

CLINICAL PRACTICE

Community Vitality: A Healthy Life for Everyone – Part 2: Resource Website Development

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ABSTRACT

Objective: A group of faculty from nursing, exercise science, nutrition, psychology, and occupational safety and health has been working on a four-part research project that investigates healthy lifestyles of centenarians in the world's Blue Zones. The project's aim is to educate people about concepts of centenarian lifestyles and compare and contrast with habits of Americans.

Methods: This four-part study includes resource website development, interviews with elderly people in the local community about lifestyles and habits, administration to local adults of a survey about barriers to healthy lifestyles, and education on findings in local elementary schools. The goal of this portion of the four-part study was to develop a website that provides easily accessible information for community members to learn about the Community Vitality project. In addition, community members can access resources related to movement (physical activity), rest (reducing stress, sleeping, and identifying life objectives), nutrition (eating a plant-based diet, intuitive eating, and drinking red wine), and connection (time with family and social groups). The website was created using multiple areas of expertise and includes resources in and around the local community that relate to these four major concepts. Ultimately, the researchers' goal is for community members to access and utilize the resources to learn about and practice healthy living.

Results: The website went live in January, 2022. The website URL has recently been shared with people of all ages in the community via social media and other outlets so that they have access to one location with recommendations for healthy living related to movement, rest, nutrition, and connections. The researchers plan to utilize student research involvement to keep the website and links current on a monthly basis as well as monitor number of views.

Conclusions: Blue Zones are areas of the world where there are more centenarians per capita than the rest of the world. In addition, they tend to be healthier than the elderly in the United States. This project aims to identify habits of local people and barriers to healthy living, and then educate people about healthy living and potential changes that can be made.

Key Words: Blue Zones, Health promotion, Website, Website development, Longevity, Interdisciplinary

1. INTRODUCTION

A group of university faculty from Nursing, Exercise Science, Nutrition, Psychology, and Occupational Safety and Health have been working on a four-part research project that began by investigating healthy lifestyles of centenarians in the world's Blue Zones. According to studies by National Geographic and other experts, areas known as "Blue Zones"

are locations where people live measurably longer, happier lives with lower rates of chronic disease and a higher quality of life than they do in the United States.^[1] The project's overall aim is to educate people about concepts of centenarian lifestyles and compare and contrast those lifestyles with habits of Americans, specifically residents of Calloway County, in Murray, Kentucky.

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This four-part interdisciplinary study includes community resource website development, interviews with elderly people in the local community about lifestyles and habits, administration of a survey about barriers to healthy lifestyles, and education on findings in local elementary schools. Currently, the resource website has been developed and analysis of the barriers survey is underway.

The goal of this portion of the four-part study was to develop a website that provides easily accessible information for community members to learn about the Community Vitality project. In addition, community members can access resources related to movement (physical activity), rest (reducing stress, sleeping, and identifying life objectives), nutrition (eating a plant-based diet, intuitive eating, and drinking red wine), and connection (time with family and social groups). The website was created using multiple areas of expertise. It includes resources in and around the local community that relate to these four major concepts. This website is a valuable resource in a rural area in Kentucky because healthcare accessibility can be problematic; therefore, health education can be minimal as well.^[2] Ultimately, the researchers' goal is for community members to access and utilize the resources to learn about and practice healthy living.

2. REVIEW OF LITERATURE

2.1 Blue Zones

Research into longevity by Poulain et al.^[3] led to Buettner's identification and exploration of areas of the world where people live longest. Through studies with National Geographic, Buettner and a multidisciplinary team of researchers identified five regions across the world where people have unique and similar lifestyle habits associated with longevity.^[4] The five regions are Okinawa, Japan; Nicoya, Costa Rica; Sardinia, Italy; Ikaria, Greece, and Loma Linda, California, USA.

Across these regions, a number of similar characteristics and habits were identified and grouped into nine areas known as the Power 9: Move Naturally, Wine at 5, Plant Slant, 80% Rule, Right Tribe, Loved Ones First, Belonging, Down Shift, and Purpose.^[4] According to Buettner's research, the world's longest living people live in environments where they have to move to do most tasks. They drink polyphenol-laden wine daily and eat a diet mainly consisting of vegetables and beans. They stop eating before they are full, and they do not eat late at night. Social networks support their healthy behaviors. They put family first by having one life partner and caring for children and aging parents in the home. Most are part of a faith-based community and have routines to rid themselves of stress. They have a purpose, or a reason, they get out of bed in the morning.

Aside from living longer, people in the Blue Zones tend to be happier and do not have as many chronic diseases as people in other parts of the world. For example, Sardinians enjoy happy hour and social time with friends each evening. Ikarians have half the rate of heart disease and no dementia. They have a relaxed way of living without hectic schedules and strict time deadlines. Okinawans have less cancer, heart disease, and dementia than Americans. The people of Nicoya focus on listening and laughing. Loma Lindans spend a lot of time with like-minded friends.^[4]

Buettner's Blue Zones research has provided a blueprint for health educators and healthcare professionals to help improve health habits of Americans. Implementing the nine identified habits can help people to decrease their risk for many illnesses as well as add happy, healthy, quality years to their lives.

2.2 Healthy lifestyles

The quest for healthy living has been a focus of every generation. In a study examining millennial views on the importance of different components of life, 53% valued health and wellness the most.^[5] Another survey equating health with a longer lifespan observed that 79.7% of people would aspire to live to 120 years or longer if health was guaranteed, indicating the majority of the population's desire to live long, healthy lives.^[6] Healthy living is not a single-faceted practice but a combination of behaviors, attitudes, and mindsets that influence overall health. According to the American Academy of CPR and First Aid,^[7] a healthy lifestyle consists of five components: balanced diet, physical activity, adequate sleep, mental health, and social interaction.

In today's fast paced, technology-driven era, there have been changes in daily habits that have led to higher prevalence of adverse conditions such as obesity and diabetes. An examination of health outcomes continues to suggest that lifestyle is the culprit. An American Psychological Association survey revealed that Americans chronically activate stress mechanisms, often leading to declining health.^[8] The survey revealed that 40%-45% of Americans suffer from insomnia and 70%-75% experienced at least one stress-related symptom.^[8] Not only do these stress-related symptoms elicit physiological changes within the body such as a decreased immune response and an increase in heart rate and blood pressure, stress typically results in an increase in unhealthy behaviors.^[9] A study examining the relationship between perceived stress and various health behaviors determined that greater stress was associated with negative health behaviors such as a higher fat diet, increased smoking, and lower levels of physical activity.^[10]

Kentucky displays multiple unhealthy habits that have led to undesirable consequences. According to United Health Foundation's Annual Report,^[11] Kentucky ranked 43rd in overall health. The report evaluated 35 measures of health status. The biggest challenges observed within Kentucky were an increased prevalence of multiple chronic conditions, high premature death rate, and a large population of cigarette smokers. Diabetes rates also increased in adults between 2013 and 2019 from 10.6% to 13.3%, respectively. Another investigation evaluated risk factors, by state, for years of life lost due to disability.^[11] In Kentucky, the three leading risk factors were tobacco use, high body mass index, and undesirable dietary habits. The unhealthy patterns exhibited by Kentucky residents has led to an average life expectancy of 76 years old, ranking 46th among all states. This figure is significantly lower than the national average of 78.79 years old.^[12]

2.3 Resource websites

Evidence suggests that healthcare accessibility is a problem in rural areas. Healthcare providers are not drawn to rural areas, resulting in high patient to provider ratios. The National Rural Health Association (NRHA),^[13] reports there are 13.1 physicians per 10,000 people in rural areas compared to 31.2 physicians per 10,000 people in urban communities. Additionally, in some rural areas, transportation to healthcare facilities is difficult, making it costly and burdensome to seek care.^[13] Residents of rural areas are further secluded from adequate healthcare as a greater number of individuals are uninsured.^[13] In 2018, 9.1% of rural residents did not have any type of health insurance compared to 8.4% of those living in urban areas.^[13]

Websites contain a great deal of health information in one place and can be utilized to address the discrepancy in seeking healthcare. A 2018 Pew Research Center survey found that a large majority of people in the United States rely on their own research to make big decisions. Nearly half stated they use digital tools for this research. In terms of healthcare decision-making, 72% of internet users in the United States search the web for illness, treatment, and procedure advice.^[14] A study examining the role of the internet in healthcare-related decisions found that internet resources were always used and in multiple facets—a supportive role as a decisional aid, a stimulating role as a decision initiator, and an interactional role between patient and provider.^[14] The NRHA reports that 53% of rural Americans lack access to the benchmark bandwidth for internet speed, further marginalizing individuals in rural areas as they are unable to access a variety of health-related information. According to census.gov,^[15] approximately 91.9% of residents of Calloway

County have internet access, and 83.1% have a broadband internet subscription, suggesting that many residents of Calloway County, although rural, would have access to internet resources for healthy living.

3. DEVELOPMENT AND PLAN

The four-part research project involving faculty from multiple disciplines began by investigating healthy lifestyles of centenarians in the world's Blue Zones. One faculty from Nursing further explored the Blue Zones by visiting two locations (Ikaria and Sardinia) with groups of Nursing, Community Health, and Exercise Science students through university education abroad programs. The investigation and exploration led to a desire to share information with the local community about healthy lifestyles, as well as analyze healthy behaviors of citizens.

The first part of the project was the development of a Community Resources website organized around the following four Blue Zones-related themes: movement, rest, nutrition, and connection. By organizing health-related information into one website, and then sharing the website with as many people as possible in the community, the researchers hope to reach a large number of community members. Two members of the project faculty facilitated production of the website, while other faculty contributed information.

The website was organized into the following sections: Home, About Community Vitality, Meet the Team, Projects, and Resources. In the "Home" section, explanations are provided about each of the four themes. For example, a paragraph description is given about Movement, its importance, and ways to incorporate it into daily life. A breakdown of Rest is provided, including its mental and physical benefits, as well as the components of motivation and aspirations. Nutrition is discussed, including an introduction about the health effects of plant-based diets, intuitive eating, and drinking red wine. The concept of Connection is described, detailing the positive health effects of socializing with friends, families, and other community members.

The section entitled "About Community Vitality" has a description of the "story" of the researchers and how the interest in this topic came about. Detail is provided about Dan Buettner and National Geographic's research into longevity as well as the education abroad programs to previously identified Blue Zones. Photographs from the programs in Italy and Greece are posted. The project's overall aim is listed: "to educate people about centenarian lifestyles and compare and contrast with the habits of Americans."

The "Meet the Team" tab includes photographs and names of all the faculty and student researchers who are part of

the project. Email addresses and biographies are linked. The “Projects” tab has information about each of the four components of the research project, including the barriers survey, interviews, education in schools, and website development. Results from the barriers survey are included. For example, data is presented in table format with information about demographics of participants and correlations between characteristics and lifestyle behaviors.

The “Resources” section is the highlight of the website. There are four components: Movement, Rest, Nutrition, and Connection, and each of these concepts has a link. The link for Movement, for example, takes visitors to a great deal of community information including exercise safety, places to go in and around Calloway County for exercise, and activities to do in the area such as hiking, walking, and existing yoga studios. The Rest link includes resources about local stress-reduction activities, such as yoga studios, spas, wellness centers, and churches, as well as information about volunteering in the community. The Nutrition link contains information about access to healthy foods at local groceries and restaurants, gardening, and growing one’s own food, as well as tips about plant-based eating. Finally, the Connection section leads to links for local community organizations associated with engagement and helping others.

The website went live in January, 2022. Researchers and their network of friends and colleagues have begun sharing the URL via social media and other available formats. The

researchers plan to utilize student research involvement to keep the website and links current.

4. CONCLUSION

The studies of longevity by Poulain et al. [3] and Buettner [1] have provided a valuable blueprint for American communities and citizens. The commonalities among the identified Blue Zones are essential components for a healthy life. Overall, people want to live healthy, happy lives, but according to data, residents of Kentucky are not. Because Kentucky has a lot of rural areas and difficulty with access to health care, the website will be a tool for communities to use to encourage and educate residents. The Resource Website has recently gone live (<https://sites.google.com/murraystate.edu/communityvitality/home>). Visits to the website will be tracked and monitored, and the expectation is that many community members will visit the website and utilize its resources. Evaluation of the usefulness of the website will be performed in the future, particularly exploring residents’ beliefs regarding implementing the suggested changes in a rural community such as Calloway County. Additionally, the hope is that the website can continue to grow and be expanded upon, and other communities will utilize a similar format to inform and educate.

CONFLICTS OF INTEREST DISCLOSURE

The authors declare that there is no conflict of interest.

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