources commonly associated with rural areas, it is important that there is collaboration at a local level and initiative brought about at the local level to bring change in current wellness and health of the population served.

Concluding Remarks

The practical implications of wellness as an intervention are many. There is much evidence that supports wellness interventions such as increased physical activity, nutritional consulting, and educational programs as being a positive influence on overall health of the participant. Unfortunately, there seems to be many barriers that still exist in rural areas and even though the population may have opportunity to participate in a wellness program, they often do not due to various reasons.

The continued education on wellness and health of our populations needs to continue and even be more prominent. People need to understand the importance of preventive or
proactive approaches to their health instead of being reactive. Individuals need to be more aware of their current wellness and take responsibility for their health.
References


Appendix A: Programming Calendar

January
New Year’s Eve Promotions
New Years Resolutions: discount on personal training packages
Weight Management Programming: 8-12 week incentive programming
Teacher Workshop Day (Children’s programming during day off of school)
Senior Strength Class (4 weeks/8 sessions)
Women’s Strength Class (4 weeks/8 sessions)
Aerobic Classes-ongoing
Arthritis Aquatic Classes-ongoing
Personal Training/Fitness Assessments-ongoing

February (National Heart Health Month)
Heart Healthy Seminars
Cardiac Rehab Phase III
CPR/First Aid Certification class
Cardio Challenge-Incentive programs for members
Valentine’s Day Specials
Aerobic Classes-ongoing
Arthritis Aquatic Classes-ongoing
Personal Training/Fitness Assessments-ongoing

March
Spring Break-Children’s programming on non-school days
Nutritional Consultations: Individual consultations to calculate their resting energy expenditure and calories to lose or gain weight or maintain weight.
Nutritional Seminars and meal planning
CPR/First Aid Certification class
Aerobic Classes-ongoing
Arthritis Aquatic Classes-ongoing
Personal Training/Fitness Assessments-ongoing
Developmentally Disabled exercise programming (4 week/8 sessions)

April
Senior Strength Class (4 weeks/8 sessions)
Women’s Strength Class (4 weeks/8 sessions)
Aerobic Classes-ongoing
Arthritis Aquatic Classes-ongoing
Personal Training/Fitness Assessments-ongoing
PACE (People with Arthritis Can Exercise): 8 week program
Pilates classes: 6 weeks/12 sessions
Back/Musculoskeletal Management/Strengthening: 4 sessions
Cardio Circuit Training: 30 minute strength and aerobic group fitness class
May
Senior Health & Fitness Day (last Wednesday of the month)
Health Fair
Aerobic Classes-ongoing
Arthritis Aquatic Classes-ongoing
Personal Training/Fitness Assessments-ongoing
Promote Summer membership special (3 month special)
CPR/First Aid class

June
Aerobic Classes-ongoing
Arthritis Aquatic Classes-ongoing
Personal Training/Fitness Assessments-ongoing
Yoga class: 6 weeks/12 sessions

July
Aerobic Classes-ongoing
Arthritis Aquatic Classes-ongoing
Personal Training/Fitness Assessments-ongoing
Family fitness classes: 4 sessions
Children’s programming
Beat the Heat Fitness promotion

August
Aerobic Classes-ongoing
Arthritis Aquatic Classes-ongoing
Personal Training/Fitness Assessments-ongoing
Athletic team training (Volleyball and football preseason strengthening)

September
Aerobic Classes-ongoing
Arthritis Aquatic Classes-ongoing
Personal Training/Fitness Assessments-ongoing
Women’s Strength Class (4 weeks/8 sessions)
National Women’s Health & Fitness Day (last Wednesday of the month)
Cardiac Rehab Phase III
National Family Health & Fitness Days (last weekend in September)

October
National Breast Cancer Awareness Month
Senior Strength Class (4 weeks/8 sessions)
PACE (People with Arthritis Can Exercise): 8 week program
Weight Management Programming: 8-12 week incentive programming
Aerobic Classes-ongoing
Arthritis Aquatic Classes-ongoing
Personal Training/Fitness Assessments-ongoing
Halloween promotions

November
Aerobic Classes-ongoing
Arthritis Aquatic Classes-ongoing
Personal Training/Fitness Assessments-ongoing
CPR/First Aid class
Stress Management classes: 3 sessions
Children’s/Family programs: No school days
Thanksgiving Promotions

December
Aerobic Classes-ongoing
Arthritis Aquatic Classes-ongoing
Personal Training/Fitness Assessments-ongoing
Children’s programming-Christmas break
Christmas promotions
Membership drive begins
Appendix B: Facility Standards and Guidelines

Risk Management and Safety

1. Facility is accessible by all people and will not discriminate against in anyway. Facility should ensure compliance with applicable requirements of the Americans with Disabilities Act.

2. Facility will ensure that there is adequate parking for all members and designated handicap parking available with proper signage that is clearly visible.

3. Members with disabilities will have equal access to the facility.
   a. Doors, entryways, and exits will have a minimum of 36 inches wide.
   b. Elevation changes will provide a ramp or slope of 12 inches for every inch in elevation.
   c. Light switches, water fountains, reception desk, fire extinguishers will be at a height to be able to reach from a wheelchair.

4. Facility will post appropriate signage.
   a. Entrance and exits signs to be used for facility will be clearly marked.
   b. Caution, danger, or warning signs will be clearly posted in conspicuous areas if needed.
   c. Information on emergency phone, fire extinguishers, and first-aid supplies are clearly marked.
   d. Facility hours of operation or staffed hours are posted.
   e. Inherent risks and procedures for members to follow in case of an emergency are communicated to members.
5. All areas of the facility will be kept clean, well-maintained, and well-lit.
   a. Facility has a weekly cleaning schedule and documentation of completion is kept.
   b. Facility maintains proper air temperatures and ventilation.
   c. Facility maintains adequate lighting.
   d. Floor surfaces are cleaned and dry to minimize risk of injury.
   e. Facility wall surfaces are kept free of clutter or protrusions in activity areas.

6. Fire extinguishers are available and inspected monthly by staff and annually by professionals. The inspections are documented.

7. Information on cleaning supplies and other chemicals in facility is listed and available on Material Safety Data Sheets (MSDS).

8. A written emergency response to a public access defibrillator is in place and practiced by staff.

9. First-aid supplies are checked weekly and recorded.

10. All staff is certified in CPR (Cardio Pulmonary Resuscitation)

Facility and Exercise Equipment

1. Facility has sufficient quantity and quality of equipment available to meet their mission.

2. A preventive maintenance schedule for equipment is completed and documented.
   a. Preventive maintenance for resistance and cardiovascular training should include daily, weekly and monthly care of the equipment.
   b. Facility should follow the manufacturer’s suggested guidelines for maintenance.

3. Equipment should be set up and assembled according to the manufacturer’s guidelines with proper signage, instruction cards, warnings or notices for members.
a. Safety check should be completed prior to initial use.

b. Safety checks should be completed weekly and documented.

4. Faulty equipment must be removed from service immediately or proper signage to communicate to members.

Written Policy and Forms

1. Facility will ensure confidentiality of member information.

2. Facility has a written policy for handling of any hazardous material or bodily fluids.

3. Facility has a medical emergency policy in place with written procedures and documented practice.

4. Facility has a non-medical emergency policy and appropriate forms.
   a. Procedures are in place to handle fire, power outages, and severe weather.
   b. Facility requires incident and injury reports to be completed within 24 hours of an injury or incident occurring.
   c. Facility uses waiver of liability forms upon use of facility.
      i. Waiver of liability should be in a minimum of 14 point font with a font type of Times New roman and the word Waiver is capitalized and bolded. (Appendix C)
      ii. Membership forms need to include the member’s right to cancel in 14 point font and bolded. (Appendix C)
Appendix C: Waiver and Member Right to Cancel

**WAIVER:** It is expressly agreed that all exercises and treatments and use of all facilities shall be undertaken by member or guest at member or guest’s sole risk and that Wellness Center shall not be liable for any claims, demands, injuries, damages, actions or causes of action, whatsoever to member or guest or property arising out of or connected with the use of any of the services and facilities of Wellness Center or the premises where same are located, and member or guest, and member or guest’s heirs, administrators, executors or assigns, do hereby expressly forever release and discharge Wellness Center, its owners, managers, employees, agents, members, representatives and assigns from all such claims, demands, injuries, damages, actions or causes of action, and from all acts of active or passive negligence on the part of Wellness Center, its owners, managers, employees, agents, members, or representatives.

**Member’s Right To Cancel:** If you wish to cancel this agreement, you may cancel by delivering or mailing a written notice to Wellness Center. The notice must say that you do not wish to be bound by the contract and must be delivered or mailed before midnight of the third business day after you sign the agreement. The notice must be delivered or mailed to: Wellness Center at address. If you cancel, Wellness Center will return, within 10 days of the date on which you give notice of cancellation, any payments you have made.
Appendix D: Demographic Information of Sample

1. What is your age?
   - 20-30
   - 41-50
   - 61-70
   - 31-40
   - 51-60
   - 71 years old or more

2. What is your sex?
   - Male
   - Female

3. What is your current employment status? Please check one.
   - Employed
   - Unemployed, but seeking employment
   - Retired
   - Disabled
   - Student
   - Other

4. Do you currently have medical/health insurance coverage (for example, private insurance, HMO, Medicaid, Medicare, etc.)?
   - Yes
   - No

5. How many years of formal education have you completed?
   (Example, completed 6th grade=6 years; completed high school=12 years; one year of college=13 years; two years of college=14 years; etc.)
   - _______ Years

6. Which of the following income groups did your household income fall last year?
   Please check one.
   - Under $10,000
   - 10,000-20,000
   - 21,000-30,000
   - 31,000-40,000
   - 41,000-50,000
   - Over 50,000
   - Unknown or do not wish to specify
Appendix E: Perceived Wellness Survey

The following statements are designed to provide information about your wellness perceptions. Please carefully and thoughtfully consider each statement, and then select the one response option with which you most agree.

Very Strongly Disagree  Very Strongly Agree

1. I am always optimistic about my future.  1 2 3 4 5 6
2. There have been times when I felt inferior to most of the people I knew.  1 2 3 4 5 6
3. Members of my family come to me for support.  1 2 3 4 5 6
4. My physical health had restricted me in the past.  1 2 3 4 5 6
5. I believe there is a real purpose for my life.  1 2 3 4 5 6
6. I will always seek out activities that challenge me to think and reason.  1 2 3 4 5 6
7. I rarely count on good things happening to me.  1 2 3 4 5 6
8. In general, I feel confident about my abilities.  1 2 3 4 5 6
9. Sometimes I wonder if my family will really be there for me when I am in need.  1 2 3 4 5 6
10. My body seems to resist physical illness very well.  1 2 3 4 5 6
11. Life does not hold much future promise for me.  1 2 3 4 5 6
12. I avoid activities which require me to concentrate.  1 2 3 4 5 6
13. I always look on the bright side of things.  1 2 3 4 5 6
14. I sometimes think I am a worthless individual.  1 2 3 4 5 6
15. My friends know they can always confide in me and ask me for advice.  1 2 3 4 5 6
16. My physical health is excellent.  1 2 3 4 5 6
17. Sometimes I don’t understand what life is all about.  1 2 3 4 5 6
18. Generally, I feel pleased with the amount of intellectual stimulation I receive in my daily life.  1 2 3 4 5 6
19. In the past, I have expected the best.  1 2 3 4 5 6
20. I am uncertain about my ability to do things well in the future.  1 2 3 4 5 6
21. My family has been available to support me in the past.  1 2 3 4 5 6
22. Compared to people I know, my past physical health has been excellent.  1 2 3 4 5 6
23. I feel a sense of mission about my future.  1 2 3 4 5 6
24. The amount of information that I process in a typical day is just about right for me.  1 2 3 4 5 6
25. In the past, I hardly ever expected things to go my way.  1 2 3 4 5 6
26. I will always be secure with who I am.  1 2 3 4 5 6
27. In the past, I have not always had friends with whom I could share my joys and sorrows.  1 2 3 4 5 6
28. I expect to always be physically healthy.  1 2 3 4 5 6
29. I have felt in the past that my life was meaningless.  1 2 3 4 5 6
30. In the past, I have generally found intellectual challenges to be vital to my overall well-being.  1 2 3 4 5 6
31. Things will not work out the way I want them to in the future.  1 2 3 4 5 6
32. In the past, I have felt sure of myself among strangers.  1 2 3 4 5 6
33. My friends will be there for me when I need help.  1 2 3 4 5 6
34. I expect my physical health to get worse.  1 2 3 4 5 6
35. It seems that my life has always had purpose.  1 2 3 4 5 6
36. My life has often seemed void of positive mental stimulation.  1 2 3 4 5 6
Appendix F: Perceived Wellness Prior to Physical Activity or Wellness Programming

In general, how would you rate your overall wellness in each area prior to regular use of wellness center or other wellness activities/programs you have been actively involved in?

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Not Very Well</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Very Well</th>
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<tbody>
<tr>
<td>Physical Wellness</td>
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<tr>
<td>Spiritual Wellness</td>
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<tr>
<td>Psychological Wellness</td>
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<td>Emotional Wellness</td>
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<tr>
<td>Intellectual Wellness</td>
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</tbody>
</table>

Definitions of the dimensions of wellness as described in the Wellness Model (22)

**Physical wellness** is defined as a positive perception and expectation of physical health.

**Spiritual wellness** has been defined as: a belief in a unifying force, an integrative force between the mind and body, or as a positive perception of meaning and purpose in life.

**Psychological wellness** is defined as a general perception that one will experience positive outcomes to the events and circumstances of life.

**Social wellness** is defined as the perception of having support available from family or friends in times of need and the perception of being a valued support provider.
**Emotional wellness** is defined as possession of a secure self-identity and a positive sense of self-regard, both of which are facets of self-esteem. Self-esteem is a major component of emotional wellness and is one of the strongest predictors of general well-being.

**Intellectual wellness** is defined as the perception of being internally energized by an optimal amount of intellectually stimulating activity. Researchers have suggested that intellectual overload and underload can adversely affect health.
Appendix G: Perceived Wellness Survey Research Scale Information and Instructions

The PWS items are numbered 1 through 36, but for ease of scoring they are numbered according to their respective subscale. (See above).

Psychological Items
PSY1 is #1. I am always optimistic about my future.
PSY2 is #7. I rarely count on good things happening to me.*
PSY3 is #13. I always look on the bright side of things.
PSY4 is #19. In the past, I have expected the best.
PSY5 is #25. In the past, I hardly ever expected things to go my way.*
PSY6 is #31. Things will not work out the way I want them to in the future.*

Emotional Items
EMOT1 is #2. There have been times when I felt inferior to most of the people I knew.*
EMOT2 is #8. In general, I feel confident about my abilities.
EMOT3 is #14. I sometimes think I am a worthless individual.*
EMOT4 is #20. I am uncertain about my ability to do things well in the future.*
EMOT5 is #26. I will always be secure with who I am.
EMOT6 is #32. In the past, I have felt sure of myself among strangers.

Social Items
SOC1 is #3. Members of my family come to me for support.
SOC2 is #9. Sometimes I wonder if my family will really be there for me when I am in need.*
SOC3 is #15. My friends know they can always confide in me and ask me for advice.
SOC4 is #21. My family has been available to support me in the past.
SOC5 is #27. In the past, I have not always had friends with whom I could share my joys and sorrows.*
SOC6 is #33. My friends will be there for me when I need of help.

Physical Items
PHYS1 is #4. My physical health has restricted me in the past.*
PHYS2 is #10. My body seems to resist physical illness very well.
PHYS3 is #16. My physical health is excellent.
PHYS4 is #22. Compared to people I know, my past physical health has been excellent.
PHYS5 is #28. I expect to always be physically healthy.
PHYS6 is #34. I expect my physical health to get worse.*

Spiritual Items
SPIR1 is #5. I believe that there is a real purpose for my life.
SPIR2 is #11. Life does not hold much future promise for me.*
SPIR3 is #17. Sometimes I don't understand what life is all about.*
SPIR4 is #23. I feel a sense of mission about my future.
SPIR5 is #29. I have felt in the past that my life was meaningless.*
SPIR6 is #35. It seems that my life has always had purpose.

Intellectual Items
INT1 is #6. I will always seek out activities that challenge me to think and reason.
INT2 is #12. I avoid activities which require me to concentrate. *
INT3 is #18. Generally, I feel pleased with the amount of intellectual stimulation I receive in my daily life.
INT4 is #24. The amount of information that I process in a typical day is just about right for me (i.e., not too much, not too little).
INT5 is #30. In the past, I have generally found intellectual challenges to be vital to my overall well-being.
INT6 is #36. My life has often seemed void of positive mental stimulation. *

Scoring Instructions
The methods below are based on the congruence to "wellness philosophy." It is important that they be followed. The scoring method is described step by step below. At the end of the instructions you will find the SPSS file used to score the PWS. You can download a sample SPSS file to play with. I have also included a syntax file. The easiest way to score the PWS is to open both the data file and the syntax file, highlight all the text in the syntax file, and then type Control+R (PC) or Command+R (Mac).

1. Score each item from 1, "very strongly disagree" to 6, "very strongly agree." No labels are applied to respond options 2-5. Items with * are reverse scored.
2. Sum all of the subscale means. The result is the Wellness Magnitude.
3. Divide Wellness Magnitude by 6. The result is called "xbar."
4. For each subscale, compute the following: (subscale mean - xbar)^2. The result is called subscale deviation.
5. Sum all of the subscale deviations, then divide the total by 5 (n-1). The result is called the variance. Compute the Wellness Balance with the following formula: (square root of the variance) + 1.25. The 1.25 is added to the denominator to prevent a Wellness Balance of 0 from creating an invalid Wellness Composite score.
6. Compute the Wellness Composite score with the following formula: Wellness Magnitude/Wellness Balance.

The Perceived Wellness Survey SPSS Scoring File
1. Sophisticated statisticians will recognize that there are quicker "more efficient" ways to do the statistics below. I continue to use the formula below because a) it helped my dissertation committee understand what I was doing, b) it has helped many readers comprehend how the philosophy and theory described in the paper can actually be translated into statistics, c) it is simple, and d) it works.
2. In this sample file, I use 6 columns for the ID field and then leave column 7 blank. Naturally, modifications will be needed to the column number if your data does not fit this format.
3. The variable "Wellness" is the primary variable of interest although you may also be interested in the subscales which are PSYWELL, SOCWELL, PHYSWELL, SPIRWELL, INTWELL, and EMOTWELL. However, I suggest that you check the subscale reliability before using the subscale scores.