# EXPERIENCE EXCHANGE

# Blue Zone of Ikaria, Greece: An education abroad program for nursing and health-related disciplines

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# ABSTRACT

International education is growing among American students. In the past two decades, the number of students studying abroad has more than tripled. Research has provided evidence that students who participate in study abroad are more likely to have a variety of career prospects and are more aware socially and culturally. In a world where nurses will be providing care for an increasingly diverse population, cultural awareness and improved interaction with people of different cultures is invaluable. A faculty member with education abroad experience at a mid-size university in the southern United States developed a study abroad program for the summer of 2019 to Ikaria, Greece. This program centered around the concept of Blue Zones, areas of the world identified as having the largest population of centenarians, or people that have lived for longer than 100 years. This article outlines the process of development of the program and the course associated with the program. There is information about course description, course objectives, grading procedures, course activities, and a schedule of activities that students participated in while abroad. Student response to this education abroad experience was very positive. Students have reported that they attempt to implement the nine concepts into their everyday lives since returning, and the impact that this program and other education abroad programs has had, is profound.

Key Words: Study abroad, Education abroad, Experiential learning, Nursing

# **1. INTRODUCTION**

International education is growing among American students. In the past two decades, the number of students studying abroad has more than tripled, and it is predicted that that number will continue to grow.<sup>[1]</sup> In the 2016-2017 academic year, the number of students studying abroad grew 2.3 percent from 325,339 students to 332,727 students.<sup>[2]</sup> Research has provided evidence that students who participate in study abroad are more likely to have a variety of career prospects and are more aware socially and culturally.<sup>[3]</sup>

In an alumni survey conducted by The Institute for International Education of Students (IES), the long-term impact of study abroad on the personal, professional, and academic lives of students was explored. Results strongly indicated that study abroad truly has an impact on academics, cultural development, career, and personal growth. For example, 87% of respondents said that "studying abroad influenced subsequent educational experiences", 94% stated that the "experience continues to influence their interactions with people from different cultures", 76% reported they "acquired skill sets while studying abroad that influenced their career path", and 97% said that the experience "served as a catalyst for increased maturity" and "increased self-confidence".<sup>[4]</sup>

In nursing education, there is great value in education abroad.

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Studying abroad has been shown to help with cultural awareness and interaction with people of different cultures, maturity, and self-confidence. In a world where nurses will be providing care for an increasingly diverse population,<sup>[5]</sup> cultural awareness and improved interaction with people of different cultures is invaluable. Maturity and self-confidence are traits that new graduate nurses do not always possess,<sup>[6]</sup> but studying abroad can help to improve that.

A nursing faculty member with education abroad experience at a mid-size university in the southern United States developed a study abroad program for the summer of 2017 to Sardinia, Italy,<sup>[5]</sup> geared towards undergraduate students in nursing and other health-related disciplines. This program centered around a concept of interest, Blue Zones, described below. The success of and interest in this program led her to develop a similar health-related program for Summer 2019 to the Blue Zone of Ikaria, Greece. This article will describe the Blue Zones concept, the development of the second Blue Zone program, what was involved in the course and program, and details of the experience.

# 2. WHAT ARE BLUE ZONES?

The Blue Zones are areas of the world identified as having the largest population of centenarians, or people that have lived for longer than 100 years.<sup>[7]</sup> Five of these zones have been identified around the world: Okinawa, Japan: Loma Linda, California; Nicoya, Costa Rica; Sardina, Italy; and Ikaria, Greece.<sup>[7]</sup> The National Geographic team along with researcher Dan Buettner have visited these locations and exhaustively and methodically studied the lifestyles lived by the residents in order to pinpoint why and how the people in these areas are living longer, healthier lives.<sup>[7]</sup> The findings from their research have since been termed the Power 9, or nine aspects of life that were similarly indicated in each zone as contributing to longevity and health. These nine aspects involve moving naturally, knowing one's purpose, downshifting and de-stressing one's life, belonging to a religious or spiritual group, putting family first, surrounding oneself with the right tribe of people, eating until only 80 percent full, having a more plant-based diet, and drinking a glass of red wine at least once a day.<sup>[7]</sup>

# 3. DEVELOPMENT OF THE PROGRAM

Buettner's research is fascinating to nurses and other healthcare providers because people in the Blue Zones are living longer, healthier lives than people in the United States. For example, in Ikaria, Greece, people on average live 8 years longer than Americans and have 20% less cancer, half the rate of heart disease, and no dementia.<sup>[5,7]</sup> The nursing professor who developed these study abroad programs was curious about the habits and lifestyles that led to the increase in health and longevity. Additionally, while she had read about the concepts, the research, and the people, she saw value in visiting the actual Blue Zones to interact with the citizens and learn from them about their techniques. She felt that nursing students, and other university students who had an interest in health, could benefit from this study as well, and they could eventually bring the ideals back to their communities and professions and be exposed to and practice transcultural nursing. She hypothesized both that visiting the Blue Zones would allow students to have experience with transcultural nursing that they could apply in their own practice as well as help them to encourage habits for themselves and patients that could contribute to health and longevity.

In 2015, the professor completed the university application process and had a program approved for Summer of 2017 to Sardinia, Italy. Information about that program development can be found in Naber and Hale.<sup>[5]</sup> Due to the success of the Sardinia, Italy program and a continued desire for engagement, immersion, and experiential learning, the professor applied to teach abroad in Summer of 2019 in Ikaria, Greece with another professor in the Public and Community Health department. The year before the program consisted of recruitment efforts by the professor, other colleagues in her department, colleagues across campus, and education abroad representatives. She visited classes of nursing and other health career students and spent time recruiting at study abroad fairs on campus. After returning from Sardinia, she prepared a Powerpoint presentation with details from that program that she was able to share with prospective students. She always explained the Blue Zones concept and its value to nursing students, nurses, health care providers, and patients. The tentative itinerary (that she was working on developing along with help from the education abroad office at her university and a provider) was shared as well as cost and course credit. She and her colleague were able to recruit 19 nursing students and 4 students from Public and Community Health and Exercise Science. There was interest from students in a variety of disciplines, but a maximum capacity number had to be set so that experiences abroad would be high quality and feasible.

# 4. COURSE DEVELOPMENT

A successful education abroad experience includes two major components: growing to understand that other cultures have different and valuable approaches to life and "knowing enough background information about a place, its history, and connections to other parts of the world"<sup>[8]</sup> to understand the experiences that take place. Learning about a place requires work, such as reading academic publications, discussing opinions with peers, and synthesizing the information by writing.<sup>[8]</sup> For this particular program, the faculty member wanted the nursing students to learn about the concept of Blue Zones and how the citizens of the Ikarian Blue Zone apply the nine components of healthy living described by Buettner.<sup>[7]</sup> Additionally, she wanted nursing students to bring back the concepts and information to families, peers, community members, and patients. Below are details about the specifics of the program and course.

## 4.1 Course description

For the course associated with the experience abroad, the focus was on exploring Greece's Blue Zone in Ikaria. The professor emphasized attention to sociocultural practices such as diet, activity, exercise, religion, and agriculture. Some visits allowed investigation of alternative treatments and therapies, university education, and healthcare systems throughout Greece. There was a stop for several days in Athens, Greece on the way to Ikaria—see Schedule of Activities below.

## 4.2 Course objectives

The following objectives were created by the professor and listed in the syllabus: obtain an understanding of the current structure of the Greek healthcare system; explore sociocultural contributions to health and illness in the U.S. and Greece; compare health practices in the U.S. and Greece; and understand the Blue Zone concept as a research project. For nursing students in particular, obtaining an understanding of healthcare systems in other countries is very important. This is useful because students can compare the policies, facilities, resources, and organizations to those in the U.S. Also, getting to know and observing people in other cultures allows students to understand how lifestyle affects health and illness. Additionally, the goal was for the students to have a clear understanding of what Blue Zones are, how the Power 9 affects health and illness, and how this new understanding and knowledge can be shared with others.

#### 4.3 Grading procedures

To encourage students to diligently apply themselves in education abroad courses, grades should be assigned.<sup>[9]</sup> For this course, the grade breakdown was as follows: Class Participation and Discussion (20%); International Reflective Journal (20%); Blue Zone presentation (30%); Class Presentation in the US (15%); and Class Presentation in Greece (15%). Descriptions of each of these components are detailed below.

## 4.4 Course activities

Based on University policy, this course was considered a Spring 2019 class, although some parts, including the travel, took place after the spring semester was completed. Beginning in the second half of the semester, during class meetings, the course plans and itinerary were reviewed, Dan Buettner's<sup>[7]</sup> book The Blue Zones: Nine Lessons for Living Longer from the People Who've Lived the Longest was discussed and analyzed, interactions with Blue Zone citizens were planned, goals were made for Blue Zones research, and presentations were given by students to their classmates.

As far as presentations, students chose presentation topics from lists provided, or they could choose a topic of interest that wasn't listed. Some of the topics were non-nursing locations or events that they would be visiting (such as the Parthenon or the Celebration of St. Constantine), and some were nursing-related (such as a private hospital or a local university). Presentations were recommended to be done in five minutes or less and a grading rubric was provided. The students could present alone or with a partner or two partners. For the nursing-related presentation, students were asked to include information about similarities and differences between the U.S. and Greece. For non-nursing locations, they were asked to discuss connections to healthcare and also any information that classmates might need to know prior to traveling to the location, such as dress requirements or geographic location. At one class meeting, they each presented one topic, and in Greece, they presented the other, on the day the group would visit that particular location. This was valuable, as while the group was in route to a hospital, for example, a student or students presented about the background of the facility, treatments provided, the method of health care delivery, methods of payment, patient population, etc. Students felt prepared for their visits and already had questions in mind to ask.

The class meeting where students presented on a Blue Zone topic took place two weeks prior to departure for Greece. The objective of these presentations was to explore what the students had learned about Blue Zones, based on their reading and individual research. They also were advised to talk about what they hoped to learn while visiting Ikaria and what they wanted to bring back to patients, the community, the University, and their own families and lives. These presentations were due prior to the class meeting and posted on the online platform for classmates to review.

A final assignment that is valuable to students on any education abroad program is a reflective journal. The requirements for this journal in Greece were as follows: at least 2-3 pages per day, showing evidence of comparison of US and Greek culture, with emphasis on health care similarities and differences and Blue Zone ideals; a 2-3 page journal entry about specific encounter/conversation with a Greek citizen about health; a 3-4 page journal entry with an overall analysis of the visited Blue Zone. The journal showed evidence that students were able to relate many activities to health, nursing, and the Blue Zone concepts. Additionally, this requirement allowed students to have written documentation of their entire experience.

## 4.5 Schedule of activities

In collaboration with the Education Abroad office at the professor's university in the U.S. and the chosen provider, the professor developed a program that would best meet the needs of the students and meet the objectives of the course. Additionally, the program was unique. The provider had not developed an itinerary like this one before except for the May 2017 program to Italy, and the Greece program had some changes and improvements from the previous program. The itinerary is found below:

Day 1 & 2: Flight and arrive in Athens at hotel; Orientation session and walking tour with on-site coordinator; Welcome lunch; Olive Oil Seminar at gastronomy center

Day 3: Visit Recovery and Rehabilitation Center; Visit Doctors without Borders office

Day 4: Visit Society of Social Psychiatry and Mental Health in the morning. Guest lecture in the evening at Aegean Omiros College for presentation on "Major Benefits of Mediterranean Diet" and "Physiotherapy and Nursing in Greece—Life in a Rehabilitation Center"

Day 5: Visit to Onassis Cardiac Surgery Center (private hospital) in the morning. Tour of Acropolis in afternoon

Day 6: Visit to Papagiannakos Winery later morning

Day 7 & 8: Free days

Day 9: Visit National School of Public Health in the morning. Ferry from Piraeus to Ikaria and arrive at hotel

Day 10: Orientation with on-site coordinator. Visit to Ikaria Prefectural General Hospital in Agios Kirikos to learn about rural health. Visit to Lefkada Hot Springs to learn about hydrotherapy and enjoy free time. Celebration of St. Constantine and Helen in Ikaria at 8 pm.

Day 11: All day visit to Blue Zone to meet centenarians and explore the Blue Zone.

Day 12: Cooking Class at Thea's Inn and visit to Afianes Winery

Day 13: Free day in Ikaria

Day 14: Flight from Ikaria to Athens and to hotel followed by farewell dinner

Day 15: Fly home from Athens

# **5.** The experience

In May, 2019, the professors and 23 students traveled to Athens and Ikaria, Greece to begin their 15-day experience. There was a guide who was a Greek native that traveled with the group every day, which helped with language barriers, navigation, and communication. Each day the group had breakfast at the hotel and then traveled to the excursions listed above. They traveled together to the planned events and kept journals with them to document activities. They also presented on their chosen topics while visiting those locations.

Goals of the course included obtaining an understanding of the current structure of the Greek healthcare system and comparing health practices in the U.S. and Greece. Students were able to do this by visiting and observing in health care facilities in both Athens and Ikaria. They asked questions of health care providers in each facility and were able to learn about the nursing profession and interdisciplinary collaboration in Greece. Additionally, they were able to explore sociocultural contributions to health and illness in the U.S. and Greece by talking with local citizens, physicians, nurses, and educators. Finally, the group obtained an understanding of the Blue Zone concept by relating all activities to what they had learned about Blue Zones. They did this both in their journaling and in group discussion.

Due to the grading timeframe and University policies, there was no mandatory course requirement after returning from the program. However, the nursing faculty member was interested in continuing some Blue Zone and education abroad projects, and she offered the opportunity to all students who had participated. Four nursing students were interested in voluntarily pursuing some research opportunities with the professor in the following fall semester. These projects are currently underway and include the following: an interdisciplinary development of a community Blue Zone health resource manual; an interdisciplinary community survey of healthy lifestyle barriers; development of local centenarian interviews; and education about healthy lifestyles and Blue Zone concepts in the elementary schools.

# **6.** IMPLICATIONS AND RECOMMENDATIONS

After a Blue Zone related program was done in Summer 2017 to Sardinia, Italy, changes and additions were made for the Summer 2019 Blue Zone experience. For example, the Greece program was 15 days long as opposed to 11 days in Italy. The additional time allowed more in-depth analysis of the country and the Blue Zone concepts, as well as more engagement with citizens and visits to more locations. The students in Greece were also able to have a free weekend to travel independently if they desired. Additionally, having the

same guide throughout the entire program was an advantage. In Italy, the guide was different in each city, and the continuity of guide in Greece allowed an increased comfort level and better communication. It is recommended that future programs maintain the two week minimum in order to experience cultural immersion and have the same guide through the entirety of the program.

Student response to this education abroad experience was very positive. In evaluations, students reported that they enjoyed the program, with the study of the Blue Zone being the most enriching component. Students have reported that they attempt to implement the nine concepts into their everyday lives since returning. They also encourage patients, friends, and family members to explore the Power 9 and to consider making the concepts part of their lives. Additionally, the students that volunteered to work on research projects with the faculty member upon return are gaining valuable research experience while aiming to make a difference in the lifestyles of American people. During reflection, the students verbalized that they would recommend study abroad to friends, family, and classmates.

# 7. CONCLUSION

Education abroad is an opportunity that college students should take advantage of. The impact that the experience can have is monumental, and for nursing students particularly, the skills that can be attained will be an asset as they graduate and become practitioners. This education abroad program has had positive feedback, and the potential for the program to have a positive community impact is profound.

# **CONFLICTS OF INTEREST DISCLOSURE**

The authors declare that there is no conflict of interest.

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