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# Increasing Organ Donation in a University Setting

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# Increasing Organ Donation in a University Setting

by

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A project submitted to the faculty of Gardner-Webb University Hunt School of Nursing in partial fulfillment of the requirements for the degree of Doctor of Nursing Practice

Boiling Springs, NC

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Thank you!

#### Abstract

The literature shows a strong correlation between education on organ donation and increased organ donation registration. Society has depicted a description of organ donation that is hostile and untrue. Increasing organ donation registration with knowledge sets the foundation of a grassroots movement to increase understanding and change society's viewpoint(s) on organ donation. An education session on organ donation was developed and presented to the targeted population of 18–24-year-old students at a university in the foothills of the Appalachian Mountains. The focal point of the presentation was to dispel myths, educate on facts, and create a better understanding of organ donation at its foundational level. A pretest-post-posttest survey was developed by the DNP (Doctor of Nursing Practice) Leader and was utilized to evaluate the students' understanding of organ donation in different facets. The objectives met by the education session were to increase understanding of the organ donation process, how to become a registered organ donor, the understanding of the need for organ donation, and express interest in becoming a registered organ donor. In conclusion, there was an increase in the target population's knowledge of the organ donation process and an increase in registration as an organ donor.

Keywords: organ donation, knowledge deficit, education, myths

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#### **Problem Recognition**

In the United States today, approximately 105,100 people are waiting for an organ transplant (Lifeshare Carolinas, 2022). Subsequently, in North Carolina, there are currently 3,719 people on the organ transplant waiting list (Organ Procurement & Transplant Network, 2023). Within Cleveland County, North Carolina, 59.7% of residents aged 18-24 and 25-34 years are registered organ donors, and 44.8% of residents aged 64-79 are registered organ donors (Carolina Donor Services, 2021).

#### **Identified Need**

Organ donation can reach multiple people, with one donor having the potential to impact more than 83 lives. Following cardiac death, one donor can potentially provide lifesaving organs to eight people by solid organ donation and to 75 or more people with tissue donation (Donate Life America, 2022). Not all organ donation occurs because of death. Donors can also be considered living donors, in which they can donate bone marrow, skin, bone, healthy cells, amnion, umbilical cord blood, blood, a kidney, a lobe of their liver, all or part of a lung, part of their pancreas, or part of their intestine (Health Resources & Services Administration, 2021). Consequently, approximately 17 patients die each day while waiting for an organ transplant (Carolina Donor Services, 2021).

Successful organ transplantation is also directly related to the age of the donor. The younger the donor's age, the less the potential for that recipient to have complications. In a study by Ling et al. (2022), researchers found that the older the donor, the likelihood of one-year and five-year complications or patient deaths to occur increased. The findings show that the younger the donor and recipients, the lesser the morbidity and mortality rates were (Ling et al., 2022).

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### **Problem Statement**

A lack of education about the process and need for organ donation has misled the local young population into a skewed idea of organ donation. This DNP project seeks to suggest that when fallacies and mythologies about organ donation are transformed with knowledge and edification, there will be an increased potential for college-aged students to register to become organ donors and for families to support the decision, thus decreasing morbidity and mortality of persons on the waiting list.

#### **Literature Review**

The literature review was conducted utilizing CINAHL, EBSCOhost, and Google Scholar. Key terms included age, organ age, knowledge deficit, organ donor, transplant complications, donation, college students, and myth.

#### Lack of Education

Hanauer and Burille (2020) utilized a qualitative, descriptive, exploratory design to explore the knowledge and opinion of organ donation among university students. Participants included six male and 14 female students enrolled in university classes in the Rio Grande. Participants participated in semi-structured interviews, where they were asked to share their knowledge and opinions on organ donation. The interview found underlying themes of opinion that were based on myth and fear, or their knowledge was in the beginning stages of understanding. The participants interviewed did not understand the concept of brain death and the donation process and proved uncertain, even as the participant's answers were set with confidence. Limitations of this study were that the information utilized was from a single type of public documentation and not a diverse number of different data collection points. Venkatesan et al. (2022) utilized a descriptive, cross-sectional design to study higher secondary school teachers' knowledge, attitude, and performance levels towards organ transplantation and donation. Participants included a convenience sample of 372 secondary school teachers. Participants were asked to complete a survey on organ transplantation and donation. Researchers found that awareness, attitude, and performance concerning organ donation were interrelated with gender, age, and qualifications. A positive correlation between increased knowledge and increased organ donation registration was found. Venkatesan et al. (2022) noted that teachers who taught or interacted with students in primary or secondary school should be educated about organ donation so they can provide education to their students. The authors of this study did not publish the limitations of the study.

#### **Education Fosters Change**

Riley et al. (2021) conducted a quantitative, pretest-posttest study to explore the effect an educational intervention on organ donation had on college students. The study participants consisted of 120 college students chosen by a convenience sample. Participants were asked to complete a 24-item pretest/posttest questionnaire regarding acceptability and attitudes toward organ donation. After completing the pretest, participants participated in an educational intervention by watching two short videos on the processes and myths of organ donation. After watching the videos, participants were asked four questions to debrief and were then asked to complete the posttest. Before the educational intervention, participants already had predominately positive attitudes regarding organ donation. Researchers found statistically significant increases between the pretest and the posttest in two subsections of the survey related to willingness to

donate their own organs or their family member's organs and their thought process behind organ donation. Riley et al. (2021) included many limitations to the study, including, but not limited to, the timing of the educational intervention, sampling size and procedure, previous healthcare knowledge of participants, and the overall study design.

Contiero and Wilson (2019) performed an exploratory study using a structured questionnaire to explore the feelings and understanding of donating and receiving organs of 170 undergraduate nursing students. Participants attended a Canadian university during the 2017-2018 university year. Researchers found that there is a willingness to receive but not to donate and several factors related to their ambivalence. They noted that education would be a key factor in influencing students' and healthcare professionals' beliefs, attitudes, and knowledge toward organ donation. It was believed that this information regarding organ donation should be given early in the educational program, during the undergraduate courses of the nursing degree. Limitations identified in this study consisted of a sample size that was too small, and participants were from only one university. The survey tool was also not validated to show the existence of ambivalence among the nursing students. Further investigation is needed to identify if nursing students can hold or easily gain mixed feelings toward organ donation transplantation.

Kose et al. (2015) completed a descriptive study without random sampling to establish levels of understanding and attitudes around organ donation and transplantation. Participants included 145 junior students from pharmaceutical, medical, and law disciplines at a university in Istanbul, Turkey. The project leaders utilized a questionnaire comprised of 19 questions with themes of socioeconomic characteristics, knowledge levels, and attitudes about organ transplantation. The project leaders found that the students had a positive outlook on organ donation as they understood they do not need their organs postmortem. The project leaders determined that their limitations comprised not determining if customs, traditions, and beliefs played a role in the organ donation attitude or if the traditions and beliefs played a significant role in the participant's attitudes or beliefs of organ donation.

Fan et al. (2022) defined knowledge, attitudes, and willingness to donate organs in three different regions of China. The project leaders designed a three-tiered survey, including demographic information, knowledge of organ donation, and attitudes toward organ donation. The findings of the questionnaire demonstrated an initial low willingness to donate. However, with higher education, there was an increase in willingness to donate. The questionnaire also described a lack of understanding of the brain death process and organ donation process. The noted limitations of this study were prespecified questions used in the survey, the potential of unobserved factors influencing the opinions of organ donation, and additional studies needed to prove attitudes on willingness to donate organs.

Krupic et al. (2018) performed a qualitative content analysis with open-ended questions to determine if age, gender, and religion influence decisions on organ donation in religious Muslims living in Sweden. Data was collected in three group interviews with 27 participants from four countries. The categories found were information and knowledge about organ donation, the priorities when deciding about organ donation, and the religious aspects of organ donation. Krupic et al. (2018) concluded that the study did not find age, gender, or religion as causative factors increasing organ donation impact. However, education, information through media, and understanding of the Swedish language were predictors of organ donation disposition.

#### Age of Registration Matters

Yan et al. (2018) conducted a qualitative study to assess demographics, attitudes, and willingness to donate organs, the opinions of donation, and the rationale behind those opinions. A questionnaire was distributed to 2,250 citizens in Beijing, Shanghai, and Wuhan. Of the 2,250 questionnaires distributed, 2,191 citizens completed the questionnaire. Of those participants, 145 reported supporting living donations, 213 reported supporting family members donating organs, 424 reported being willing to be an organ donor, 1,173 reported neutral feelings toward living organ donation, and 1,463 reported being undecided about their willingness to donate. Willingness was positively correlated with age, education level, income, marital status, and having descendants. It was noted that relatives or friends who had undergone organ transplantation were significantly more likely to become donors. The study also concluded that the citizens of these cities lacked an understanding of living organ transplantation and that there needs to be work done to inform the public about organ transplantation. Limitations suggested by the project leader purposed that the study was only completed in three cities, this sample size was not demographically or geographically diverse, and the responses could be biased due to the voluntary nature of the survey.

# **Needs for Organs**

Dimo and Mulqueeny (2021) utilized an exploratory design to evaluate the reasons for low organ donation registration and transplantation rates in South Africa. Purposive sampling was used to select 30 voluntary participants. Researchers interviewed participants to understand their views on organ donation and transplantation. The themes noted by the data syntheses were that there was a lack of knowledge about organ donation, refusal to provide consent (by the family post-mortem), religious beliefs that elicit a refusal, cultural factors that elicit a refusal, and positive social attitudes toward the organ donation process. The researchers do not note study bias or limitations (Dimo & Mulqueeny, 2021).

Soylu et al. (2022) utilized a descriptive study to examine voluntary organ donor donation documentation in a Turkish public hospital. Participants were greater than 18 years of age, with no mental illness, and had at least two witnesses for the voluntary organ donation consent. Researchers reviewed demographic data, in addition to the number of organs donated and who provided permission for organ donation. Of the 219 documented organ donors, 62.6% were 19 to 25 years of age, 67.6% had a high level of education, and 60.7% were students. When parents were asked, the father was reported to be more likely to authorize organ donation. The study also revealed people living in the Mediterranean areas were also more likely to donate their organs than other countries. Researchers found a strong correlation between age and the number of organs donated. The study recommended that education concerning organ transplantation and donation be conducted in other regions not covered by the study, and nurses should lead organ donation campaigns to increase the number of donations. This study was conducted in a single center, and the voluntary organ donor's general status could not be reflected, which limited the data collected.

# **Needs Assessment**

# **Target Population**

This DNP project included college-aged students enrolled in a faith-based institution in the Piedmont region of North Carolina. The PICOT statement for this project was: In a Christian university setting of western North Carolina, how does teaching about organ donation compared with current appreciation of organ donation affect understanding of the organ donation process and organ donation registration within 2 months in the fall of 2023?

#### **Available Resources**

Resources existing for this DNP project were university leadership, the ability to network with the Student Development office to assist with promotion throughout the campus with a slide on the university slide show and fliers, promotion on social media, access to technology, speaker(s) provided by LifeShare Carolinas, education material provided by LifeShare Carolinas, and various promotional items provided by LifeShare Carolinas.

# **Desired and Expected Outcomes**

This DNP project aims were to:

- provide insight into the process of organ donation
- dispel myths about organ donation
- increase knowledge about the need for organ donors
- increase consideration of becoming an organ donor

# **Team Selection**

The DNP project team was comprised of the DNP Project Leader, the DNP Project Chair, who is educated at the doctoral level, an employee of LifeShare Carolinas, and the Dean of Students within the chosen university, who aided in the facilitation of informational session(s) and accessing students.

### **Scope of Project**

The DNP Project Leader created an educational session exploring the attitudes/beliefs the university students had about organ donation, attempting to dispel any misinformation or myths students may have had. The educational session was open to all members at the project site; however, the target population was students ages 18-24. The educational session lasted approximately 30 minutes and included a representative from LifeShare Carolinas. The session was held in a university lecture hall in a central location for student interaction. The DNP Project Leader developed and administered a pretest post-test survey regarding the attitudes/beliefs of college students towards organ donation, utilizing the Qualtrics survey software.

At the beginning of the educational presentation, participants were asked to complete a pretest, establishing baseline beliefs/attitudes towards organ donation. Once the pretest was completed, the DNP Project Leader initiated the educational session that covered themes of dispelling myths and common misinformation and an overview of the organ donation process. The educational session concluded with a posttest survey utilizing Qualtrics survey software. Data from the pretest/posttest was analyzed using descriptive statistics. The DNP Project Leader sent a follow-up Qualtrics survey, 1-2 months after the initial education session, asking if any participants, ages 18-24, registered as organ donors in their home states.

The DNP Project Leader worked with Dr. Villarose, Dean of Students at Gardner-Webb University, to acquire permission for the presentation on organ donation to Gardner-Webb University (GWU) students. Student Development assisted the DNP Project Leader in contacting leaders of student clubs on campus who were interested in sponsoring the DNP Project. Three clubs agreed to sponsor the event: The Student Nurses Association, Health Occupations Students of America, and the Pre-Health Club. The DNP Project leader created a flyer that the Student Development Office distributed for advertisement, which included hanging flyers on campus, posting flyers on social media, and/or displaying them on TV screens across campus. Sponsorship by each club meant the clubs hosted the educational session for their members and helped distribute flyers and promote the event across campus.

#### **Objectives and Timeline**

# **Objectives**

The objectives of this DNP project were:

- Participants will have an increased understanding of the organ donation process after participating in an educational session during the Fall of 2023.
- 2. Participants will have an increased understanding of registering to become an organ donor.
- 3. Participants will have increased knowledge of the need for organ donation after participating in an educational session during the Fall of 2023.

 Participants will express an increase in consideration of becoming a registered organ donor after participating in an educational session during the Fall of 2023.

# Timeline

The projected timeline to complete this project is displayed in Figure 1.

# Figure 1

| Project Timeline           |              |              |              |  |  |  |              |  |  |               |               |  |              |              |              |
|----------------------------|--------------|--------------|--------------|--|--|--|--------------|--|--|---------------|---------------|--|--------------|--------------|--------------|
|                            | 1 18<br>2023 | 2 18<br>2023 | 3 18<br>2023 |  |  |  | 7 18<br>2023 |  |  | 10 18<br>2023 | 11 18<br>2023 |  | 2 18<br>2024 | 4 18<br>2024 | 5 18<br>2024 |
| Problem/Needs Assessment   |              |              |              |  |  |  |              |  |  |               |               |  |              |              |              |
| Goals/Objectives           |              |              |              |  |  |  |              |  |  |               |               |  |              |              |              |
| Theory/Planning/Evaluation |              |              |              |  |  |  |              |  |  |               |               |  |              |              |              |
| QI/IRB Approval GWU        |              |              |              |  |  |  |              |  |  |               |               |  |              |              |              |
| Program Intervention       |              |              |              |  |  |  |              |  |  |               |               |  |              |              |              |
| Conduct Evaluations        |              |              |              |  |  |  |              |  |  |               |               |  |              |              |              |
| Analyze Data               |              |              |              |  |  |  |              |  |  |               |               |  |              |              |              |
| Produce Reports            |              |              |              |  |  |  |              |  |  |               |               |  |              |              |              |
| Disseminate Findings       |              |              |              |  |  |  |              |  |  |               |               |  |              |              |              |

#### **Projected Timeline**

Time to complete

# **Theoretical Underpinning**

Dr. Jean Watson's Theory of Human Caring served as the framework for this DNP Project. In the 1960s, transpersonal psychology was taking form, building on the foundation of humanistic psychology. This psychology and Florence Nightingale's healing environment concept are the basis for Dr. Watson's theory. Dr. Watson's first publication in 1979 focused on transpersonal caring in the nursing profession and has since undergone multiple revisions. In 1985, Dr. Watson updated her theory with the addition of the transpersonal human caring paradigm. This update included the ten Caritas processes that expanded on her caritive factors. Dr. Watson further expanded on these in 1999, 2006, and 2008 (Watson Caring Science Institute, 2023).

The main concept behind Dr. Watson's theory development was to bring worth to nursing's values, knowledge, and practices of human care. Increasing the nurse's value, knowledge, and human caring practice, with the nurses adding their own subjunctive inner healing that is achieved in the nurse's life through experiences, sets the framework for "caritive factors" (Watson Caring Science Institute, 2023). Watson's theory also sought to balance the well model of healthcare and to give nursing its own unique professional standing. The main concepts of Watson's Theory of Human Caring are transpersonal caring relationships, a caring occasion/caring moment, and the ten caritive factors that center beliefs of caring and guided nursing practice. These concepts were first defined as:

- Transpersonal caring relationships: Defined as an authentic spiritual connection that embraces healing capability not controlled by humans. This relationship supports nursing work and communicates concern for reaching beyond the person's illness (*Watson Caring Science Institute*, 2023). Following this theory, the nurse goes more in-depth with their patients and understands the whole person, not just the patient's illness.
- Caring occasion/caring moment: "... is a heart-centered encounter with another person. The caring occasion/caring moment happens when two people, with their unique life histories, enter into a human-to-human transaction in a given point in space and time" (Slade & Hoh, 2020, p. 7).

• Caritive factors: Ten unique opportunities and diverse modalities that can be utilized to develop better care for patients. This opportunity envelopes new opportunities for sincerity and diversity in the practitioner and the patient (Pajnkihar et al., 2017).

Dr. Watson's theory promotes health, intends to prevent illness, implores caring for the sick, and repairs the patient's understanding of health. Dr. Watson's theory focuses not only on sick care but also on promoting health and caring for the whole person with care, keeping sight of the patient's mental health. The theory also prevails care on a hierarchy of needs from lower needs of activity, inactivity, and sexuality to higher-order needs such as achievement, affiliation, interpersonal-intrapersonal needs, self-actualization, and growth-seeking (Gonzalo, 2023).

#### **Theory Application to the Project**

Dr. Jean Watson's theory of transpersonal caring enhances the notion that becoming an organ donor is a heart-centered moment by allowing people to give medical care to another person before knowing them. When registering as an organ donor, donors enter this human-to-human encounter. Once making the selfless decision to become an organ donor, the registrant could potentially give someone else the gift of life even after their life has ended.

Three of Watson's caritas will be incorporated into this DNP project, including *Inspire*: comprising faith, hope, and belief that when science fails, these will prevail; *Trust*: genuine inner peace with the development of one's own feelings to develop authenticity and promote insight into oneself; and *Minister*: humble assistance with basic

human needs that displays a genuine encompassing mind-body-spirit connection between individuals (Watson Caring Science Institute, 2023).

#### Concept One: Inspire

Comprising faith, hope, and belief that when science fails, these will prevail. Dr. Watson created this process with the intent to instill faith and hope when science fails (Current Nursing, 2023). When someone decides to become an organ donor, their decision moves beyond their own ego and more into a transpersonal presence. The registrant is authentic in their decision that reflects their values, personality, and spirit. Authenticity on this occasion is embodying your decision to become an organ donor. It is to instill truth when the myth of organ donation is portrayed. This caring occasion moves the registrant beyond themselves and things about the spiritual connections that move beyond themselves and their decisions' healing potentials (Slade & Hoh, 2020).

#### **Concept Two: Trust**

Genuine inner peace with developing one's own feelings to achieve authenticity and promote insight into oneself. By choosing to become an organ donor, the registrant displays their sensitivity for compassion, authenticity, and capacity for caring for people (Current Nursing, 2023). Transpersonal caring encompasses human beings in a relationship that may not have been known. This type of care moves beyond an egocentric ideology into situations that connect them to others without knowing. The transpersonal self builds on transpersonal caring in that to bring the whole self into this relationship, one moves past their ego to expand their caring occasion (Slade & Hoh, 2020). Once a person has registered to donate their organs or becomes a living donor, the donor grows past their ego and into a consciousness where the needs of someone else could be sufficed with the utilization of the donor's organs.

# Concept Three: Minister

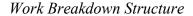
Humble assistance with basic human needs displays a genuine encompassing mind-body-spirit connection between individuals. This Caritas process reflects the personal needs and the hierarchy that all needs must be met. When a registrant's life ceases, and that registrant becomes an organ donor, that is a transpersonal caring moment that is of the utmost honor. When a person extends their hand to aid someone else in registering for organ donation, the registrant increases the importance of someone else's needs. Organ donation fulfills all the registrant's higher-order needs (Current Nursing, 2023). Finally, registering for organ donation also fulfills basic needs with the intent to expand the mind-body-spirit connection to allow for caring for a whole person (Slade & Hoh, 2020).

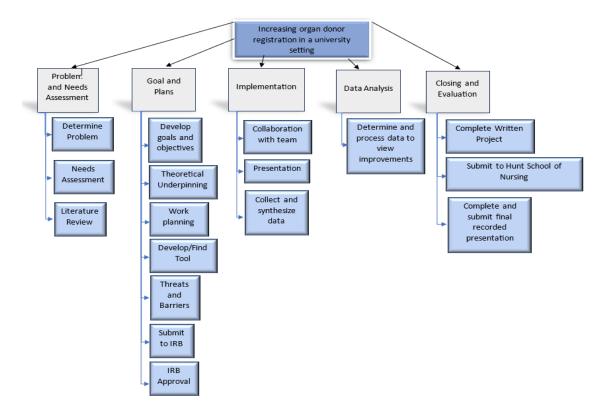
#### **Work Planning**

#### **Project Management Tool**

A Work Breakdown Structure (Figure 2) was created to outline tasks to complete this DNP Project.

# Figure 2





#### **Cost/Benefit Analysis**

There were minimal costs associated with this DNP Project. Figure 3 outlines direct costs, indirect costs, and cost benefits. Regarding direct cost, the DNP project implementation site agreed to cover the cost of printing flyers for the event. The DNP Project Leader created the Slideshow PowerPoint without cost for the software. The educational pamphlet was provided by LifeShare Carolinas and their marketing department at no cost.

The DNP Project Leader utilized computers, a classroom, a smartboard/projection screen, and free virtual Zoom space provided at the DNP project implementation site with no cost for rental.

Regarding benefits, Figure 3 outlines the cost of care for four rudimentary

patients with different diagnoses that are associated with extensive care. The costs are listed as USD per month per patient.

# Figure 3

# Cost Benefit Analysis

| Direct Cost           |               |     |       |                       |                        |  |  |  |  |  |
|-----------------------|---------------|-----|-------|-----------------------|------------------------|--|--|--|--|--|
| Flyers                | 0             | 10  |       | \$0.00                |                        |  |  |  |  |  |
| Educational Pamphlet  | 0             | 80  |       | \$0.00                |                        |  |  |  |  |  |
| Recipient Speaker     | 0             | 1   |       | \$0.00                |                        |  |  |  |  |  |
| Slideshow /           |               |     |       |                       |                        |  |  |  |  |  |
| Powerpoint            | 0             | 1   |       | \$0.00                |                        |  |  |  |  |  |
| Indirect Cost         |               |     |       |                       |                        |  |  |  |  |  |
| Computer to run slide |               |     |       |                       |                        |  |  |  |  |  |
| show                  | 0             | 1   |       | \$0.00                |                        |  |  |  |  |  |
| Classroom             | 0             | 1   |       | \$0.00                |                        |  |  |  |  |  |
| Smartboard/Project or |               |     |       |                       |                        |  |  |  |  |  |
| Screen                | 0             | 1   |       | \$0.00                |                        |  |  |  |  |  |
| Virtual Space (Zoom)  | 0             | 1   |       | \$0.00                |                        |  |  |  |  |  |
|                       |               |     | Benef | its                   |                        |  |  |  |  |  |
| End Stage Renal       |               |     |       |                       |                        |  |  |  |  |  |
| Disease               | per 1 pati    | ent |       | \$14,399.00           | (Hedt, 2021)           |  |  |  |  |  |
| Diabetes Mellitus     | per 1 pati    | ent |       | \$800.00              | (Petersen, 2018)       |  |  |  |  |  |
| Heart Failure         | per 1 patient |     |       | \$3,755.00            | (Oseneko et al., 2022) |  |  |  |  |  |
| Chronice Obstructive  |               |     |       |                       |                        |  |  |  |  |  |
| Pulmonary Disease     | per 1 pati    | ent |       | \$466.67 to \$1783.33 | (Bollu et al., 2013)   |  |  |  |  |  |

# **Evaluation Plan**

This DNP project utilized a pre-test/post-design to explore participants' attitudes/beliefs regarding organ donation as they relate to myths, common misinformation, and the organ donation process. Data was analyzed utilizing descriptive statistics.

The pre-test survey was used to evaluate feelings toward organ donation. The pretest survey was developed by the DNP Project Leader and reviewed by the DNP Project Chair for face validity. It consisted of seven questions: two based on demographic information to identify registered organ donors and the target age population, and five questions based on a 5-point Likert scale, with answer choices ranging from 1 to 5. The demographic question identified if participants were already registered as organ donors before attending the educational session and asked about age, as it related to the target population for this project. If the appropriate inclusion criteria were not met, the survey automatically closed with the selected response. If inclusion criteria were met, the remaining five questions were populated. The post-test was the same as the pre-test and was administered at the end of the educational session.

One month after the educational session, the DNP Project Leader sent an email with the follow-up survey. The follow-up survey was developed by the DNP Project Leader and reviewed by the DNP Project Chair for face validity. It consisted of three questions, with two questions based on demographic information to identify previously registered organ donors and the target age population. The third question was based on a "yes" or "no" response. The demographic question identified if participants were already registered as organ donors before attending the educational session and asked about age, as it related to the target population for this project. If the appropriate inclusion criteria were not met, the survey automatically closed with the selected response. If inclusion criteria were met, the third question populated. Data was analyzed using descriptive statistics.

#### **Project Implementation**

#### **Threats and Barriers**

During the implementation brainstorming, the DNP Project Leader identified there could be some circumstances where the project would cause some threats/barriers to implementation. These included considerations such as inclement weather, traffic to the event, car troubles for the project leader, properly functioning technology, ability to use PowerPoint efficiently, lack of student interest in the education session, and timing of the project could be during dinner time for some students, and another event going occurring during any part of the implementation.

# **Unanticipated Events**

One week before the educational session, the project site endorsed an educational event scheduled at the same time as the DNP Project Leaders educational session. This led to a strain on the students choosing an event to attend and could have affected the student's participation in the project.

The day before the implementation, the representative from LifeShare Carolinas informed the DNP Project Leader that she would be unable to be at the venue in person but was able to be present via Zoom due to unforeseen circumstances.

During the implementation process, there was a lack of clarity on what defines a registered organ donor, as participants believed that indicating organ donation status with the Department of Motor Vehicles was the only step necessary to become a registered organ donor. This may have skewed pretest results of the students being unable to complete the survey, as they indicated they were already organ donors, demonstrating further evidence there is a lack of knowledge of the process of becoming a registered organ donor.

During the presentation, a few students arrived after the rest of the students completed the pretest. This led to skewed results in the posttest as more people participated in the posttest compared to the pretest.

## **Monitoring of Implementation**

During the implementation, the DNP Project Leader had opportunities to ask questions and aid in keeping the students involved in the educational session. The engagement led to the students staying for the entire educational session and completing the pretest/posttest. The students also all stayed and signed up for the follow-up email to ask if they had signed up to be registered organ donors.

Data was collected via Qualtrics, allowing the DNP Project Leader to easily analyze the data collected in aggregate form. Utilizing a secure and anonymous survey in Qualtrics allowed the students to portray their answers without external pressures.

# **Project Closure**

After the education session, students signed up to receive a follow-up email approximately 1-month later. The email asked them to delineate if they signed up to be a registered organ donor. This allowed the DNP Project Leader to understand how effective the educational session was in increasing the registration of organ donors between the ages of 18-24 in a university population.

Once the follow-up email was sent, the DNP Project Leader interpreted the data from the pretest, posttest, and follow-up email surveys to determine the effectiveness of the education session. The results were converted from Qualtrics to an Excel Spreadsheet and saved in a secured cloud website.

#### **Interpretation of Data**

A total of 12 participants initiated the pre-test survey. Nine of the 12 participants indicated that they were already registered organ donors; therefore, were excluded from the remaining survey questions. Of the three remaining participants, the following results

were found in response to each question:

- I understand organ donation can save lives; 67% (n = 2) strongly agreed, and 33% (n = 1) somewhat agreed.
- I am aware of the benefits of organ donation for humanity; 67% (n = 2) strongly agreed, and 33% (n = 1) somewhat agreed.
- My current perception of organ donation prevents me from considering organ donation registration; 67% (n = 2) somewhat agreed, and 33% (n =1) strongly disagreed.
- Given the opportunity, I would feel comfortable discussing organ donation registration with my family and friends; 33% (n = 1) strongly agreed, 33% (n = 1) somewhat agreed, and 33% (n = 1) somewhat disagreed.
- I intend to take steps toward becoming an organ donor; 33% (n = 1) strongly agreed, and 67% (n = 2) neither agreed nor disagreed.

A total of 14 participants consented to participate in the post-test survey. Of the 14 participants, one participant indicated they were already a registered organ donor; therefore, were excluded from the remaining survey questions. Of the 13 remaining participants, the following results were found in response to each question:

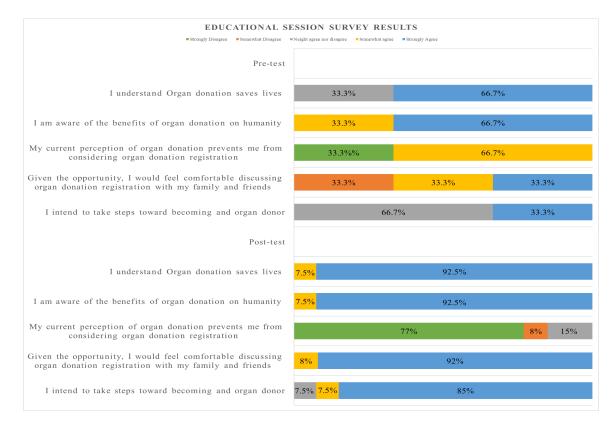
- I understand organ donation can save lives; 92% (n = 12) strongly agreed, and 8% (n = 1) somewhat agreed.
- I am aware of the benefits of organ donation on humanity; 92% (n = 12) strongly agreed, and 8% (n = 1) somewhat agreed.

- My current perception of organ donation prevents me from considering organ donation registration; 15% (n = 2) neither agreed nor disagreed, 8% (n = 1) somewhat disagreed, and 77% (n =10) strongly disagreed.
- Given the opportunity, I would feel comfortable discussing organ donation registration with my family and friends; 92% (n = 12) strongly agreed, and 8% (n = 1) somewhat agreed.
- I intend to take steps toward becoming an organ donor; 85% (n = 11) strongly agreed, 8% (n = 1) somewhat agreed, and 8% (n = 1) neither agreed nor disagreed.

In Figure 4, the results of both surveys have been graphically displayed to show the increase in understanding of what a registered organ donor is and intent to become a registered organ donor.

# Figure 4

# Survey Results



Following the post-test, participants were asked if they would like to sign up for a follow-up email about 1-2 months after the conclusion of the educational session. The students who opted into the email were then sent a follow-up email asking if they had, in fact, registered to become organ donors. There were five responses to the survey, and three of the five had signed up to become a registered organ donor.

Upon review of the data, it was discovered that there was a misunderstanding of what it meant to be fully registered as an organ donor; therefore, it is uncertain if the nine participants who identified themselves as organ donors in the pre-test were registered organ donors, which also resulted in a low response rate for the pre-test.

# Conclusion

There is a great need for organs as the organ waiting list grows by the hour. Organ donation has a lot of myths that circulate without reason. This project increased organ donation knowledge with an educational session of 18–24-year-old University students. This project also increased organ donation registration as participants registered with HonorBridge to become registered organ donors. This project debunked myths with education and, in doing so, increased organ donation registration in the chosen population.

#### References

- Bollu, V., Ejzykowicz, F., Rajagopalan, K., Karafilidis, J., & Hay, J. W. (2013). Risk of all-cause hospitalization in COPD patients initiating long-acting or short-acting beta agonist therapy. *Journal of Medical Economics*, *16*(8), 1082–1088.
   <u>https://doi.org/10.3111/13696998.2013.815625</u>
- Carolina Donor Services. (2021). *Donor designation analysis* (Ages 18-24) [Computer screenshot report].
- Contiero, P., & Wilson, D. M. (2019). Understanding ambivalence toward organ donation and transplantation: An exploratory study of nursing students. *Nurse Education Today*, 76, 191–195. <u>https://doi.org/10.1016/j.nedt.2019.02.008</u>
- Dimo, P., & Mulqueeny, D. M. (2021). Low rates of organ donation and transplantation: Causes and solutions. *Bangi*, 18(9), 147-157.

https://www.proquest.com/docview/2649763247?pq-

origsite=gscholar%26fromopenview=true

- Donate Life America. (2022). *The need*. Donate Life. https://www.donatelife.net/statistics/
- Fan, X., Li, M., Rolker, H., Li, Y., Du, J., Wang, D., & Li, E. (2022). Knowledge, attitudes and willingness to organ donation among the general public: A crosssectional survey in China. *BMC Public Health*, 22(1). https://doi.org/10.1186/s12889-022-13173-1

Gonzalo, A. (2023, July 2). *Jean Watson: Theory of human caring*. Nurseslabs. https://nurseslabs.com/jean-watsons-philosophy-theory-transpersonal-caring/

- Hanauer, M., & Burille, A. (2020). University knowledge and opinion on donation and organ transplants. *Care is Key*, 12, 450–456. <u>https://doi.org/10.9789/2175-5361.rpcfo.v12.8505</u>
- Health Resources and Services Administration. (2021, April). *Donate organs while alive*. Retrieved January 30, 2023, <u>https://www.organdonor.gov/learn/process/living-donation</u>
- Hedt, S. (2021, March 23). Dialysis costs the healthcare system three times more in the individual market. USC Schaeffer. Retrieved June 20, 2023, <u>https://healthpolicy.usc.edu/article/dialysis-costs-the-healthcare-system-3x-morein-the-individual-market/</u>
- Current Nursing. (2023). Jean Watson's philosophy of nursing. https://currentnursing.com/nursing\_theory/Watson.html
- Kose, O., Onsuz, M. F., & Topuzoglu, A. (2015). Knowledge levels of and attitudes to organ donation and transplantation among university students. *Northern Clinics of Istanbul, 2*(1), 19-25. <u>https://doi.org/10.14744/nci.2015.58070</u>
- Krupic, F., Westin, O., Hagelberg, M., Sköldenberg, O., & Samuelsson, K. (2018). The influence of age, gender and religion on willingness to be an organ donor:
  Experience of religious Muslims living in Sweden. *Journal of Religion and Health*, 58(3), 847–859. <u>https://doi.org/10.1007/s10943-018-0670-7</u>
- Lifeshare Carolinas. (2022). *LifeShare Carolinas*. Retrieved January 25, 2023, <a href="https://www.lifesharecarolinas.org/">https://www.lifesharecarolinas.org/</a>

- Ling, J. H., Choo, S., Polkinghorne, K. R., & Kanellis, J. (2022). Solid pancreas transplant outcomes with increased donor and recipient ages compared with reference ages: A systematic review. *Internal Medicine Journal*, 52(9), 1569-1586. https://doi.org/10.1111/imj.15464
- Organ Procurement & Transplant Network. (2023, January 26). *National data OPTN*. Retrieved January 30, 2023, <u>https://optn.transplant.hrsa.gov/data/view-data-reports/national-data/#</u>
- Osenenko, K. M., Kuti, E., Deighton, A. M., Pimple, P., & Szabo, S. M. (2022). Burden of hospitalization for heart failure in the United States: A systematic literature review. *Journal of Managed Care & Specialty Pharmacy*, 28(2), 157–167. https://doi.org/10.18553/jmcp.2022.28.2.157
- Pajnkihar, M., Štiglic, G., & Vrbnjak, D. (2017). The concept of Watson's carative factors in nursing and their (dis)harmony with patient satisfaction. *PeerJ*, 5, e2940. <u>https://doi.org/10.7717/peerj.2940</u>
- Petersen, M. (2018). Economic costs of diabetes in the U.S. in 2017. *Diabetes Care*, 41(5), 917–928. <u>https://doi.org/10.2337/dci18-0007</u>
- Riley, K., Evans, M. M., Hupcey, J., Sellers, P., & Machluf, K. (2021). Impact of an educational intervention on organ donation attitudes in college-aged students.
   *OMEGA Journal of Death and Dying*, 84(1), 116–125.
   <a href="https://doi.org/10.1177/0030222819880708">https://doi.org/10.1177/0030222819880708</a>
- Slade, J. D., & Hoh, N. Z. (2020). Employing Watson's theory of human caring with people experiencing loss and grief. *International Journal for Human Caring*, 24(1), 4–11. <u>https://doi.org/10.20467/1091-5710.24.1.4</u>

Soylu, D., Soylu, A., & Yüzbaşioğlu, M. (2022). Determination of the factors affecting organ donation: Voluntary organ donors. *Transplant Immunology*, 72, 101568. <u>https://doi.org/10.1016/j.trim.2022.101568</u>

Venkatesan, K., Sivadasan, D., Thangavel, N., Alshahrani, S., Paulsamy, P., Muthugounder, K., Prabahar, K., Elhassan, G., Krishnaraju, K., SheikhAlavudeen, S., Venkatesan, K., & Dekeba, K. (2022). Strategies to improvise organ donor pool: A study on the knowledge, attitudes, and performance of higher secondary school teachers towards the organ donation. *BioMed Research International*, 2022, 1–8. <u>https://doi.org/10.1155/2022/5438492</u>

Watson Caring Science Institute. (2023). *Watson's caring science and human caring* theory. <u>https://www.watsoncaringscience.org/jean-bio/caring-science-theory/</u>

 Yan, J., Wang, Y., Shao, J., & Yuan, H. (2018). Attitudes toward living organ donation and willingness to be a living organ donor among Chinese citizens in 3 cities. *Transplantation Proceedings*, 50(10), 3065–3070. https://doi.org/10.1016/j.transproceed.2018.06.042