The Health Connection at Cedar Crest College

The First Annual Conference on Health and Wellness:
Theory, Research & Practice

- Presentations by Students and Faculty
- Workshops, Posters and Exhibits

April 29 - 30, 2004
# CONFERENCE SCHEDULE
Tompkins College Center

## THURSDAY, APRIL 29

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<th>Time</th>
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| 6:30 p.m. | Welcome: Dorothy Gulbenkian Blaney, Ph.D.  
President, Cedar Crest College  
Health and Wellness at Cedar Crest College | Samuels Theatre                              |
| 6:45   | Keynote Speakers: A Vision for the Future  
Lawrence Paul Levitt, M.D.  
Clinical Professor of Neurology, Cedar Crest College  
Senior Consultant in Neurology, Emeritus, Lehigh Valley Hospital  
Micah Sadigh, Ph.D.  
Assistant Professor of Psychology, Cedar Crest College  
Invitation and Overview for Friday, April 30  
Cynthia A. Metzler, Provost, Cedar Crest College |                                            |

## FRIDAY, APRIL 30

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| 8:30 a.m. | Welcome: Creating a Culture of Wellness at Cedar Crest  
Cynthia A. Metzler, Provost  
Speaker: The Challenge Ahead  
E. Allen Richardson, Ph.D.  
Associate Professor of Religion, Cedar Crest College | 1867 Room                                    |
| 10:00-12:00 | Posters/Papers/Workshops (Concurrent)  
College Center |                                            |
| 12:00 p.m. | Speaker: What We Have Accomplished  
Joan M. Laffey, R.N., M.S.N., Dean of Student Affairs  
Cedar Crest College | 1867 Room                                    |
| 1:00-4:00 | Papers/Workshops (Concurrent)  
College Center |                                            |
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<td>9:00-10:00</td>
<td>Microbes on the Move: Global Health Issues in the 21st Century</td>
<td>Bio 336 Molecular Genetics II Students, K. Joy Karnas, Ph.D.</td>
<td>SCI 139</td>
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<td>10:00-11:00</td>
<td>Body Listening: How Good is Your Hearing?</td>
<td>Nancy Johnston, R.N., M.S.N.</td>
<td>ALH 214</td>
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<td>Spa Cuisine Made Simple</td>
<td>Martine Scannavino, M.S., Jane Ziegler, M.S.</td>
<td>MIL 19</td>
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<td>The Effects of Cats on Human Physiological Reactivity to Stress</td>
<td>Megan Kees, Student</td>
<td>TCC Alc C</td>
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<tr>
<td>10:00-11:00</td>
<td>Prayer Ties Project</td>
<td>Art Society and Jill Odegaard, M.F.A.</td>
<td>TCC South Annex</td>
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<td>11:00-12:00</td>
<td>Wellness and the Search for Meaning in the Changing American Religious Landscape</td>
<td>Miranda Carman, Gurpreet Kaur, Lorraine Peterson, Students, Catherine Cameron, Ph.D., Allen Richardson, Ph.D.</td>
<td>ALH 211</td>
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<td>1:00-2:00</td>
<td>What Is Your Resiliency Quotient For Today? Where Are You in Terms of Being Resilient?</td>
<td>Maryanne Jones Godbout, R.N., M.S.</td>
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<td>2:00-3:00</td>
<td>Biology in the News: Stem Cells and Cloning</td>
<td>Audrey Ettinger, Ph.D.</td>
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<td>Faculty Engagement of Students in Health and Wellness Behaviors</td>
<td>Joan Timalonis, M.S.N.</td>
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<td>3:00-4:00</td>
<td>Piece of Mind (Dance Performance)</td>
<td>Elizabeth Bach, Ellen Doyle, Nicole Hess, Sara Mahoney, Jacqueline Pinder and Angela Romano, Students</td>
<td>Samuels Theatre</td>
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<td>POSTERS</td>
<td>10:00-12:00</td>
<td>All Posters</td>
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<td>PAPERS</td>
<td>10:00-10:15</td>
<td>The Queen Conch (Strombus gigas): A Case Study of the Value of Biodiversity and Its Relationship to Health and Wellness</td>
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<td>Overeating: Setting Your Goals for a Healthier Lifestyle</td>
<td>Kristin Janney, Gayle Thear, Students</td>
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<td>11:30-11:45</td>
<td>Can We Really Map Genes for Complex Disease?</td>
<td>Richard Kliman, Ph.D.</td>
<td>TCC 329</td>
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<td>1:00-1:15</td>
<td>The Effects of the Exxon Valdez Oil Spill on Coastal Native American Communities</td>
<td>Nicole Sperbeck, Student, John Cigliano, Ph.D.</td>
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<td>1:30-1:45</td>
<td>Meeting the Challenge of Developing a Global Perspective in the Health Care Arena</td>
<td>Sandra Leh, R.N., M.S.N., Wendy Robb, R.N., M.S.N.</td>
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<td>2:00-2:15</td>
<td>Security of Personal and Medical Data: HIPAA Model or Myth</td>
<td>Marie Wilde, M.S.</td>
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<td>2:30-2:45</td>
<td>A Synthesis of Nursing Research on the Stress Management of Nursing Students</td>
<td>Loriann Beck, Student</td>
<td>SCI 139</td>
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Microbes on the Move: Global Health Issues in the 21st Century

Almost daily, the smallest of organisms find their way into the largest news stories. Letters tainted with anthrax and ricin fill us with dread as ordinary citizens continue to be targeted in terrorist attacks. The spread of the influenza virus seems to be greater now than ever. Are particular strains capable of changing hosts? When will the next pandemic occur? The meat industry struggles to quantify and contain mad cow disease across an ever-expanding global market. Is our food safe? Even the Ebola virus, a concern primarily for remote regions of Africa, continues to find its way into American popular literature and movies. What is it about these organisms that make them so powerful? Why have they so successfully invaded our lives? What new insights have come from recent research, and what ethical concerns have scientists encountered? Participants in this workshop will contemplate these questions and more, as the moderators initiate discussions on the worldwide impact of deadly microbes.

Body Listening: How Good is Your Hearing?

Success in accurate evaluation of one’s bodily needs is essential to health and wellness. Purpose: This 1 hour workshop will consider body listening as defined by Price (1999). Exploration of practical application of this knowledge to one’s daily health includes discussion of signals of hunger, thirst, fatigue, and satiety. Basic physiologic pathways will be explored. An experiential approach using self-assessment tools and a brief Zen meditation allows personal reflection. Participants will leave with practical knowledge and resources to evaluate their own skill at body listening and empower them to trust what the body is saying in order to take action.
Spa Cuisine Made Simple

“Spa Cuisine Made Simple” will be a one-hour cooking program that will explore the concepts of Spa Cuisine. We will present an array of culinary techniques for vegetable, whole grain and legume preparations that can easily be incorporated into anyone’s daily menu plans.

Recipes will incorporate ingredients that are available in local markets, yet will reflect the influences and flavors of many diverse cultures.

The program will be repeated two times throughout the day on Friday April 30th in the Allen Center for Nutrition Foods Lab. Participants will be limited to 20 for each session and registration/sign up will take place on April 29th at the Foods Lab.

Introduction to Mind, Body and Spirit Paradigm and Applications of an Integrated Approach to Education and Psychology

This workshop will combine theoretical issues and experiential applications for mind, body and spirit development. The presenter is a psychologist and educator who has developed a combination of traditional psychotherapy (over twenty years experience with children, families, and elders) with skill development and application of Tai Chi, Reiki and Shiatsu. The System Developed is called Integrated Psychology where the total person (social, emotional, cognitive, physical, spiritual, financial, and creative expression) is assisted in the process of change. There are applications and implications to professional training of teachers and professionals with the goal of renewal as the optimal outcome.
The Effects of Cats on Human Physiological Reactivity to Stress

This study will explore whether the interactions between a person and a cat causes lower levels of physiological signs of stress in the person. To accomplish this, human-cat interactions will be observed under several conditions using female subjects from an all-women’s college. The first condition is the presence of the animal in the room with the person. This is a no-interaction control measure. The next will involve the person petting the cat and the third will be them listening to the cat purr. Finally, the last measure taken will be with the person petting the cat and listening to it purr. Previous research studies have shown that the presence of a pet lowers stress responses; therefore, the same result is expected to occur in this study. However, this study further explores the interactive components between the person and the pet. It is hypothesized that either petting the cat or listening to it purr will reduce the physiological signs of stress, but that the combination of both will have a greater effect than either alone. Future research could be conducted using different pets as well as varying subject populations (i.e. male v. female, older v. younger, etc.)

Prayer Ties Project

This workshop will involve the making of fabric bundles or amulets that will hold the wishes, hopes, dreams and prayers of the each participant. The bundles will be made of colorful fabrics that are decorated with beads, imagery and symbols that reflect the interest and the diversity of everyone involved in the project. The finished bundles will be strung together and displayed as a testament of a community coming together to share their dreams, hopes and prayers. The workshop will be ongoing from 10:00 a.m.-4:00 p.m.
Wellness and the Search for Meaning in the Changing American Religious Landscape

Since reforms to U.S. immigration law in 1965 and the opening of the nation’s borders to the Eastern Hemisphere, significant numbers of Hindus, Buddhists, Muslims, Sikhs and Jains have migrated to the United States. Erecting temples, monasteries, pilgrimage centers and mosques, they have established a presence that is transforming the nature of religion in America.

This change has profound implications for wellness including the presence of a variety of dietary traditions associated with differing aspects of purity and connections to deity. In addition, the “new” religions of America have altered our perception about the role of meditation as a significant part of our search for wellness. Traditional forms of medicine such as Ayurvedic medicine, can now be found in mid-size cities such as our own.

Using a CD Rom, “On Common Ground: World Religions in America,” and drawing on the research of the Pluralism Project at Harvard University, the researchers will describe this transformation in the American religious landscape. In particular, they will explore the implications for community well being of such important facilities as the Vraj Hindu Temple in Schuylkill County, Pennsylvania. As the only authorized temple of Hindu bhakti or devotional sect in India, the Vallabha Sampradaya, this temple maintains a presence that connects wellness with a holistic understanding of mind, spirit and body. Pilgrims routinely consume a special form of food called prasad that has been blessed the resident deity, Sri Nathji. In addition, they observe rigid standards of purity that emanate directly from the Indian tradition. Unlike more secular understandings of wellness, rooted in individualism, this tradition suggests that its followers must surrender the primacy of self to deity, performing seva or service to Krishna.
What Is Your Resiliency Quotient For Today?
Where Are You in Terms of Being Resilient?

Life is full of experiences of adversity whether they are external, within the family, or within the individual. While some individuals seem to be innately resilient, everyone has the ability to develop and enhance their resiliency factors. Resiliency most commonly is defined as the ability to spring back from and successfully adapt to adversity. Higgins, 1994 views resilience as “not a collection of traits, but a process that builds upon itself over time” suggesting a developmental process that results in a resilient individual. It is a “both/and” phenomenon that is determined by an individual’s genetic temperament and their interaction with environmental factors.

This workshop will present Grotberg’s, 1999-resiliency paradigm of “I have,” “I am”, and “I can”. Participants will be provided the opportunity to assess their resiliency quotient for the day and to experientially try two strategies to enhance their personal resiliency. The development of the resiliency building blocks will be described utilizing Erickson’s developmental phases of trust, autonomy, initiative, industry, and identity. Didactic presentation will include the description of the seven resiliencies and how their development influences the individual’s personal resilience to life’s everyday adversities. The strategies utilized during the experiential section of the workshop will focus on positive energy management rituals and the development of effective interpersonal skills.
WORKSHOP SESSION 5:
Martine Scannavino, M.S., Jane Ziegler, M.S.
Nutrition
1:00-2:00 P.M. Miller 19

Spa Cuisine Made Simple

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WORKSHOP SESSION 6:
Audrey Ettinger, Ph.D.
Biological Sciences
2:00-3:00 P.M. Miller 20

Biology in the News: Stem Cells and Cloning

Since the isolation of human embryonic “stem cells” in 1998, issues surrounding the use of these cells have been discussed in the popular media. This workshop will provide the background information needed to understand what stem cells are, why they may be useful in treating human diseases, and why there is so much controversy over their use. We will also discuss human cloning and how it relates to the stem cell debate. Participants will have an opportunity to ask questions about these complex issues and share their own opinions on the debate.
Faculty Engagement of Students in Health and Wellness Behaviors

Compassion fatigue and burnout are two of the buzz words that one hears in reference to the many challenges faced by health care professionals. These phenomenon are being examined as potential causes for the decrease in the interest to become a nurse and the subsequent nursing shortage. Nursing faculty recognize that the rigors of the nursing curriculum can also increase one’s anxiety and stress levels which can lead to a similar type of burnout. In addition, the non-traditional student population’s stressors of trying to balance the family and work responsibilities add to this scenario. Therefore, incorporation of health and wellness behaviors into the curriculum has been identified by the nursing faculty as a necessary component of the nursing program at Cedar Crest College. Caring for the care-giver is emphasized in order to care for others. In addition to the program of studies which incorporates many health promotion issues, nursing faculty practice the art of their nursing with their students in order to promote their well-being.

Piece of Mind

This composition is a presentation of overcoming internal fears of loneliness, failure, success and confusion. The main female character comes to terms with her fears by facing them through a movement confrontation. This choreographic study was developed through aesthetic experimentation of creating and breaking barriers. The movement was applied to further develop a somatic relationship between the representation of the conscience and the subliminal.
The Queen Conch (Strombus gigas):
A Case Study of the Value of Biodiversity
and Its Relationship to Health and Wellness

Biological diversity, biodiversity, is being lost at an accelerating rate due to invasive species, habitat destruction and fragmentation, overexploitation and pollution. All of which are anthropogenic in nature. The mission of the discipline of Conservation Biology is to halt the loss of biodiversity. But why should we care if biodiversity is lost? The purpose of this presentation is to demonstrate that biodiversity has value, and because it has value, should be saved. Two types of value have been ascribed to biodiversity – inherent value and utilitarian value. I will discuss both but focus on the utilitarian value of biodiversity and how it relates to human health and wellness. My research on queen conch (Strombus gigas) will serve as a case study to illustrate the utilitarian value of biodiversity, causes that led to the decline of a specific species and how conservation biologist go about discerning the cause and possible solutions to biodiversity loss.

Overeating: Setting Your Goals for a Healthier Lifestyle

According to nursing research, obesity is a complex problem currently not being addressed. Overeating tends to occur when any of the higher Maslow’s needs are not being met. Learning self-care strategies to build resources is essential to achieve the goals of a healthy lifestyle. The ultimate outcome is when patients take control and implement self-care strategies into their own life. This presentation supports nurses providing individualized care for patients in order to reach their maximum potential through support, education, and motivation. Three nursing research articles on emotional eating, restructuring lifestyles for weight management, and self-care strategies for lifestyle changes are synthesized. These articles are representative of correlation quantitative research; a qualitative, phenomenological, comparative case study; and a second qualitative, phenomenological research study respectively.
Can We Really Map Genes for Complex Disease?

Now that most of the human genome has been sequenced, greater attention is being paid to “personalized medicine” – that is, personalized on the basis of one’s genes. It is generally accepted that genetic variation among individuals contributes to variation in the likelihood of developing complex diseases (e.g., various cancers and diabetes); research into disease etiology falls into the realm of functional genomics. It is also known that genetic variation in enzymes contributes to variation in the efficacy of certain drugs; research in this area falls into the realm of pharmacogenomics. Thus, we often hear that medicine could be personalized if we know which versions of relevant genes an individual possesses. Ethical concerns notwithstanding, the principal technical challenge is identifying the relevant genes. Large sums of money are being dedicated to association studies – that is, studies that aim to identify relevant genes by correlations between the states of genetically linked markers (e.g., presence/absence) and the states of the characteristic of interest (e.g., presence/absence of disease, form of an enzyme). However, the evolutionary history of humans can not be ignored, for it is responsible for the patterns of genetic variation present today. There is good reason to predict that association studies will often fail, due to a paradoxical inverse relationship between the availability of genetic markers and their correlations with characteristics of interest. That is, the problem is not one of technological limitation; it is one of biological limitation.
The Effects of the Exxon Valdez Oil Spill on Coastal Native American Communities

The Exxon Valdez oil spill, which occurred on 24 March 1989, affected not only marine biodiversity but also the lives of many Native Alaskans who inhabit the coastal regions of Prince William Sound, the Kenai Peninsula, and the Alaskan Peninsula. These Aleut and Chugach Indian communities depend heavily on subsistence harvesting. Consequently, the catastrophic loss of biodiversity, due to both the direct and indirect effects of the spill, dramatically changed the way in which they live. In addition, the introduction of toxic chemicals from the crude oil, such as benzene and polycyclic aromatic hydrocarbons, created an opportunity for human health problems to arise. We will discuss the economic and cultural impact of the spill, as well as the possible human health effects resulting from the ingestion of crude oil.

Meeting the Challenge of Developing Global Perspective in the Health Care Arena

A student/faculty international exchange is an effective tool that can be used in health education programs in response to the challenge of developing a global perspective in health care arenas. The scope of this paper explores the use of a student/faculty exchange as an intervention to help facilitate international partnerships between schools of nursing. Bandura's social learning theory provides the conceptual framework from which to model the exchange. This particular exchange is a collaborative effort that offers faculty and students the opportunity to acquire an international view of health care by comparing and sharing nursing and health systems data across populations, settings, and geographic areas. Strategies for developing a successful exchange program, benefits of the intervention, obstacles involved in the process, and evaluation methods are addressed.
Security of Personal and Medical Data: HIPAA Model or Myth

Privacy, the ability of an individual to control the dissemination of information about himself/herself, has long been considered an important right, protected by law and supported by organizations and institutions of all types. However, the development of methods to preserve the security of personal and medical information has failed to keep pace with the unprecedented growth of complex database systems for storing this data and sophisticated technologies for accessing it.

The Health Insurance Portability and Accountability Act (HIPAA) security rules were issued last year in an effort to contain violations of patient confidentiality and ensure that data will be available only to appropriate entities.

This paper will explore some of the digital technologies that are currently being used and their effect on patient privacy. These include Smart Cards, biometrics, Virtual Private Networks (VPN), firewalls, identity management, and wireless. It will then assess the scope of the problem and the likely effectiveness of HIPAA in ensuring security of data.

A Synthesis of Nursing Research on the Stress Management of Nursing Students

In the high stress field of nursing, one of the biggest obstacles that nursing students have to overcome to successfully complete their education is stress. The nursing student of today has additional responsibilities and commitments such as employment and family that compete for time with their clinical and class schedule. In keeping with the “Nurse heal thyself” concept, the nursing student must learn to handle many stressful situations without letting the stress overwhelm them. A nurse cannot help heal their patients if they are not taking care of themselves first. This presentation synthesizes current nursing research on the topic of stress management specific to nursing students.
Examination of Alumnae’s Post-Graduation Reaction to the Ethical Life Program

Crystal Copp, Student
Kerrie Baker, Ph.D.,
Kathleen Boland, Ph.D.,
*Psychology*

Ethical Life is a course that all Cedar Crest students must take as a general education requirement. The course provides students with the opportunity to explore their own values and beliefs in the context of an individual’s responsibilities to her or his community. The in-class discussion (lecture) allows students to evaluate their personal values, ethical theories, and theories of community and social justice. The other part of course is designed to provide hands-on learning experience in the community. The objective of the study is to explore how the Ethical Life Program influences Cedar Crest students’ ethical and moral awareness and future responsibilities to their community. Subsequently, students currently taking the course are being surveyed at the beginning and end of the semester to monitor their beliefs and values related to civic health and obtain reactions to their classroom and service-learning experience. In addition, students who have since graduated were surveyed for their short- and long-term perceptions of the value of the Ethical Life Program. This poster will present the findings from a total of XX responses received from alumnae. Implications of their findings will be discussed.

A Longitudinal Study of the Psycho-Social-Spiritual Health of Cedar Crest College Students

Kerrie Baker, Ph.D.,
Kathleen Boland, Ph.D.,
Dean Joan Laffey, R.N., M.S.N.

Popular culture today enforces the notion of physical fitness, nutritional food diets, and connecting with our selves and family. All of these factors are critically important for women in early adulthood. Subsequently, Cedar Crest College has initiated an undergraduate women’s initiative for promoting psychological, social, and spiritual health. Traditional freshmen and sophomore students will be surveyed for their attitudes, lifestyles, and behaviors related to many areas, including their relationship with others, their food choices, sleeping patterns, risky behaviors, and mental health. These individuals will be followed during their college careers to monitor changes that are expected to occur because of Cedar Crest College programs and initiatives (e.g., Rodale Aquatic Center, speaker series). It is expected that students who receive information and resources while at Cedar Crest College will decrease risky behaviors and develop steady, positive behavioral patterns that will prevent disease in the short- and long-term. Further, this study is expected to demonstrate a positive relationship between a healthy lifestyle and physical health, emotional health, and academic success. Findings from the Spring 2004 semester will be presented as a baseline for the college.
Effects of Lifestyle and Working Conditions on Judgment of Responsibility for Negative Health Outcomes

James Scepansky, Ph.D.
Psychology

The Just World view is characterized by a tendency to believe that, good or bad, people get what they deserve in life (Lerner, 1970). In many ways, this belief may be considered adaptive; it allows us to perceive our world as stable and predictable. However, belief in a just world has some interesting, yet tragic consequences, such as “blaming the victim.” The current study examined belief in a just world regarding judgments of responsibility for an individual’s negative health outcome. Participants read one of three scenarios (mock court transcripts) about a factory worker (Jake) diagnosed with cancer, and evidence implicating his employer’s working conditions. All details were identical with the exception of information regarding Jake’s smoking behavior. For some participants, Jake was described as having never smoked. A second group read that Jake smoked for a total of one year, but quit five years prior to being diagnosed with cancer. The final group read that Jake smoked for 12 years, but quit 5 years prior to being diagnosed. Jake was rated as more responsible for his cancer diagnosis, only if he had smoked for 12 years compared to when he Never Smoked or Smoked for 1 Year. In contrast, if Jake was suggested to have Never Smoked or to have Smoked for 1 Year only, the factory was judged to be more responsible for the cancer. Further research should be done to determine other possible limitations of the belief in a just world and the tendency to blame victims.

A Systematic Evaluation of the Healthy U Program at Cedar Crest College

Aura Nicholson, Student
Kerrie Baker, Ph.D.,
Dr. Katheen Boland, Ph.D.,
Dean Joan Laffey, R.N., M.S.N.

The Healthy U Program is a 10-12 week program that encourages participants to develop behaviors that will contribute to a lifetime of health. Each participant sets personal goals and tracks their progress towards goal achievement. Participants enroll in the program as individuals or in small groups within 1 of 3 different categories depending upon their interests. Objective baseline data (e.g., weight, percent body fat, blood pressure) is gathered at the beginning of the program and at monthly intervals throughout the program. In addition, a survey designed to capture participant’s attitudes toward Healthy U is administered at the beginning and conclusion of the program. This systematic evaluation of the Healthy U Program is designed to determine its effectiveness in encouraging faculty, staff, and students to develop healthy lifestyles. Preliminary data from a pilot program will be presented.
A Collection of Psychology Research Simulations

Cortney Capen, Karen Cook, Kathy Cunningham, Ariel Gallagher, Jessica Hazel, Jessica Hopper, Joanne Hosni, Angelique Jackson, Manpreet Kaur, Megan Kees, Sabrina Kulakowski, Kristen Kuloy, Nicole Lupco, Heleanna Machlis, Jeanne Marsteller, Devon Mauricio, Randei McTaggart, Noelia Morales, Kathleen O’Connor, Lorraine Peterson, Tiffany Polek, Stephanie Reeder, Faylie Schultz, Alyson Schwenk, Sharon Smith, Carolyn Steinbiss, Annalisa Sutera, Jaclyn Troia, Tiffany Unterberg, Students Kerrie Baker, Ph.D.

Psychology

In the PSY 211-212 sequence for experimental and statistical methods, groups of students at the sophomore and junior levels have designed a variety of psychology experiments. Using simulated data, the students will present the abstracts of their studies to show the breadth and depth of creativity, execution, and application. Their studies are as follows:

- The Relationship between Exercise Intensity and Mood in College Students
- The Effects of Sleep Patterns on College Students’ Performance
- The Effects of Media on the Promiscuity and Sexual Activity in Adolescents
- The Connection between Childhood ADHD Medication and Substance Abuse in Adults
- The Correlation between Parenting Styles and Substance Use in Adolescents
- The Relationship between the Competency of a Social Worker and Religious Affiliation
- Pregnancy and its Effects on Marital Relationships
- The Effects of Television on Children
- Clinical Depression: Animal-Assisted Therapy in Conjunction with Medication
- Depression in Children: A Longitudinal Study of Children from Divorced and Intact Families
- Color Schemes in the Work Environment and Their Effect on Workers’ Motivation, Job Satisfaction and Performance
- Rate of Treatment Success in Adolescent Onset Anorexia Nervosa

Amber Budraitsis, Student

Nutrition

Anorexia nervosa is a nutritional and psychiatric disorder that is diagnosed according to the Diagnostic and Statistical Manual-IV. This disease features self-starvation and can cause a variety of medical and nutritional consequences in addition to psychiatric instability. A review of the available literature was done in relation to treatment options. Studies showed that clearly a combination of treatment types is more beneficial than an isolated treatment. Inpatient therapy coupled with psycho-therapy and medication seems to show the most promise in aiding patients to recover from this disease. More research is needed on the course of outcome of anorexia nervosa.
**Is Hormone Replacement Therapy Effective in the Treatment of Depression and Mood Disorders During Menopause and Perimenopause?**

Karen Bednar, Student  
*Psychology*

There is a long history linking mood disorders with menopause. As far back as the 1700’s scientists noted that women in midlife were affected with melancholy, hysterical disorders and giddiness of the head. By 1980, The American Psychiatric Association concluded that there was no unique form of depression found during middle age. Current scientific literature suggests there is a correlation between mood disorders, menopause and perimenopause.

A woman is considered to be in menopause when the ovaries stop functioning and there are 12 consecutive months of amenorrhea. Postmenopause is the time period following the last menstrual period. The midlife transition to menopause is referred to as perimenopause. This transition usually starts 7 to 10 years prior to menopause with onset being approximately 45 years of age. A major period of physiological change occurs with skipped menstrual cycles and changes in hormone levels. These changes cause physical symptoms such as hot flashes, night sweats, insomnia, nervous tension, irritability osteoporosis and reduced sexual function. The fluctuating estrogen levels accompanied by the perimenopausal transition cause an increased vulnerability to mood disorders. Women that typically have mood disturbances during their menstrual cycle, had prior depression, experience vasomotor symptoms, or have experienced a long perimenopause, are more susceptible to depression during perimenopause.

Recent studies have shown that even with the short-term use of estrogen replacement therapy, using Estradiol as the hormone replacement, mood improved in perimenopausal women. In two separate studies it was determined that the subject’s mood improved after the first week of treatment. In a 12-week study, estradiol was found to be an effective antidepressant during the 12-week period and the subjects also benefited after discontinuing treatment.

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**The Effects of Increased Soda Consumption on the Bone Health of Children and Adolescents**

Jacqueline Boyle, Student  
*Nutrition*

Maximum bone mineral content is achieved during childhood and adolescence. Milk provides nutrients essential for the development of this peak bone mass. The consumption of milk has decreased over the last few years and recent studies suggest that adolescents are not consuming adequate amounts of milk for optimal bone health. Research has also determined that children and adolescents are consuming increasing amounts of carbonated soft drinks. The displacement of milk with soda is putting our children at risk for increased fracture rates and risk of osteoporosis in the future.
Tobacco Use and Female College Students
Holly Brader, Student
Nursing

Although there is a large prevalence of younger adolescents beginning to smoke, the late adolescent group (ages 18-24), which makes up a large portion of the college population, is a group at risk for developing tobacco use habits (Rigotti, Lee & Wechsler, 2000). College is a time for self-discovery. Students are testing new-found independence, developing new friendships, and establishing behaviors that will probably follow them into adulthood (Kear, 2002). The current rate of college students who smoke is approximately 30% according to the National College Health Risk Behavior Survey, 1995. The purpose of this poster presentation is to describe characteristics of the college population that make it so vulnerable to tobacco use, as well as report current research related to tobacco use in the college population. In addition, risk factors for the initiation and continuation of smoking among female college students will be outlined.

Hypothyroid Disease and Related Disorders Affecting Women’s Health
Nancy Branch, Student
Psychology

Hypothyroid Disease is a predominately female endocrine disorder characterized as failure of the thyroid gland to secrete a sufficient quantity of thyroid hormones. This disease is estimated to be present in 5% to 17% of the adult population. The Colorado Thyroid Disease Prevention Study (2000) extrapolates as many as 13 million people have undetected thyroid gland failure nationwide. Systemic symptoms often develop insidiously, present differently for each patient, and are frequently confused with other health conditions making an accurate diagnosis difficult. The literature demonstrates discrepancies in the clinical definitions, diagnostic process, treatment methods and related health concerns. Hypothyroidism puts women at a higher risk for neuropsychiatric disorders such as depression, mood disorders, cognitive changes and eating disorders. Increased serum cholesterol, low-density lipoproteins (LDL), and hypertension are only a few of the risk factors for cardiovascular disease that frequently develop from this thyroid condition. Pregnancy and fetal development are seriously jeopardized when hypo-thyroidism is inadequately treated or misdiagnosed. Risk for bone fractures may be elevated. Improper diagnosis and treatment of Hypothyroid Disease puts women at risk for a wide spectrum of potentially debilitating and life threatening disorders. Public awareness of this disease, its symptoms, and related health issues will assist women to obtain appropriate screening, diagnosis, and expeditious treatment.
Marine Protected Areas (MPAs) have become an important method for protecting and replenishing marine biodiversity. MPAs are specific, geographical areas where harvesting of marine species and disruption of habitat is prohibited. MPAs are also assumed to replenish the surrounding fished areas through the (1) migration of adults/juveniles ("spillover effect") and (2) dispersal of larvae ("dispersal effect"). While the use of MPAs to protect and replenish marine fisheries is increasing, the "spillover" and "dispersal" assumptions of MPAs have rarely been tested, especially for invertebrates. One method to test the dispersal effect assumption is to tag larvae from inside the reserve. Areas outside the reserve are then sampled to determine if any of the tagged organisms have dispersed outside of the MPA. The purpose of this project is to develop a method to tag queen conch larvae using the fluorescent dyes Calcein, Alizarin Complexon and OTC. This method will then be used in a field study to determine the dispersal pattern of the queen conch larvae from a MPA in the Turks & Caicos Islands. Queen conch are an integral component of not only the economies but also the cultures of the Caribbean. Therefore, protecting this species is not only important from a biodiversity standpoint, but from a cultural one as well.
A Biopsychosocial Approach to the Treatment of Fibromyalgia Pain Syndrome

Jessica Hopper, Student
Psychology/Social Sciences

Fibromyalgia Pain Syndrome (FMS) is a chronic condition characterized by widespread pain and a host of other physical and cognitive and emotional symptoms that can be both debilitating and life-altering. Also, those diagnosed with this condition tend to also suffer from chronic sleep disorders and often wake up feeling tired and even fatigued as if they did not sleep at all. In this presentation, we shall explore some of the general symptoms that are experienced with this condition. Additionally, the presentation emphasizes the recent interdisciplinary treatments that have shown some promise in treating and managing symptoms of FMS. Some of the current treatments of this difficult and enigmatic condition include, pharmacological and psychopharmacological treatments, physical therapy with focus on soft-tissue rehabilitation, cognitive restructuring, biofeedback and relaxation training. Additionally, hydrotherapy, balneotherapy and proper diet have helped FMS sufferers to better manage their symptoms. A number of studies have also suggested that an important facet of treatment that is often missing in treating people with this and other chronic conditions is to provide them with effective social support. Unfortunately, most chronic pain patients often feel isolated and, at times, unable to express themselves to others because of the nature of their struggles which may not be readily observable in their appearance. In conclusion, the current literature clearly suggests that a biopsychosocial approach to the treatment of FMS is a prudent approach and is likely to make significant differences in symptom reduction and better overall management of this syndrome.

Metabolic Occurrences Behind Increasing Incidence of Type II Diabetes and Obesity in Childhood

John Fairchild, Student
Nutrition

The prevalence of adult onset Type II diabetes is increasing dramatically in the United States and throughout the world. Diabetes represents a serious health risk to millions of Americans. In the United States, the number of overweight children and adolescents has nearly tripled in the last twenty to thirty years. Overweight and obesity in childhood is a key indicator for overweight or obesity in adulthood. Many diseases in the adult population are increased in individuals who were overweight during their childhood years. The adult overweight and obesity population now exceeds 60 percent. Overweight individuals experience an increase in mortality from cardiovascular diseases (stroke, coronary heart disease (CHD), congestive heart failure, cardiomyopathy, and arrhythmia). There is a distinct correlation between adult onset diabetes and being overweight during childhood and adolescence.
**The Effects of Somatic and Cognitive Relaxation on Stress and Anxiety of College Students**

Micah Sadigh, Ph.D.  
*Psychology*

In the college population, stress may often interfere with learning, cognitive activity, interpersonal relationships and may have deleterious effects on students’ health and well-being. Several studies have concluded that exposure to unpredictable and uncontrollable stress is followed by a sense of helplessness and the concomitant derailment of the immune system. In recent years, relaxation techniques have been widely used to manage stress and its harmful effects. The purpose of this study was to compare the effectiveness of a combined somatic-cognitive approach to relaxation training and a delayed control group on changes in levels of state anxiety, trait anxiety, and stress of college students. Twenty undergraduate students participated in the study. They were then randomly assigned to either the treatment group or the delayed treatment control group. Students in the treatment group met for four consecutive, one-hour sessions during a four-week period. The results of the study revealed that students in the treatment group experienced significantly less levels of stress and trait anxiety as compared to the control group (p <.05). Changes in state anxiety also favored the treatment group but were not statistically significant (p=.057). The results of the investigation suggested that an intensive, combined relaxation strategy can be helpful to college students in managing their stress and anxiety. Future studies may consider including physiological measures and academic indicators as a way of further exploring the mechanism of stress within this population.

**Approaches to Understanding Cardiovascular Disease**

Tracy Brennan, Amanda Carl, Kimberly Frustillo, Melissa Geyer, Daneen Grossman, Anjali Raval, Jennifer Richards, Elaine Steinke, Dawn Thurston, Lynn Wilson, Students  
*K. Joy Karnas, Ph.D.*  
*Biological Sciences*

In the United States, cardiovascular disease continues to plague us as the leading cause of death. Blood cholesterol levels have been used as an indicator of a person’s risk for heart disease, leading to the development of several drugs designed to lower cholesterol levels. But how does this cholesterol get into the bloodstream? As it turns out, its transport is accomplished by lipoprotein particles. Lipoproteins have been found in many vertebrate and insect species, and their basic structure and function appear to be conserved. This implies a similar pathway for their production. The details on how the lipoproteins are made remain unclear. Using the basic lipoprotein gene sequence from the tobacco hornworm, we are using two different model cell systems and a combination of several molecular techniques to investigate this process. Here, we discuss why insects serve as perfect model systems for research on human processes, while demonstrating how different approaches can be used to investigate a single research question.
Blindness caused by retinal degeneration is a health problem affecting millions of Americans. One possible therapy for this disease lies in the use of stem cells to replace existing damaged cells. Because the human retina is difficult to study directly, we are using model systems as a first step in understanding how stem cells might function within the human retina. Fish and other “cold-blooded” animals have retinas that grow throughout their lives by using stem cells to make new adult cells. We are using these fish to ask questions about what molecules control the process of making new retinal cells. Because the fish retina is remarkably similar to the human retina, what we learn from fish is applicable to humans, and may someday contribute to treating human eye diseases.

A second use of fish models has been in the study of human behavior. Many fish species have complex social behavior that can be studied in the laboratory. We are currently characterizing the behavior of two novel fish species. Once their normal behavior is understood, we will experimentally manipulate their environment and observe behavioral changes. For example, experiences of stress may cause predictable shifts in behavior. Physiological differences corresponding to behavioral differences have been described in some species; we will extend our work to examine physical changes in these fish. Both behavioral and physiological responses to stress will provide useful models of human responses to stress.

The Use of Diet in Treating Symptoms of Polycystic Ovarian Syndrome

Angela Kiechel, Student

Nutrition

Polycystic ovarian syndrome is a condition that affects approximately 3.5-5 million women of childbearing age in the United States. It is one of the most common causes of infertility and is accompanied by insulin resistance and hyperinsulinemia. Due to these conditions, and the fact that many of these women are overweight, specific treatment regimens are difficult to prescribe. Oral contraceptives and insulin-sensitizing drugs have been used to treat certain aspects of the syndrome. Recently, diet has been investigated to determine its usefulness in treating polycystic ovarian syndrome. The most promising results show that a calorie restricted diet may be beneficial in reducing abdominal fat, hyperinsulinemia, and improving insulin sensitivity.
An Exercise Protocol for Multiple Sclerosis Patients and the Effect it has on the Quality of Life

Diane Moyer, Ph.D.,
Alex Rae-Grant, M.D., F.R.C.P.
Nancy Eckert '90, R.N.
Gail Goldberg '97, B.A.
John Graham, B.S., C.S.C.S.

Multiple Sclerosis is a disease of the central nervous system that interferes with the brain’s ability to send and receive messages by breaking down the myelin around nerve fibers. Previous research has shown that exercise has a positive impact on the quality of life in MS patients. Forty-four subjects were enrolled in a three-month exercise protocol to determine its effects on psychological and cognitive functioning and 35 (28 in the exercise group and 7 in the non-exercise group) had analyzable data. Subjects completed assessments before and after the exercise program. Paired t-tests were used to analyze depression, anxiety, locus of control (LOC), and cognitive functioning before and after exercising. Results revealed a significant difference between the exercise and non-exercise groups for depression, LOC, and trait anxiety. Participants reported significantly lower levels of depression, a shift towards an internal oriented locus of control, and lower levels of trait anxiety than did the non-exercise group after the three-month exercise protocol. Additionally, results indicated a significant difference for digit span. The exercise group scored higher in the digit span than the non-exercise group. There was no significant difference for state anxiety or the digit symbol test. Implications for practice and future research are suggested.

Religion, Spirituality and Prayer in Health and Healing: A Brief Review of the Scientific Literature

Erin Nedderman, Student
Neuroscience/Psychology

Religion and spirituality are among the oldest forms of medical treatment. However, at one point a split developed between religion and medicine, and consequently, little attention was paid to spiritual healing in scientific research. In recent years, there has been a growing interest in alternative forms of healing, and medical research is producing an ever-growing body of literature on this subject with improved methodological designs and assessment tools. In fact, during the past two decades, over 350 studies that focus on spirituality and spiritual coping have appeared in medical and professional journals. This presentation examines results from some of these studies, both from review articles and primary papers. The methods used by different studies, and the potential effects of study design on the results, will also be examined. Additionally, many studies have attempted to postulate mechanisms of action of religious healing methods and these will also be discussed. The positive results gained from the application of religious or spiritual forms of healing in patients with a variety of ailments demonstrate the importance of continued research on connections between spirituality and health. There is now enough data that suggests that this is an important area of inquiry in healthcare and medicine, which requires further attention and rigorous exploration.

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Viruses, Genes, Toxins and Diseases

Andrea Beyer, Kim Bieniek,
Leanne Follweiler, Sarah Libertoski,
Megan Miller, Morgan Schrock,
Johanna Schwingel, Students
Alan Hale, Ph.D.

Biological Sciences

Many people have heard of tetanus, cholera, botulism, and diphtheria. What most individuals do not understand is that these diseases are caused by an interesting inter-action between infectious agents (bacteria) and the viruses [bacteriophages] that infect the bacteria. In most cases, without the virus, the bacteria that cause these diseases are relatively harmless. However, when the viral DNA is incorporated into the bacterial genome following infection, viral genes are turned on and produce toxic substances, including the deadliest poison known to mankind, the botulinum toxin (Botox). These toxins are what cause a diversity of diseases in humans. We are studying bacterial/viral interactions and also the incorporation of viral DNA into bacterial genomes to better understand the process and to ultimately understand how it can be prevented. We do not work with highly pathogenic species such as Clostridium tetani, Vibrio cholerae, Clostridium botulinum and Corynebacterium diphtheriae. Instead, we use Janthino-bacterium lividum as a model bacterial system that exhibits similar host/virus interactions but without the expression of toxic genes. We have isolated viruses [phages] and their bacterial hosts from many locations throughout the United States. The vast majority of the bacterial hosts carry phage genes, which suggests the presence of either prophage or phage remnants. A prophage is a complete virus with the ability to excise itself from its host’s genome to produce new viruses.

A phage remnant is either an incapacitated phage or a fragment of a phage genome. In either case, the expression of viral genes within bacterial hosts can be extremely pathogenic.

The Prevalence of Elder Abuse

Tracy Greco, Aura Nicholson
Miranda Weary, Students

Social Sciences

As technology advances people are living longer, and the population of elders is growing. History has shown elders over one hundred years ago constituted only about two percent of the population. Today this number has increased dramatically. The fact that elders are living longer, and form a larger section of the population makes them more susceptible to possible abuse and neglect from their caregivers. This study will assess the prevalence of elder abuse as well as measure practitioner’s ability to recognize abuse. Several research studies conducted on elder abuse have identified five main types of abuse against the elderly: physical, psychological, financial ex-ploitation, neglect and maltreatment, and sexual abuse. This study using a one time only post test descriptive survey design will focus on the prevalence of elder abuse and the practitioners ability to recognize elder abuse. The sample being studied is a non-probability sample including 100 social workers in the Cumberland and Lehigh Counties who work with the elderly population in settings including long term care, offices of the aging, and assisted living.
Sleep Deprivation and Its Health Consequences: A Psychophysiological Perspective

Danielle Lion, Student

Psychology

This presentation explores the psychophysiology of sleep and the relationship between proper sleep and healthy living. Lack of sleep is a common complaint in our non-stop culture. Our hectic society makes demands twenty-four hours a day, which makes it seemingly impossible to squeeze in a full eight hours of the recommended resting period needed. Often, lack of sleep is viewed as a trophy attributed to one’s workaholic tendencies, a triumph over our body’s natural urge to relax and repair. Even mild sleep deprivation is the cause of irritability, decreased performance, lack of motivation, and appetite irregularities. These outward qualities in conjunction with daytime sleepiness have an enormous effect on our economy, as many avoidable accidents attributed to sleep debt have cost America billions of dollars. But aside from the economic effects, sleep deficiency has a profound effect on health, wellness and longevity. Research suggests that lack of sleep can be accredited to abnormal functioning of the immune system, changes in metabolic activity, memory deficits, hormonal changes, premature aging, fibromyalgia and chronic fatigue syndrome, and a variety of other conditions. The only remedy to this epidemic is increased knowledge and awareness of the mechanisms of sleep, its restorative qualities, and the dangers of sleep deprivation.

Female Students’ Perceptions of Casual Sex: Influence of Method of Contraception and Alcohol Consumption

James Scepansky, Ph.D.

Psychology

In 1988, Hynie and Lydon offered evidence of a double standard with regards to women’s perceptions of females’ sexual behavior based on their choice of contraception. Specifically, women who were believed to have provided a condom in a sexual encounter were evaluated more negatively than women who engaged in intercourse when a male partner provided a condom. A female’s provision of a condom was suggested to indicate sexual preparedness (i.e., promiscuity), which traditionally has been considered a negative trait in women, more so than in men. Society has changed sufficiently to question whether a female providing a condom, a very proactive and responsible behavior, continues to elicit a negative evaluation. Results suggest a possible decline in the double standard. As predicted, male and female participants evaluated a fictional female character more favorably when birth control was used, especially when that female had control over its use. However, male participants seemed to be more approving of the female’s actions in general, possibly indicating a preference for a female who is promiscuous. The fact that male participants seemed to prefer a female when she had been drinking is disturbing in this generation, where we constantly worry about college student consumption of alcohol and its most serious ramifications, namely, date rape, pregnancy, AIDS and other STDs.
Obesity: A Biopsychosocial Perspective
Lucia Smith, Student
Psychology

This presentation provides a concise exploration of obesity from a biopsychosocial perspective. Obesity has become an increasing health issue for Americans in recent years, and it affects a person’s physical as well as psychosocial well-being and functioning. Obesity affects an estimated 60 million people in the United States. Not only is it a dangerous condition in itself, it can also increase the risk for developing several other health problems. These include Type II diabetes, heart disease, stroke, hypertension, gallbladder disease, osteoarthritis, sleep apnea, and even cancer. Other factors that may act as serious health threats are the degree of obesity, weight cycling, and accumulation of fat in the abdominal area. To assess whether a person has serious weight issues, physicians rely on many methods such as computer tomography, magnetic resonance imaging, ultrasound, the skinfold technique, charts, body mass index (BMI), and waist circumference. Currently, scientists are exploring why some people develop obesity issue and what can be done about it. Two models that address factors contributing to obesity are: The Setpoint Model and the Positive Incentive Model. The Setpoint Model explains that each person has a setpoint level of fat, which is maintained by both physiological and psychological mechanisms. The Positive Incentive Model on the other hand holds factors such as social setting, cultural background, personal pleasure and biological factors responsible for the encouragement to eat. The contributions and limitations of these models will be explored.

What Are the Genetic Links to Eating Disorders?
Shannon Wiegand, Student
Nutrition

Eating disorders have become increasingly prevalent in the United States and their prevalence has spread throughout the world. The mortality rate of anorexia is approximately ten percent. Statistically there is a greater chance of someone developing an eating disorder if some in his or her immediate family suffers from an eating disorder or a mental disease such as depression or obsessive-compulsive disorder. Research has been done in many areas of genetics in order to locate the exact genes involved in food regulation, satiety and body image. There are positive and promising results as to why patients develop eating disorders in this review, as well as other areas that need to be further examined.
Faculty Research Project on Religious Diversity in the United States:
The Hindu Temple, Vraj, in Summit Station, Pennsylvania

Miranda Carman, Gurpreet Kaur, Students
Catherine Cameron, Ph.D.,
E. Allen Richardson, Ph.D.
Social Sciences

We (Catherine Cameron and Allen Richardson) have been engaged in a longitudinal study of a transplanted Hindu temple. The focus of our work is a particular Hindu bhakti or devotional sect called the Vallabha Sampradaya, which claims millions of devotees both in India and North America. We have been studying the development of the sect’s only authorized pilgrimage center in the western hemisphere (called Vraj), located in Summit Station, Pennsylvania. Our general research problems include the study of the process through which sacred space is manufactured in diaspora and the role of power and authority in this satellite location. The focus of the research also includes a comparison of patterns of worship in Nathdwara, India (the seat of the sect) with the new American location, mechanisms for the global transmission of authority and patterns of adaptation to a rural Pennsylvania environment.

With text and pictures, the poster outlines the research problems, methodology, and some of the initial findings fo the research. We explain the connection between our work and the larger objectives of the Pluralism Project of Harvard University, which involves the mapping of the growing religious diversity in America and discovering the ways that people can begin to engage in what Diana Eck calls “engaged pluralism,” in other words, serious dialogue and understanding among peoples from very different backgrounds.

A Comprehensive Look at the Loss of a Twin

Laurel Sywensky, Student
Psychology

Death is a reality of life that no one person can escape, and the death of a loved one causes many disruptions in his or her life. However, there are those individuals that experience a unique type of grief and loss that is experienced by non-twin siblings. Twins who have lost their co-twin experience a unique type of bereavement that affects their identity, mental health, anger, grief recovery, psychosocial development, and sense of guilt. First, this literature review examines the unique closeness of twins and their relationship. The review also examines the unusual circumstances of bereavement and loss associated with twins, as it pertains to the surviving conjoined twin, infant twin, twin lost during uterine incubation, or the fictitious twin. Also, this review examines the reaction to the suicide of a monozygotic or dizygotic adult twin.
Youth and Young Adult Perceptions’ of Drinking and Driving Prevention Programs

Stacy Pletz-Teresavage, Student
Psychology

Few drinking and driving prevention programs prepare youth and young adolescents on several affects of alcohol while driving a vehicle. They also fail to educate individuals, students in particular with the most recent death and crucial consequences of alcohol related accidents. A particular prevention program and nationwide organization called, ”Every 15 Minutes” allows educators in the community to be involved in a school program. The program provides high school students an opportunity to witness a stage alcohol-related traffic collision. The drinking and driving prevention program effects the young adolescents physically and emotionally on changing their options about the next time they get in a vehicle while someone was drinking alcohol. Each drinking and driving vehicle collision has strong consequences that will not only affect the driver but also the victims of individuals that are loss by automobile collisions. Every 15 minutes will offer students real life experience with out the real life risks. The parents, students and community will benefit from the effectiveness of the program. Many of the programs do not focus on the behavioral changes in adolescents after viewing a drinking and driving prevention program. Future research would follow up on the behavioral changes in adolescents that viewed this program and have made the right decision on not allowing one to drink and drive.

Assimilation of Asian Indian Adolescents and Their Psychological Health

Gurpreet Kaur, Student
Psychology

The objective of this paper was to understand the assimilation of Asian Indian adolescents into the American culture. The issues with parents’ assimilation into the American culture and how it affects the assimilation of Asian Indian adolescents will be addressed. In addition, Asian Indian adolescents’ education patterns and the importance of education to Asian Indian adolescents and their parents are reviewed, as well as the issues of marriage, dating, identity and family conflicts. Asian Indian adolescents face many psychological problems and acculturation stress as they assimilate into the American culture and maintain their parents’ expectations. Ideas for future research studies are presented.
Cytoplasmic Microtubule Organization: Implications for Cell Growth and Division

Heidi Nick, Student
Cristen Rosch, Ph.D
Biological Sciences

Microtubules are components of the cellular cytoskeleton and play many roles in cellular processes. The research presented in this work centers on designing a visual screening method to determine the organization of cytoplasmic microtubules in Chlamydomonas reinhardtii flagellar mutants. The ultimate goal of this project is to identify the genes that encode microtubule associated proteins (MAPs) necessary for microtubule organization in the cytoplasm of interphase cells.

The specific goals of this project include determining the organization of cytoplasmic microtubules in long and short flagellar mutants using fluorescence microscopy; determining the effect of a protein synthesis inhibiting drug on the organization of cytoplasmic microtubules in long and short flagellar mutants; and determining the flagellar regeneration abilities of long and short flagellar mutants. Once a visual screen is developed to observe the organization of cytoplasmic microtubules in Chlamydomonas flagellar mutants, mutant strains will be created through insertional mutagenesis as a way of identifying the genes that encode the MAPs which function in cytoplasmic microtubule organization.

These types of studies may provide additional insight into the role of cytoplasmic microtubules in cell division and thus can be applied to understanding unregulated cell growth and division in cancer.

Effects of the Health Insurance Portability and Accountability Act

Michelle Stransky, Student
Social Sciences

The Health Insurance Portability and Accountability Act was passed in an effort to protect patients’ confidential medical information. Because of its implementation on April 15, 2003, studies of confidentiality in the medical, social work, and psychology communities are the closest references for the study of confidentiality. Studies have shown that, regarding medical confidentiality, there are positive and negative attitudes from practitioners and patients. This research intends to explore the effects of this act in medical facility practice across all implementation areas, including nursing, administration, and medical records. The research design is a descriptive survey that includes 100 individuals from physician offices who deal with issues concerning medical confidentiality and HIPAA. Participants will complete a self-designed survey intended to assess the relationship between patient confidentiality and their attitudes and actions in accordance with this act.
Level of Training of Social Workers Who Work with Gay and Lesbian Clients

Sherri Kessler, Nara Pezolano, Students
Social Sciences

There has been very little research done in regard to the competencies of social workers that deal with issues specific to the homosexual society. For the most part, the professional literature has addressed the gay and lesbian community in relationship to HIV/AIDS issues. Little research has addressed the competency needs of social workers that work with gay and lesbian clients.

This leads to a few questions one might want to ask… are social workers educated properly to work with clients that are homosexual? Are there enough college courses and specialized training programs or continuing education conferences that can make our social workers not only social workers, but effective social workers? Do social workers understand cultural differences among the homosexual community and heterosexual communities? To what degree does homophobia and heterosexism influence the effectiveness of a social workers performance? Several studies have shown that workshops, training videos, and classes may be an effective way to provide the practitioner with education needed to work with diverse client populations such as the gay/lesbian community.

The data for this research will be collected using a one-time post descriptive survey design. The survey that will be used is adapted from Index of Attitudes Toward Gay and Lesbian Clients (Nuris & Hudson, 1993). The sample is 100 social workers, caseworkers, and mental health workers in the Lehigh Valley as well as the Pocono Mountain region.

Hepatic and Systemic Effects of High Fructose Consumption

Laura Meldrum, Student
Nutrition

Fructose consumption is increasing, primarily due to its role as a sweetener in food products. Controversy surrounds the issue regarding health implications due to this increasing consumption. Numerous studies involving animals have demonstrated the ability of high fructose consumption to induce hypertriacylglycerolemia, insulin resistance, pro-oxidation, and fructation. Human studies, which have been small and infrequent, have not been as conclusive. Considering the increase of metabolic disease along with the suggestion of potential health detriments due to excessive fructose consumption, it is imperative that research continues in this area.
Neuropharmacology of the Medicinal Plant Kava

Kent Fitzgerald, Ph.D.
Biological Sciences

Kava (Piper methysticum), a plant native to the South Pacific, is a traditional ritual and social beverage and relaxant, and has been used medicinally to reduce anxiety and prevent epileptic seizures. The therapeutic efficacy of kava has been examined in a number of animal and human studies, but remains controversial. Recently, concerns have been raised regarding the safety of kava and its potential to cause liver toxicity. In light of these data, the medicinal use of kava should be re-evaluated.

The cellular mechanisms of action of kava have been experimentally investigated in several systems. Evidence from this work suggests that kava alters both neural excitability and synaptic transmission. Like many other antiepileptic drugs, kava reduces sodium and calcium currents through cell membranes. Similar to sedative medications, kava also increases transmission at inhibitory synapses. Recently, we have shown in our lab that kava paradoxically increases calcium levels in nerve cells.

Spirituality in Long-Term Care Facilities

Heather Wirth, Student
Social Sciences

Spirituality is believed to be a part of every individual, thus to fully understand an individual we must be able to understand spirituality. Keeping this in mind, social work, being a holistic focus of person-in-environment, is a profession that needs to understand the meaning of spirituality. Several studies have demonstrated that social work students and faculty of social work programs feel that there is a low amount of spirituality content in the current social work curriculums. There have also been a number of studies conducted that assess the spirituality of social work practitioners as compared to that of the general public, and if this can have an affect on the social worker’s ability to competently address spirituality with his/her client. This study being conducted is designed to assess the competency of social workers when addressing the spirituality of long-term care patients residing in nursing home facilities. The method being used is a post-test descriptive survey design. The survey is a self-constructed questionnaire, based on the available literature. The survey sample consists of social workers from nursing homes in the Lehigh Valley, located in Northeastern Pennsylvania.
Surgical procedures for weight loss are currently the only viable options that exist for long term, sustained weight loss for the obese population in America. Dietary and behavioral treatments have been unsuccessful despite the $30 billion per year spent on weight management. Dramatic weight loss can be achieved through gastric bypass procedures with preoperative nutrition education and postoperative nutrition follow up. Bariatric surgeries are intentional restructuring of the Gastro-intestinal (GI) Tract to create malabsorption. The operation purposely excludes part of the alimentary canal which may potentially lead to metabolic deficiency in the absence of certain vitamins and minerals. Malnutrition may be a potential complication due to patient’s noncompliance to their dietary supplements or guidelines. These complications may lead to disease and life shortening, chronic, conditions. Surgical weight loss is not an easy alternative to exercise and diet avoidance by any means. Lifetime behavior modification and supplementation is essential to a lifetime of optimal health and sustained weight loss after surgery.

This paper discusses college students and their performance based on the stress they experience on a daily basis. Too much or too little stress can hurt, but with the right amount one can achieve success. Whether this stress is brought on from a job, a class, an argument with a friend or roommate, or just the daily routine of things, it’s added pressure one feels in an already stressful situation that is known as college life. For many students college is the first time they have been away from home and on their own, giving them a sense of freedom. With this newly found freedom comes the responsibilities of an adult. These responsibilities added to the mix of stresses one is already under due to academic and college life can put a real strain on a student’s performance. Students feel the need to fit in and strive toward success. Getting an “A” in class is simply not reward enough. They feel the need to take success to the next level and strive towards the unattainable goal of perfection.
POSTER SESSION 1:
10:00 A.M. - 12:00 P.M. TOMPKINS COLLEGE CENTER

Community Integration and Its Effects on Quality of Life

Denise Romanksy, Student
Social Sciences

The purpose of this research is to examine the effects that community integration of individuals with developmental disabilities has on their quality of life. The primary assumption of the de-hospitalization movement was that there is a positive effect between the two. Previous research has shown that in most cases there is a positive effect on quality of life, largely dependent on the individual’s support systems. The consistency of programs, availability of supportive family or peers, use of drugs, and accuracy of the individual reporting on quality of life are important factors to consider when examining any potential relationship. This study will utilize a one time post-test survey design, interviewing staff who work in an agency in north east Pennsylvania that provides services to adults with mental disabilities. The research will examine both the level of community integration the individual is involved with, their quality of life as perceived by staff, and staff demographics. This survey was developed using some of the items from the Quality of Life Index, developed by Schalock, et al.

Omega-3 Fatty Acids and Cardiovascular Disease: Benefits and Proposed Mechanisms of Action

Kimberly Kunsman, Student
Nutrition

Cardiovascular disease (CVD) remains the number one killer of Americans, with current data indicating 700,142 deaths in 2001. Potential methods of treatment and prevention are of paramount importance. A vast body of evidence supports a likely casual relationship between omega-3 fatty acid intake and reduction in CVD risk. Several mechanisms of action are proposed, with the predominant effect of fish oils believed to be due to antiarrhythmic effects. This article reviews the mounting evidence of benefits of omega-3 fatty acid intake in treatment and prevention of CVD and its identified risk factors, as well as currently proposed mechanisms of action.
POSTER SESSION 1:  
10:00 A.M. - 12:00 P.M. TOMPKINS COLLEGE CENTER

Art Therapy Internship

Asami Hotta, Student  
Art

My poster presentation will be illustrating my internship experience at Mercy Special Learning Center, which is an organization that provides a school setting where children with mental disability problems go to learn what average children learn in standard elementary schools or junior high schools with their own pace with professional staff. There is one day a month that mercy Special Learning Center coordinates an Art Therapy project and I assist the Art program as an Art Therapist assistant. All the students participate in this project, and they create and complete one art project a month. This presentation will describe how the students react to the art program and their success, and what I experienced with the students by working with them on the art projects together.

Child Abuse and Child Welfare Workers

Ellen Werley, Student  
Social Sciences

The purpose of this study is to determine how child abuse in one’s past or related past influences the decision to become a child welfare worker. Several studies have demonstrated that social workers abused as children often become child welfare workers. The literature also regarding trauma and the influence it has on career choice shows that trauma is a leading cause in the career choice to become a child welfare worker. This study is designed to grasp a better understanding of why social workers make the choice to become child welfare workers. The study will utilize a descriptive survey research design that will survey child welfare workers employed in children and youth agencies located in North Eastern Pennsylvania.

Age Differences in Perception of Death

Miwako Nagato, Student  
Psychology

Previous studies have indicated that differences in perception of death exist for both gender and ages. The current study examined age differences in perception of death. Participants consisted of two female age groups: traditional undergraduate students (n = 32) and nontraditional undergraduate students (n =3 2). Participants completed the Multidimensional Fear of Death Scale (MFODS) and a demographic questionnaire. A significant difference was found on two MFODS subscales. Older students had more fear of what would happen to their bodies after death and how they would die than did younger students. Increased knowledge about the perceptions of death will enhance the treatment of those facing death.
Alcohol Consumption and Its Effect on Occurrence of Strokes

Jennifer Turoscy, Student
Nutrition

Epidemiologic evidence suggests that alcohol consumption has distinctive associations with the risk of ischemic and hemorrhagic stroke. There is substantial evidence that moderate consumption of alcohol does not increase the risk of ischemic stroke, but studies still remain divided on alcohol’s protective association with stroke. A structured search was performed for literature using several electronic databases. Several cohort and case-controlled studies were used to compile this data on the relationship between stroke and alcohol consumption. An association between recent alcohol use and stroke was found. Inconsistent results were found in regards to moderate alcohol consumption and a positive protective effect against stroke. It was reported that recent binge drinking and a feeling of being intoxicated has increased stroke incidence. There is insufficient evidence to conclude that light to moderate alcohol intake has beneficial effects on stroke occurrence. Findings from the literature review also show stroke prevention if heavy drinking and binge drinking are stopped.

Making Informed Decisions: Prophylactic Vitamin K and Your Newborn

Jessica Genewski, Student
Nursing

Research has shown that greater than 20% of today’s medical practice is not based on evidence. Medical and nursing professionals are striving to combine research findings with medical practice in order to provide effective evidence based care. Prophylactic intramuscular injection of Vitamin K for all newborns at birth is a practice that was incorporated approximately 50 years ago. The purpose of this practice is to prevent early and late vitamin K deficiency bleeding (VKDB), also known as hemorrhagic disease of the newborn (HDN). With the advent of evidence-based practice, this procedure has come under new scrutiny. Studies have shown a possible link between intramuscular administration of Vitamin K and childhood cancer. As a result, the validity of these studies, implications for practice, and alternative methods of Vitamin K administration have been sources of controversy. Vitamin K injections are ordered by physicians, but administered by nurses. It is a nursing responsibility to know whether a practice is harmful to patients, and if so, to inform patients and advocate change. The purpose of this project is to perform a literature search and synthesis of research in order to examine the efficacy of this practice, propose a research design to examine this topic, and empower others to make an informed decision about the care of their newborn.
The Postpartum Depression Screening Scale: Implications for Nursing Practice

Gabrielle Dyszel, Debbie Jenkins, Jennifer Jones-Lapp, Vanessa Pasch, Students Nursing

The purpose of this poster presentation is to provide a synthesis of the literature related to the Postpartum Depression Screening Scale developed by Beck and Gable (2000, 2001a, 2001b). Postpartum depression has devastating effects on the mother and her family, and currently many of these cases go undiagnosed and untreated. The current model of postpartum care fails to incorporate an effective screening tool for postpartum depression, and implementing an effective postpartum depression screening tool into clinical practice is necessary to promote early recognition and treatment of this debilitating mood disorder. Women interact with nurses in gynecologic, obstetric, neonatal, or pediatric specialties, and this provides an enormous opportunity for professional nurses to be leaders in patient advocacy by calling for a change in the standard of practice for postpartum care. Primary prevention of postpartum depression is equally important and providing community education to increase awareness about the risk factors and symptoms of depression after childbirth may help to lessen the experience of postpartum depression and prevent the devastating effects of this debilitating mood disorder by empowering women and their families to seek early diagnosis and treatment (Deaves, 2001; Heh & Fu, 2003; Ugarriza, 2002; Webster, 2002).

A Look at the Different Treatments for Attention Deficit Disorder

Danielle Schlosser, Student Psychology

The first line of treatment for Attention Deficit Hyperactivity disorder (ADHD) seems to be the use of medication. More and more children are being prescribed medication and at younger ages, but is medication always the right answer? This review first explores other forms of treatments for children with ADHD. Among the treatments that are looked into are behavioral treatments, in school interventions, parent training, cognitive therapy and alternative treatments through diet and exercise. Then this review looks at the long-term effects and outcomes of these different treatments for children with ADHD.
POSTER SESSION 1:
10:00 A.M. - 12:00 P.M. TOMPKINS COLLEGE CENTER

The Effects of Prenatal Stress on Mothers and their Fetuses
Shereen Mansour, Student
Psychology

Pre-term labor has been an issue for many women in the United States. Premature infants weighing between 1500 and 2499 grams at birth are five times more likely to die in the first year of life than normal weight (2500+gram) infants. Those infants weighing less than 1500 grams are 65 times more likely to die according to the National Center for Health Statistics. The surviving number of premature children have higher rates of subnormal growth and illness (Newnham, 1998). Prenatal maternal stress has been long thought of as a contributor to pre-term labor. Mudler et al. (2002) stated “apart from well-known biomedical risks, maternal psychological factors may significantly contribute to pregnancy complications and unfavorable development of the (unborn) child.” This literature review examines studies that have been done concerning the relationship between prenatal maternal stress and its effects on mothers and their fetus.

Stress and Satisfaction of AIDS Staff
Sari Rosen, Student
Social Sciences

With modern technology, AIDS has gone from a terminal disease to one that is now manageable. Because of this shift, other factors have developed such as the stress and satisfaction of one’s job as a caregiver of AIDS patients. Several studies have demonstrated that stress and one’s job satisfaction has many predictors such as age, gender, years experience and educational level, but there is not a consensus of what actually causes stress and one’s job satisfaction. The data for this study will be collected using a one time, post test descriptive survey design. The population being studied is all staff members from agencies in the Lehigh Valley area working with persons with AIDS (PWA).

Role of Fish Oil Supplements in the Treatment of Hemodialysis Patients
Kellie Marckstein, Student
Nutrition

Celiac Disease (CD) is an immune-mediated enteropathy triggered by gluten and is on the rise in America and Europe. CD can be controlled by a gluten-free diet although quality of life issues in maintaining this diet can be life altering. Malnutrition and nutrition related chronic disorders have been associated with CD. Immunological and genetic factors are also associated with this disease process. Epidemiology, diagnosis, screening and treatment of CD is discussed.
Using Art Therapy as a Treatment for Children Affected by War Trauma

Andrea Grunberg, Student
Psychology

War has often been explained as being a necessary evil. While it may be argued that war is, in fact, a necessity at times, there has rarely been any measures taken to deal with the trauma felt by those affected by war. Children are often thought to be unaffected by war because they are too young, or because they do not understand. In fact, the opposite has been found, children are deeply affected by war and war trauma. It is imperative that they are given the outlet to express their feelings in relation to the war trauma. However, it is often difficult for children to express themselves effectively. This may be due to their age, developmental level, undeveloped verbal skills, inability to be introspective, and misunderstanding of events. Art Therapy gives therapists an ability to see a child's inner world in their own way, the children are free to express themselves through their own language of art. Many communities have been affected by war and they have begun their healing through art therapy. The United States has felt isolated, however, with Oklahoma City and September 11, war has been brought into our homes. These recent horrific events gives us a chance to see Art Therapy at work, treating our children.

Knowledge of the Code of Ethics: Valid or Phony?

Kristie Daku,
Catherine Morrissey, Students
Social Sciences

Knowledge of the NASW Code of Ethics is necessary to the field of social work. The profession’s core values, ethical principles, and ethical standards, as found in the NASW Code of Ethics, are what bind social workers together and provide an essential measure of protection.

Research into knowledge of the NASW Code of Ethics is essential in order to evaluate how well current social workers know new revisions to the Code, how well they are using the Code, and to determine the level of misconduct occurring in the profession.

Having this knowledge can be an asset to the field not only by limiting the amount of ethical complaints filed with the NASW, but also by improving quality of practice and expanding social workers professional competence.

The overarching research question is: How well do social workers know and abide by the NASW Code of Ethics?

The research design will be a one time, post descriptive survey design. Research will be conducted on a sample of 100 social workers in the Lehigh Valley from a variety of practice settings to assess their knowledge of the NASW Code of Ethics.
Why Women Choose Single Sex Institutions of Higher Learning

Miranda Carman, Sidra Naved, Students
Social Sciences

The topic of college choice has been under much research by many colleges. If colleges can pinpoint why students choose a particular college they can use this information for recruitment and retention of students. Current single sex institutions for women attract students from diverse socioeconomic backgrounds. From the review of the literature it is estimated that economic aid and diversity in ethnic and racial backgrounds are factors in choosing a women’s college. Additionally, another factor contributing to a students choice in college is the influence of others including, legal guardians, grandparents, guidance counselors, peers and others.

This study seeks to understand why women choose single sex institutions of higher learning. The research will be measuring the interactions of social forces and their affect on women going through the college choice process. The research will use a descriptive survey research design modified from Dixon and Martin’s (1991) The College Choice Influences Scale as well as Ranero’s (1999) College Choice Survey. The population under study is all women’s single sex post secondary institutions. The sample is 200 students from a women’s single sex institution in Northeastern Pennsylvania.

Managing Stress

Deborah Smith, Student
Nursing

This poster presentation is going to address the topic of managing stress. It will first describe what stress is and what causes stress. It will include some of the warning signs and symptoms of stress both emotional and physical. It will then describe ways to reduce stress such as exercise, relaxation techniques, proper nutrition, music therapy, deep breathing, and getting the proper amount of sleep. In today’s busy world, everyone can benefit from some form of stress reduction.
POSTER SESSION 1:
10:00 A.M. - 12:00 P.M. TOMPKINS COLLEGE CENTER

Trauma and Its Specific Impact on Career Choice as it Relates to Nurses and Social Workers

Vincia Hunter, Student
Social Sciences

It is believed that the role of childhood experiences plays a big part in career selection of social workers and nurses, with their biological family reflecting a history of dysfunction among its members. This dysfunction can be seen in the abuse of drugs and alcohol, physical, sexual or emotional abuse or any other things such as mental or chronic illness of a family member or other traumatic experiences such as suicide, or the death of a family member. Therefore, the choice of a career leading into social work as well as nursing seemed the direct result of the various traumatic experiences the family may have suffered. Several studies have demonstrated that trauma stays with some individuals from childhood through adulthood. This study using a one time only posttest descriptive survey design will focus on early family history and include an examination of traumatic events as well as demographic factors. The study sample will include all students in a North Eastern Women’s College who choose either a social work or nursing major.

The Effects of Cats on Human Physiological Reactivity to Stress

Megan Kees, Student
Biological Sciences/Psychology

This study will explore whether the interactions between a person and a cat causes lower levels of physiological signs of stress in the person. To accomplish this, human-cat interactions will be observed under several conditions using female subjects from an all women’s college. The first condition is the presence of the animal in the room with the person. This is a no-interaction control measure. The next will involve the person petting the cat and the third will be them listening to the cat purr. Finally, the last measure taken will be with the person petting the cat and listening to it purr. Previous research studies have shown that the presence of a pet lowers stress responses; therefore, the same result is expected to occur in this study. However, this study further explores the interactive components between the person and the pet. It is hypothesized that either petting the cat or listening to it purr will reduce the physiological signs of stress, but that the combination of both will have a greater effect than either alone. Future research could be conducted using different pets as well as varying subject populations (i.e. male v. female, older v. younger, etc.)
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ACKNOWLEDGMENTS

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