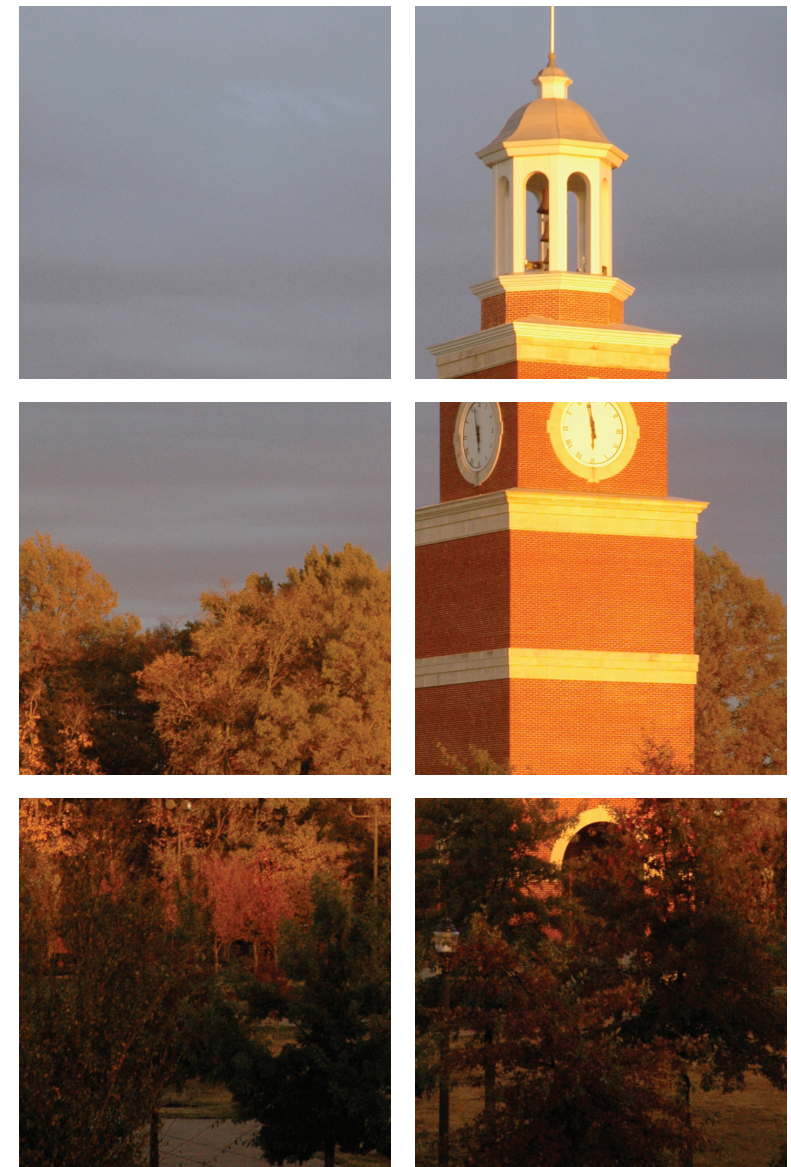




EXCELLENCE-DRIVEN | CHRIST-CENTERED | PEOPLE-FOCUSED | FUTURE-DIRECTED



UNION UNIVERSITY
FALL POSTER SESSION

November 27, 2012



Existence of Contention Between Sororities

Presenters: Morgan Turner, Rebecca Evans, and Anika Strand

Faculty Advisor: Rhonda Hudson

This research explores the notion of tension between three sororities on a private Christian university campus in the southeastern United States. It draws from previous studies that address the formation of identity, group standards, and stereotypes within sororities. This research poses the research question of whether or not contention exists between sororities. The study will include 100 participants, who are sorority members, who will complete demographic and TENSE scale questions. The sorority members vary in age, race, and levels of involvement in the organizations. The data will be analyzed using frequencies, percentages, and means. Means of each subscale and the total scale will also be employed. Additionally, t-tests and ANOVA will be used to analyze the data.

A Comparison of Self-Esteem Between Freshman and Senior Undergraduate Females

Presenters: Rebecca Tarleton and Hollye-Beth Brooks

Faculty Advisor: Rhonda Hudson

The researchers will investigate self-esteem between freshman and senior females at a Southeastern Christian University. Females often have a low self-esteem, which influences many different parts of their lives, such as the way they conduct themselves and the way in which they interact with others (Moksnes, Moljord, Espnes, & Byrne, 2010). Throughout history, females have struggled with this problem, regardless of age, race, or culture. It seems that starting in childhood, females struggle with self-esteem and feeling good about themselves, but it appears that as females grow older, they develop ways to cope, some successfully but some unsuccessfully. This study hopes to use research findings to compare average self-esteem scores using the Rosenberg Self-Esteem Scale as the measure. Analyses will include descriptive analyses for frequencies, percentages and means, and a t-test to compare two groups. ■

social work

The Effect of Student Athletes' Participation on Performance in the Classroom

Presenters: Shanika Jenkins and Chelsea Young
Faculty Advisor: Rhonda Hudson

Student athletes face tremendous stressors. In order to continue playing, they must maintain certain academic guidelines. The researchers intend to conduct a qualitative study with the student-athletes to ask how they are coping with the strains of two demanding forces: being a student and an athlete. Qualitative interviews that compare athletes and their academic performance help gain an understanding and allow you to see through their perspective. The criteria involved 18 undergraduate students, 6 sophomores, 6 juniors, and 6 seniors in a Southeastern University. Men and women basketball, men and women golf, and soccer team were evaluated. Participants were between the age of 18-22 years old. The researchers are going to do a snowball sampling method to recruit the participants. The type of analysis the researchers will use will be typology and word cloud methods.

Attention Deficit Hyperactivity Disorder, Effects on Grade Point Average

Presenters: Jamie Blurton and Hope Putman
Faculty Advisor: Rhonda Hudson

The purpose of this research is to find out whether undergraduate students with Attention Deficit Hyperactivity Disorder (also known as ADHD) have a lower cumulative grade point average (GPA) than those without ADHD. This study will query 420 male and female undergraduate students between the ages of 18-25, which is approximately 10% of the undergraduate student population, using the Adult ADHD Self-Report Scale (ASRS-v1.1) Symptom Checklist (Kessler, Adler, Demler, Faraone, Hiripi, Howes, et al. 2005). The data will be analyzed using frequencies, means for numerical data, percentages and frequencies for categories. The researchers will also treat ordinal/Likert scale as numerical and get means and or percentages. When comparing means between groups, a t- test will be used.

Students' Understanding and Lived Experience of Faith and Learning Through the Use of a Christ-Centered Core Value at a Southeastern Baptist University

Presenters: Makenzie Baker and Tayler Terry
Faculty Advisor: Rhonda Hudson

The integration of faith and learning is a popular topic for professionals at many faith based universities. Little research has been done regarding student's perception of the topic. The purpose of this study is to collect qualitative information on student's perception of the integration of faith and learning by understanding the university's core values. The researcher hypothesizes that the student's perception of the core value "Christ-Centeredness" effects their integration of faith and learning. The study will include 50 under graduate students from two sections of Dr. David Malone's World Literature II (ENG 202) spring class at a Christian University in the South-Eastern United States. The researcher will use a questionnaire by Burton (2003) to elicit qualitative information. The analyses will include frequencies and percentages and a typology of word cloud methods.

Non-traditional College Students: The Effect of Coping Strategies on Control Belief

Presenters: Jade Williams, Kyleigh Carter, Cassie Osborn, and LaDawn Steele
Faculty Advisor: Rhonda Hudson

The purpose of this research is to study the coping strategies among nontraditional university students. Research has shown that even though they have extenuating life circumstances, nontraditional students have developed healthier coping strategies than that of their traditional counterparts (Forbus, Mejta, & Newbold, 2011). While studying the coping strategies of nontraditional students, the researchers will use the control belief scale to measure the effectiveness of the students' coping strategies. The control belief scale has two 21 item sub scales that measure the perceived control people feel that they have over controllable and uncontrollable events in life. Analyses will include frequencies, percentages, and means; total scale score means; and t-tests (two groups) and ANOVA (3+ groups).



UNION UNIVERSITY

FALL POSTER SESSION

TUESDAY, NOVEMBER 27, 2012
Bowld 120 (Gym) | 11:00–12:30 p.m.

Student Presenters

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| Biology | Amanda Dick, Lesley Bright, Kelsey Wright, and Michelle Pardue "Effect of Temperature on Escape Velocity In Pimephales promelas" |
| | Betsy McCarter, Ashleigh Green, and Emily Bailey "The Effect on Attack Velocity and Prey Type of Astronotus ocellatus" |
| | Jared Davis "Can Mechanical Pitching Flaws Be Corrected" |
| | Taylor Maylott "Effectiveness of Thermal Imaging in Wild Turkey Surveys" |
| Nursing | Sanober Noorani "The Wit Project: Death Is Your Friend" |
| | Tammy Jeans "Not When All Is Well" |
| | Kathy Smith "More" |
| | Lexann Pate Bursi "The Tree of Life and Caring" |
| Pharmacy | Samarth Shah, Neil Hunter, and Devipriya Mohan "Progress Towards Structure-Based De Novo Design and Synthesis of Small Molecule Inhibitors of Protective Antigen (PA): An Anti-Toxin Approach for Combating Anthrax" |
| Social Work | Shanika Jenkins and Chelsea Young "The Effect of Student Athletes' Participation on Performance in the Classroom" |
| | Jamie Blurton and Hope Putman "Attention Deficit Hyperactivity Disorder-Effect on Grade Point Average" |
| | Makenzie Baker and Tayler Terry "Students' Understanding of Lived Experience of Faith and Learning Through the Use of a Christ-Centered Core Value at a Southeastern Baptist University" |
| | Jade Williams, Kyleigh Carter, Cassie Osborn, and La Dawn Steele "Non-traditional College Students: The Effect of Coping Strategies on Control Belief" |
| | Morgan Turner, Rebecca Evans, and Anika Strand "Existence of Contention Between Sororities" |
| | Rebecca Tarleton and Hollye-Beth Brooks "A Comparison of Self-Esteem Between Freshmen and Senior Undergraduate Females" |

biology

Effect of Temperature on Escape Velocity in *Pimephales promelas*

Presenters: Amanda Dick, Lesley Bright, Kelsey Wright, and Michelle Pardue

Faculty Advisor: J.R. Kerfoot

With the amount of invasive fish in the United States ever increasing, it was increasingly important to understand the effect of them on indigenous fish. This research explored the effect of temperature on indigenous prey escape velocity from an invasive predator species. The predator species, *Astronotus ocellatus*, was used because it was an invasive species that was new to the United States and its small thermal tolerance range. The prey species, *Pimephales promelas* was used because of its widespread distribution in the United States and wide thermal tolerance range which allowed escape at low temperatures. As the temperature increased, the prey entered into the thermal tolerance range of the predator and was eaten. Escape velocity of *Pimephales promelas* was measured at three different temperatures (20, 22, and 24°C) and compared. Preliminary results indicated that *Pimephales promelas* was able to evade *Astronotus ocellatus* due to its wider thermal tolerance.



The Effect on Attach Velocity and Prey Type of *Astronotus ocellatus*

Presenters: Betsy McCarter, Ashleigh Green, and Emily Bailey

Faculty Advisor: J.R. Kerfoot

Animal populations, wildlife habitats, and ecosystems are all effected by invasive species, which can have detrimental effects on the native ecosystem. The ability of an invasive organism to survive novel regions

are dependent upon the organism's ability to function efficiently within the novel environment. *Astronotus ocellatus* are ectotherms of an invasive nature. They are native to Amazonian regions, but they also have a known presence in southern Florida. Their presence causes a problem for the native species in regards to competition for food. However, due to the colder environment, *Astronotus ocellatus* may not thrive as well in the southern United States. This study sought to investigate the influence of temperature and prey type on the attack velocity of this invasive predator. Does the environmental temperature effect the predator's ability to capture prey? Does the predator favor a certain prey type over another in a temperature critical environment? During this study, *A. ocellatus* were introduced to two different temperature critical environments, hot and cold. They were also given two different prey types, elusive and non-elusive. The attack velocity of each predator was measured via the use of a high-speed camera. Based on results from the Kruskal-Wallis Test, the null hypothesis was not rejected, due to the p-value not being in the 5% range needed for rejection of the null hypothesis. Therefore, attack velocity and prey type do not vary due to temperature changes in the environment.

Can Mechanical Pitching Flaws Be Corrected?

Presenter: Jared Davis

Faculty Advisor: Andy Madison

Many arm injuries in baseball are due to bad pitching mechanics. Normally, pitching flaws are fixed by observing pitchers with the naked eye. In this research, 28 pitchers had their pitching mechanics analyzed by a biomechanical analysis at the American Sports Medicine Institute (ASMI) in Birmingham, Alabama. The biomechanical analysis focused in on 6 key components of the pitching delivery: stride foot, external rotation at foot contact, trunk rotation timing, maximum external rotation (MER), front knee flexion, and shoulder abduction at ball release. Pitchers were tested twice, and upon receiving their second biomechanical analysis were classified into one of the following categories: maintained, declined, fixed, improved, or did not fix the problem. Pitchers who fell into the "maintained" category

pharmacy

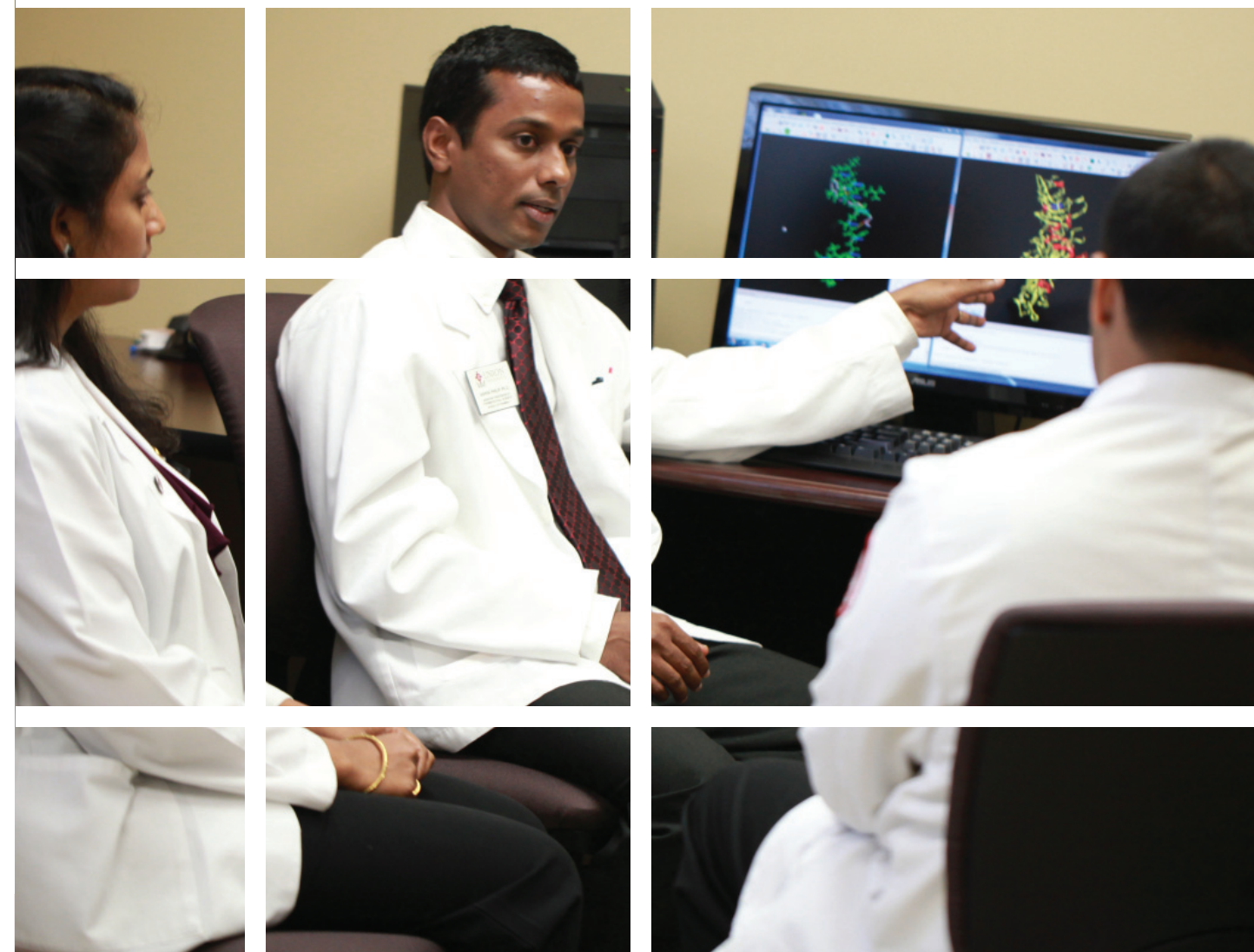
Progress Towards Structure-Based De Novo Design and Synthesis of Small Molecule Inhibitors of Protective Antigen (PA): An Anti-Toxin Approach for Combating Anthrax

Presenters: Samarth Shah, Neil Hunter, and Devipriya Mohan

Faculty Advisor: Ashok Philip and E. Blake Watkins

The significant threat to human health posed by anthrax highlights the need for identifying effective ways to combat this fatal disease. Since, proteolytic activation of Protective Antigen (PA) by cellular proteases is a vital step in anthrax

poisoning, we accomplished structure-based de novo ligand design and synthesis of small molecules with the potential to bind PA and block its proteolytic activation. Structure-based De novo design was accomplished with a suite of molecular modeling tools that include Biopolymer module and Docking suite of Sybyl X 2.0 on a ThinkCenter M Series desktop. A simple, yet highly efficient solution-phase parallel synthesis methodology was then employed to synthesize the "virtual lead" and a library of its structural analogues. This novel approach offers the advantage of selectively targeting and inactivating the bacterial toxin and effectively combat the threat posed by anthrax. ■



nursing

CONTINUED FROM PAGE 7

of care? I do not believe it can be clearly mandated. If this is true then we need to identify what obligation we have to our patients and to each other.

We must decide for ourselves that there is importance in making our interactions purposeful to provide the best care to each patient. Take the time to make sure a patient is as comfortable as possible when they are in your care. Be cognizant of the words you use. Ensure the way you describe a patient or procedure does not have a patient feeling as though they are a widget on an assembly line. You may be seeing a patient on a day in their life when they are frightened or are shocked from news anticipated or received. Remember the stress of your job or your life does not give you permission to neglect giving each patient the utmost respect with the care you give. When you find yourself seasoned with experience and the care you give comes easily to you, never forget that patients need privacy, dignity, and value.

Would our system and environment improve if we make a conscious effort to the people we serve to make a positive impact above what is mandated? Every day, despite where you are in your career, it is important to appreciate that we are treating people, not: diseases, room numbers, or worse, inconveniences. Regardless of their situation, define for yourself your obligation and remember each interaction offers an opportunity for more.

The Tree of Life and Caring

Presenter: Lexann Pate Bursi

Faculty Advisor: Brad Harrell

For me, trees have always been penetrating preachers. I honor them when they stand alone. They are like lonely persons. In their highest branches, the world rustles, their roots rest in infinity; but they do not lose themselves there, they struggle with all the force of their lives for one thing only: to fulfill themselves according to their own laws, to build up their own form, to represent themselves. Nothing is more exemplary than a beautiful, strong tree. When a tree is cut down and reveals its naked death-wound to the sun, one can read its whole history in the disk of its trunk: in the rings of its years, its scars, its struggles, all the suffering, all the sickness,

all the happiness and prosperity, the narrow years, the attacks withstood, and the storms endured. A seed is hidden within, a spark, a thought; I am life from eternal life. The attempt and the risk that God took with me is unique, unique in the form and veins of my skin, unique the smallest play of leaves in my branches and the smallest scar on my bark. I was made to form and reveal the eternal in my smallest special detail. My strength is trust. I live out the secret of my seed to the very end, and I care for nothing else. I trust that God is in me. When we cannot bear our lives any longer, then a tree has something to say to us, "Be still! Be still! Look at me! Life is not easy, life is not difficult." Hope comes from the kindness of strangers and long lost friends. Hope deferred makes the heart sick, but a desire fulfilled is a tree of life (Proverbs 13:12). We need people in our lives, because our lives are fragile. Some of us end and begin with a primal need for love. Let God speak within you, and your thoughts will grow silent. You are anxious, because your path leads away from home. But every step and every day lead you back again. Home is neither here nor there. Home is within you, or home is nowhere at all.

Both therapeutic touch and developing the nurse-client relationship are two nursing implications in agreement with the film, poem, and work of art. Therapeutic touch is a vehicle for comfort, caring, and presence that creates possibility. Therapeutic touch invites a shift from disease-state focus to personhood focus that is freeing and reawakens the essence of nursing. In developing the nurse-client relationship, trust, respect, professional intimacy, empathy, and power are of utmost importance. Trust is critical, because the client is in a vulnerable position. Respect is the recognition of the inherent dignity, worth, uniqueness of every individual, regardless of personal attributes, status, and nature of health problem. Professional intimacy is the type of care and services that nurses provide. Empathy is the expression of understanding. Empathy includes appropriate emotional distance from the client to ensure objectivity and an appropriate professional response. Lastly, the nurse-client relationship is one of unequal power. The appropriate use of power, in a caring manner, enables the nurse to partner with the client to meet their needs. ■



were already pitching optimally during their first evaluation. Based on the total number under each category, it was possible to see whether or not the biomechanical analysis helped in fixing the pitching flaws and also which flaws were harder to fix than others. Of the pitchers who were initially out of the optimal range after their first testing, 70% improved upon their stride foot mechanics, 64% improved on external rotation at foot contact, 65% improved on their trunk rotation timing, 29% improved on their MER, 57% improved on their front knee flexion, and 71% of the pitchers improved on their shoulder abduction at ball release. At the end of the study, most pitchers fixed or improved on the flaws they were instructed to fix after their first analysis. The flaw which was hardest to fix was increasing MER, which is understandable due to each participant's individual physical make-up.

Effectiveness of Thermal Imaging in Wild Turkey Surveys

Presenter: Taylor Maylott

Faculty Advisor: Andy Madison

Wildlife management is necessary for many species, including wild turkey (*Meleagris gallopavo*). An important aspect of wildlife management is assessing population size. Many methods have been used for estimating population size or density, one of which is the use of thermal imaging or infrared video technology. Population densities of white-tailed deer (*Odocoileus virginianus*) can be reliably estimated from surveys using helicopter-mounted infrared video. Our objective was to determine if the same method could be used to successfully estimate wild turkey population size. It had been postulated that since turkeys gather together in large roosts overnight that these could be spotted using thermal imaging cameras. Flights using fixed-mounted thermal imaging cameras were performed on the Milan Army Ammunition Plant (MAAP) over a series of 4 nights in January 2012. The videos were extensively analyzed, where an attempt was made to count and identify to species any animal observed. Cows, deer, turkeys, and unknown animals were observed throughout the study site, but turkeys only accounted for ~5% of the total number of animals observed. In addition, no turkey roost site was identified. Animal size, excessive habitat cover, and species behavioral characteristics may all play a factor in the low numbers of turkeys observed. It was determined that this method is not an appropriate means of estimating turkey populations. ■

nursing

The Wit Project: Death is Your Friend

Presenter: Sanober Noorani

Faculty Advisor: Brad Harrell

My creation is inspired by the movie and poem because it has many similar themes from both of them. At various points in the poem the author refers to death as temporary, a means to an end for example “One short sleep past, we wake eternally,” (Donne, 1631) similar is my belief about death. In my poem I tried to portray death as a trail to reach God al-mighty “Take you to your true King; your journey has come to an end” I also believe that if one changes their perspective of death, then death can become your friend. My religious doctrine preaches the purpose of life is to be united with God after death; my soul was separated when I was given life and it longs to reach God. This concept is reflected in my poem towards the end when I refer to death as a path to meet the soul. John Donne, from his poem, also believed in eternity, thus he must believe in life after death and death being the last journey our life takes. Vivian Bearing was the main character of the movie Wit, she would reminisce her life before being hospitalization throughout the movie. She would remember the good moments and the bad moments. In the beginning she recalled general events from her life, then as time passed on she remembered all the mistakes she made in her past, lastly she remembered good moments of her past for example her childhood with her dad. The closer we get to our time of death, God helps us let go of things and people. He wants us to enter this last trip with good thoughts



and helps us forgive ourselves and others. Ms. Bearing went through this event of forgiving herself. Towards the end of the poem I write about “death cleans all... forgive life and embrace the end” my perspective is when death approaches leave behind all the mistake and the goodness of life and take in death like it’s an invitation to meet God. Some of these concepts sound good philosophically, but practically it may be tough thus having a positive outlook is a start and that is my attempt with my creation.

Two nursing implications that come to mind are dignity and compassion. At the end of the movie when Ms. Bearing passes away the resident working with her starts to do CPR without realizing she has a DNR. The nurse advocates for the patient by trying to get him to stop, but he ignores her and continues. However, when the resident finally comes to a realization that he has done something wrong he tries to make up for it by trying to offer his help to the nurse, but she refuses him. The resident’s action takes all dignity away from the patient, but the nurse tries to restore her dignity by properly giving end of life care to the patient. Dignity is a human right and it is the nurses’ duty to preserve it for their patients. My creation talks about treating death kindly it is implying that the one dying needs to be treated with respect and kindness; death is not to be treated in a demeaning manner. Compassion is demonstrated through John Donne’s poem when he talks about “Thou’rt slave to fate, chance, kings, and desperate men.” In this section he is proclaiming that death is a slave of God, it has no choice but to follow orders and take with him whoever’s time is up. Death see’s no difference between a pauper or king; in the same manner compassion should be equal—for everyone. As a nurse we are taught that we cannot feel the pain of the patient, but we can understand their tribulations and offer support. In the movie the nurse assigned to Ms. Bearing shows compassion when she sits with her a few minutes to talk. My poem talks about “kindly we must treat” meaning regardless of the situation the patient is in or regardless the patients’ identity we should have compassion towards the patient because that is gift of God we can deliver to them. The patients are at their lowest point in the hospital and if a nurse is empathetic that can make a difference to that patient.

nursing

Not When All is Well

Presenter: Tammy Jeans

Faculty Advisor: Brad Harrell

The movie “Wit” and the poem “Death Be Not Proud” reshaped my perception of both life and death. I have come to the realization that the personification of death was necessary to demonstrate the actual perception of death. We as mortal beings view death as an imminent and dreaded fate for us all. However, here death is viewed as a dependent force that is overcome at the moment of death when shortly followed by eternal immortality. I am so much more appreciative of the blood that Christ shed on Calvary to conquer death itself. My faith is rooted in the fact that God loved us so much that He gave us eternal life through His son.

In my poem, “When All is Well”, I attempted to convey that death is not quickly embraced when it comes suddenly, but “when all is well”, death can be viewed as a time of reflection and even a time of peace. I also wanted to express that wit and wealth are not the most important aspects of this life on earth. Similarly, in the movie “Wit”, Vivian Bearing comes to the understanding that she could have exercised more empathy and compassion during her life as a professor or English literature. As her disease progressed, she experienced how it felt to be treated as a guinea pig or experiment and not a human being with feelings. However, I do believe that Vivian came to be at peace with both her life and pending death simultaneously.

There are many nursing practice implications in agreement with the movie and both poems. The most significant implication in my opinion is empathy. It is imperative to understand that empathy should be considered as a chief cornerstone, not only in nursing, but in life as well. Empathy is being cognizant, compassionate, and understanding of a person’s circumstance. In my opinion, neither life nor death can be empathetic. However, people can and should strive to exercise empathy towards everyone.

Another nursing implication of importance is respect. I believe that our respect for others exemplify the respect that we have for ourselves. In the movie, the main character, no matter how unrelenting or apathetic she may have been in the past, should have been treated with

respect from all hospital staff. Instead, she was treated merely as a research project.

Throughout this journey I have learned so much. However, after watching the movie and reading the associated poem, I have more of a sense of integrity and have more respect for patients. Both empathy and respect are two of the most significant practices in nursing and these characteristics cannot simply be learned. They are imbedded in us and are illuminated through our care of others.



More

Presenter: Kathy Smith

Faculty Advisor: Brad Harrell

There are many times in life when we connect with another person and, regardless of how brief, it can affect you both. As Dr. Bearing narrates her journey through ovarian cancer in Wit, she reveals the emotion and power involved in our everyday interactions. The poem I wrote embodies the concept that we have a choice to make with every person we encounter. We can choose to embrace each moment and understand there are battles each person struggles with that we may not know. However, what we choose to do in each moment can make a situation better or worse.

As a nurse, there are many implications in this poem for practice. It is easy to focus most on those things that are mandated: the rights for giving medications, charting our assessments, and giving report. However, what if there is more to health care than what we are taught in school and orientation? How do you mandate this type

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