



INTERDISCIPLINARY RESEARCH CONFERENCE

A CELEBRATION OF SCHOLARSHIP

2012-2013

MARCH 19-20, 2013

PALM BEACH ATLANTIC UNIVERSITY

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2012-2013 Interdisciplinary Research Conference

A Celebration of Scholarship

The Interdisciplinary Research Conference was developed to recognize the scholarship of students and faculty in all disciplines. It provides our undergraduate and graduate students and faculty with the opportunity to present their scholarly work to the campus community. Here, “research” in this context is interpreted as any scholarly or creative activity ranging from scientific experimentation to artistic expressions, service-learning, literary criticism, or case-study designs.

As such, students and faculty from all disciplines are welcomed as participants. Through our conference, we seek to facilitate the exchange of ideas among all fields of inquiry, encourage scholarly investigation, and foster the educational function of research, broadly defined.

Conference Keynote Speaker

Dr. Terri Bowers Hunter
University of South Florida

Terri Hunter, Ph.D., is the licensing manager of the Division of Patents and Licensing for the University of South Florida. She is responsible for managing life science technologies from initial disclosure through licensing and the maintenance of the license. Prior to joining the Division of Patents and Licensing, Dr. Hunter worked as a Research Scientist at Moffitt Cancer Center in Tampa. At Moffitt, Dr. Hunter performed translational research focused on cancer vaccines and combination therapies for cancer. She has also served as a DNA analyst/expert witness for the Florida Department of Law Enforcement.



Her post-doctoral training was conducted at St. Jude Children’s Research Hospital in Memphis, Tennessee from 1998-2000. She received a B.S. in Biology from Palm Beach Atlantic University in 1994, a M.S. in Medical Sciences from the University of South Florida, College of Medicine in 1997, and a Ph.D. in Medical Sciences from the University of South Florida, College of Medicine in 1998 (Medical Microbiology and Immunology Program).

Dr. Hunter’s research interests included microbial genetics, DNA analysis, cell signaling, immunobiology of cancer, gene-modified tumor cell vaccine research: specifically pre-clinical and clinical research and combination biologic and pharmacologic treatments for cancer.

2012-2013 Conference Schedule

Tuesday, March 19th
Lassiter Rotunda - Warren Library
11 a.m.—12 p.m.

Welcome and Opening Prayer

Dr. Joseph A. Kloba
Provost and Chief Academic Officer

Introduction of
the Keynote Speaker

Dr. Raymond Waldner
Professor of Biology
Associate Dean of Sciences
School of Arts and Sciences

Keynote Speaker

Dr. Terri Bowers Hunter
Licensing Manager, Life Sciences
University of South Florida—Tampa, FL

Remarks

Mr. A.J. Titus
President, Student Government Association

Student and Faculty Poster Presentations on display in the Lassiter Rotunda

Student and Faculty Oral Presentations
Hanley Classroom and Center for Teaching Excellence (CTE), room 208
Warren Library
1 p.m.— 3 p.m.

Science and Mathematics Track

Hanley Classroom

1 p.m.

Dr. Mirelle Aleman

Assistant Professor of Chemistry
School of Arts and Sciences

1:30 p.m.

Dr. Marsha Guntharp

Associate Professor of Mathematics, and

Dr. Fred Browning,

Associate Professor of Physics
School of Arts and Sciences

2 p.m.

Dr. Dana Brown

Associate Professor of Pharmacy Practice, and

Dr. Christine Yocum,

Assistant Professor of Pharmacy Practice
Gregory School of Pharmacy

2:30 p.m.

Dr. Judith Drumm

Associate Professor of Nursing
School of Nursing

Humanities and Religion Track

CTE 208

1 p.m.

Dr. E. Randolph Richards

Professor of Biblical Studies and Dean
School of Ministry

1:30 p.m.

Dr. Linda Ellington

Associate Professor of Business
MacArthur School of Leadership

2 p.m.

Mr. James Carter

Biblical Studies Major
School of Ministry

2012-2013 Conference Schedule

Wednesday, March 20th

Student and Faculty Posters on display in the Lassiter Rotunda

Student and Faculty Oral Presentations
*Hanley Classroom and Center for Teaching Excellence (CTE), room 208
Warren Library
1 p.m.— 3:30 p.m.*

Science and Mathematics Track

Hanley Classroom

1 p.m.

Mr. Harold Pettit

Office of Campus Safety

1:30 p.m.

Ms. Samantha Loutzenhiser and
Ms. Katherine Harvey, *Biology Majors*
School of Arts and Sciences

2 p.m.

Mr. Joshua Holbrook

Biology '09
School of Arts and Sciences

2:30 p.m.

Dr. Matthew J. DellaVecchia, *Assistant Professor*
of Pharmaceutical Sciences
Gregory School of Pharmacy

3 p.m.

Dr. James Mitroka, *Associate Professor of*
Pharmaceutical Sciences, and
Ms. Stephania Almonte, *Pharmacy Major*
Gregory School of Pharmacy

Humanities and Religion Track

CTE 208

1 p.m.

Dr. Michael O'Connor

Assistant Professor of Music
School of Music and Fine Arts

1:30 p.m.

Dr. Roger Chapman

Associate Professor of History
School of Arts and Sciences

2 p.m.

Mr. Peter Bowen

History Major
School of Arts and Sciences

2:30 p.m.

Dr. Paul Copan

Professor and Pledger Family Chair
of Philosophy and Ethics
School of Ministry

3 p.m.

Dr. Olga Rybalkina, *Assistant Professor*
Graduate Counseling Psychology
West Palm Beach campus, and
Dr. Andrea Dyben, *Assistant Professor*
Graduate Counseling Psychology
Orlando Campus, School of Education
and Behavioral Studies

Oral Presentations

Science and Mathematics Track

1 p.m.— 3 p.m.

Tuesday, March 19th

Hanley Classroom

Integrated Approach to Small-Scale Ethnopharmacology Projects for Undergraduate Research

**Dr. Mirelle Aleman, Assistant Professor,
School of Arts and Sciences**

Conducting research programs that expose undergraduate students to real life research is not without its challenges in a small liberal arts college. While our primary focus is on education and not research, and although the availability of private research funding is limited, it is important to provide students with the opportunity to experience realistic laboratory situations that will equip them for their future career choices (pharmacy, medicine, dentistry, biomedical and pharmaceutical research, and others.) We have chosen to follow an integrated approach, merging our strengths and knowledge in biology and chemistry, in order to propose a standardized program that would train students in the investigation of potential new therapeutic treatments. Ethnopharmacology is a field of study that focuses on the isolation of novel natural compounds from locally grown and/or raised products for the purposes of developing new treatments for a wide variety of diseases. Because of our proximity to the coast and the wealth of resources South Florida has to offer, and in the hopes of extending our approach to environmental biology, we have chosen to concentrate on this field of study, as it applies to breast cancer research.

Partnering with Conniston Middle School in Mathematics and Physics

**Dr. Marsha Guntharp, Associate Professor of
Mathematics and Dr. Fred Browning,
Associate Professor of Physics, School of
Arts and Sciences**

As part of a grant with partnering Conniston Middle School, students built large slingshots to launch pumpkins through the air, similar to Angry Birds. The Conniston Algebra II Honors class took video of students slinging pumpkins with a Video Physics app on iPads. They then discussed different ways to mathematically model the flight of the pumpkins, including the use of vectors. During this presentation we will show video clips and give an explanation of the project and results.

Planning and Implementing a Medical Missions Trip: A Focus on Efforts at GSOP

**Dr. Dana Brown, Associate Professor
of Pharmacy Practice and Dr. Christine
Yocum, Assistant Professor of Pharmacy
Practice, Gregory School of Pharmacy**

Since 2003, Gregory School of Pharmacy (GSOP) faculty, students and alumni have participated in medical missions efforts. The program has significantly expanded since that time growing from one trip a year to four-five trips each year. The current program encompasses both domestic and international medical missions efforts, and this year's trips will be to Belle Glade (FL), Bolivia, Costa Rica, Honduras, and Uganda. As part of such efforts, GSOP faculty members have had the privilege to publish a four article series on these missions efforts in the *Annals of Pharmacotherapy*. The first article focused on formulary development and medication acquisition and provided several questions for consideration as medical mission trips are prepared. The second focused on the concept of servant leadership as well as team dynamics, both before and during a trip. The third article described how fourth year pharmacy students receive academic credit through the Advanced Pharmacy Practice Experience (APPE) model. The final article in this series focused on data collected from students who participated on medical missions teams through the GSOP in the summer of 2011, and specifically examined professionalism and the personal impact experienced by students.

The Student's Experience of Learning Caring **Dr. Judith Drumm, Associate Professor of Nursing, School of Nursing**

Caring has been identified as an essential value for baccalaureate nursing education. This phenomenological study investigated the lived experience of students learning caring in a college of nursing grounded in a caring philosophy. One student shared this thought: "I knew who I was and I knew I could care about people, but I didn't know how to use caring in nursing. The educational process helped me to transfer caring to nursing." Two major themes and six sub-themes emerged from the research. First major theme, Innate knowing of self as caring, is supported by the sub-themes: Being present for the patient, Being open to reshape the patient's experience, and Enhanced capacity to care. Second major theme, Caring in the curriculum, is supported by the sub-themes: Clinical experiences are valuable to learning, Doing little things to express caring, and Learning activities facilitated understanding caring. Implications for education, research, and practice are presented.

Humanities and Religion Track

1 p.m.— 3 p.m.

Tuesday, March 19th

CTE 208

Misreading Scripture with Western Eyes: Removing Cultural Blinders to Better Understand the Bible

**Dr. E. Randolph Richards, Professor of
Biblical Studies and Dean, School of Ministry**

Dr. Richards discusses his recent book which sheds light on the ways in which Western readers often misunderstand the cultural dynamics of the Bible. The authors identified nine key areas where modern Westerners have significantly different assumptions about what might be going on in a text. Drawing on their own cross-cultural experience in global mission, the authors discussed how better self-awareness and understanding of cultural differences in language, time and social mores allow us to see the Bible in fresh and unexpected ways.

The Wetlee Series: Combating America's Bullying Crisis

**Dr. Linda Ellington, Associate Professor
of Business, MacArthur School of Leadership**

The methodology used for researching the anti-bullying crisis in the United States was an in-depth literature review and in the field interviews. The literature was from peer reviewed journals, government website, and universities who have created anti-bullying centers on their campus. One of the overall statistics, that is quite frightening and significant for the publishing of the *Wetlee Series*, is that this year alone 13 million kids in the U.S. will be bullied. Three million of these children will be absent from school at some point each month because they feel unsafe at school. There were three age groups within the sample size for this research. The findings from the field testing were:

- Kindergarten: "I was afraid to tell anyone. What if I get bullied again because I told?"
- Middle school: "Why tell anyone? No one ever listened when I was little and I was being bullied, so why would they listen to me now? Why would anyone believe me?"
- Adults: "I do not think about it, unless something triggers the memory, and the sadness comes from the sub-basement of my heart and creates the hurt all over again."

The significance of the study and the publication of the *Wetlee Series* of children's books is to show healing and growth can emerge from true friendship, caring for others, and being accepted as you are.

Scripture in George MacDonald's Unspoken Sermons Series I

**Mr. James Carter, Biblical Studies Major,
School of Ministry**

This paper will use the first series of George MacDonald's *Unspoken Sermons* to examine the Scottish theologian's view of scripture, including implicit and explicit references to the Bible. This evidence will then be compared to his stated opinion in *George MacDonald and His Wife*, a biography written by his son. Any research on MacDonald's theology will be necessarily exploratory.

Science and Mathematics Track

1 p.m.— 3:30 p.m.

Wednesday, March 20th

Hanley Classroom

Electrogravitic Motor Development for LevCar Product Application

**Mr. Harold W. Pettit, Jr., Office of
Campus Safety**

AEC is a development engineering company promoting Electrogravitic Technology for the transportation, electrical generation, and electrical distribution industries. As technology is developed, AEC will offer demonstrated technology to established mainstream manufacturers and/or distributors in the form of Technology Transfer Licenses. It is the firm belief of AEC that several industries can be completely revolutionized by Electrogravitic Technology which will introduce implosive versus explosive work generation processes. It is the intent of AEC to bring change to existing technology such that global infrastructures will produce a society that is more protective of the Earth's natural resources by significantly reducing or eliminating those processes that produce pollution, introduce harmful by-products into the environment, or remove necessary natural resources from the environment. Thereby, AEC hopes to avoid future world war, loss of world economy, and break down of world society when existing processes can no longer support/provide services at the levels anticipated later in the 21st century.

Torry Island Study (Belle Glade, Florida): Nutrients in leaves, soil, and water of pond apple (Annona glabra) swamps in relation to Everglades restoration

**Biology Majors Samantha Loutzenheiser
and Katherine Harvey, School of Arts
and Sciences**

This study was conducted to determine concentrations of phosphorus, nitrogen, and carbon in soil,

water and pond apple (*Annona glabra*) leaves on Torrey Island (Belle Glade), in nutrient enriched Lake Okeechobee, Florida. Pond apples, crucial components of the historical Everglades, provide valuable wildlife habitat, anchor soil and uptake nutrients. Nutrients, including phosphorus and nitrogen, that can act as pollutants, then become unavailable for flow downstream into the Everglades ecosystem. Phosphorus can be a limiting factor for plant growth, and small changes in concentrations influence entire communities. Three sites were chosen for study. Nutrient enrichment occurred in soil, water and leaves of pond apple swamps. In soil, values for phosphorus seemed to be slightly higher at the surface than at depth (to 30 cm) and concentrations of all tested nutrients were lower than values in leaves, but higher than those in water.

A Field Guide to the Snakes of Southern Florida.
Joshua Holbrook Biology '09, School of Arts and Sciences

In this presentation, Mr. Holbrook will discuss his new book and the research that went into its development. The guide is for reptile and amphibian enthusiasts, amateur naturalists, professional biologists, and visitors to southern Florida. The book discusses Florida's diverse natural areas and contains descriptions of each native snake species as well as all known established exotic species. It contains a fool-proof key to identifying all of Florida's native snakes and has tips on finding snakes in Florida.

Assessing the Impact of a Pharmacy Student-led Class Project on Undergraduate Students in a Medicinal Chemistry Course

Dr. Matthew J. DellaVecchia, Assistant Professor of Pharmaceutical Science, Gregory School of Pharmacy

A pharmacy student served as a teaching assistant (TA) in an undergraduate medicinal chemistry course. The TA developed a novel lecture/class assignment pertaining to performance enhancing drugs (PEDs). A Likert-scale survey assessed undergraduate students' perceived knowledge of the medicinal chemistry of PEDs before and after the TA-led assignment and their perception of the TA's involvement in the course. Analyses were conducted using SPSS/PASW v.20. The survey instrument was reliable (Cronbach's alpha = 0.825; good construct validity). A Wilcoxon Signed Ranks test indicated a significant increase in students' perceived confidence in their knowledge of the medicinal chemistry of PEDs after the pharmacy TA's lecture and project (p -values \leq 0.001). Undergraduates (80.0%) responded favorably to the TA's lecture and 62.6% agreed that TA availability increased their confidence for doing well in the course. Involving a pharmacy student TA may be an effective way to infuse new content into an established undergraduate course.

Cortisol measurement in hair

Dr. James Mitroka, Assistant Professor of Pharmaceutical Sciences; and Stephanie Almonte, Pharmacy Major, Gregory School of Pharmacy

The researchers evaluated the feasibility of measuring cortisol in hair in the GSOP research lab. Hair was collected from the local barber shop, ground to a powder, and extracted with an organic solvent. The solvent was evaporated and the residue analyzed for cortisol. Samples containing known amounts of cortisol were also analyzed. The analysis was adopted from a commercially available competitive binding assay for cortisol in saliva. Concentrations of cortisol in the spiked samples fell within 20% of the expected concentration. Concentrations of cortisol in hair were about 5 to 10 fold higher than values reported in the literature. The reason for this discrepancy is unknown, but may be due to non-specificity of the assay. Plans are underway to utilize LC/MS/MS for measuring cortisol in hair extracts. In the future, we hope to evaluate hair-cortisol levels as an index of stress in students.

Humanities and Religion Track

1 p.m.— 3:30 p.m.

**Wednesday, March 20th
CTE 208**

Treasures of the Golden Age: Essays in Honor of Robert M. Stevenson

Dr. Michael O'Connor, Assistant Professor of Music, School of Music and Fine Arts

Treasures of the Golden Age is a collection of new scholarship by some of the most recognized scholars in Hispanic and Portuguese early-modern music studies. Each essay was written in honor of and appreciation for the pioneering work of Robert M. Stevenson in the area of Liberian and Latin American Renaissance music. Stevenson's constant advocacy for this music and his formidable work are clearly evident in the topics and rigor of the essays presented in the book. In addition to editing, Dr. O'Connor wrote a chapter, "The Polyphonic Marian Antiphon in Renaissance Spain."

Thomas Jefferson's Bible and American Civil Christianity

Dr. Roger Chapman, Associate Professor of History, School of Arts and Sciences

This presentation will focus on how to interpret Thomas Jefferson's controversial "cut and paste" job on the New Testament. In this activity, America's third president and the author of the Declaration of Independence eliminated from the gospel texts all of the reported miracles (including the Resurrection) while solely preserving the ethical

teachings of Christ. Quite recently, the Jefferson Bible has been part of a debate concerning David Barton's *The Jefferson Lies*, a work that the Christian publishing house Thomas Nelson later pulled from book stores after numerous historians pointed out glaring mistakes and willful ignoring of sources that undermined the author's overall thesis. This presentation will argue that the debate over Barton's book and Jefferson's Bible must consider how the American founders' "Nature's God" was, despite the accompanying Enlightenment presuppositions, of a Christian perspective. Such realization would logically render American civil religion as American Civil Christianity.

The Fountain of Youth: Myth and the Founding of Spanish Florida

Peter Bowen, History Major, School of Arts and Sciences

This presentation will detail aspects of Spanish culture that allowed for acceptance of the Fountain of Youth myth, demonstrate that the myth was not as foreign to the Spanish as it would initially seem, and explain how the myth became solidified in the lore of Spanish Florida. It will focus on (1) water imagery found in Spanish culture and religious beliefs prior to and during the initial "discovery" of Florida by Juan Ponce de León, and (2) written accounts associated with the exploration of Florida from the time of Ponce de León to demonstrate the staying power of the myth. This work will be grounded in primary documents detailing Spanish exploration in the New World and their search for the Fountain of Youth, as well as documentation to show the prevalence of water imagery in Spain's Catholic culture.

The Routledge Companion to Philosophy of Religion and Creation Out of Nothing

Dr. Paul Copan, Professor and Pledger Family Chair of Philosophy and Ethics, School of Ministry

Dr. Copan will be discussing the new edition of *The Routledge Companion to Philosophy of Religion*. The book is considered an indispensable guide and reference source to the major themes, movements, debates and topics in philosophy of religion. Considerably expanded for the second edition, over seventy entries from a team of renowned international contributors are organized into nine clear parts: 1) Philosophical issues in the world religions; 2) Key figures in philosophy of religion; 3) Religious diversity; 4) The theistic concept of God; 5) Arguments for God's existence; 6) Arguments against God's existence; 7) Philosophical theology; 8) Christian theism; 9) Recent topics in philosophy of religion. Woven within a discussion this text, Dr.

Copan will tie in related themes from *Creation out of Nothing*, co-authored with William Lane Craig. Here, the authors examined the biblical, philosophical, and scientific case for creation out of nothing. Furthermore, they make it clear that nothing less than the uniqueness and sovereignty of God are at stake. This book will challenge all thoughtful Christians to understand why it is important to believe in the doctrine of creation out of nothing.

International Immersion Programs as a Part of Graduate Training: Trends from a National Review

Dr. Olga Rybalkina, Assistant Professor, Graduate Counseling Psychology West Palm Beach campus, and Dr. Andrea Dyben, Assistant Professor, Graduate Counseling Psychology Orlando Campus, School of Education and Behavioral Studies

Internationalization of the university curriculum is a truly interdisciplinary quest. This presentation focuses on study abroad as a means to foster intercultural competence of graduate students in counselor education programs. Through the findings of a research project, the participants will learn about international immersion experiences for counselors in training nationwide. Challenges and opportunities in integrating study abroad across the disciplines will be discussed. Faculty engaged in similar work and those who seek to introduce international experience will find the program relevant and informative.

Poster Presentations by our Campus Community

Internal and External Source-Monitoring in Children: Initial Comparisons among Normal, Neglected and Conduct-Disordered Youth

David M. Compton, Professor of Psychology, School of Education and Behavioral Studies

Children ($n = 85$) between the ages of 6 and 16 were administered an Internal Source Monitoring Test (ISM), and an External Source Monitoring Test (ESM). In addition, the children were assessed using the Children's Category Test (CCT), the Wechsler Intelligence Scale for Children-Third Edition (WISC-III), and the Wisconsin Card Sorting Test (WCST). The primary interest was to compare the source monitoring and cognitive processes of children in foster care with a diagnosed conduct disorder and children in foster care without a psychiatric diagnosis. In addition, group consisting of children living with their parents was included for comparative purposes.

For the primary analyses, the dependent variables consisted of raw ISM and ESM scores, full-scale IQ, measures of working memory and processing speed as described earlier, and the total and perseverative error measures of the WCST. First, because age differences were expected, a MANOVA was used with the age of the subject grouped into three categories of 6 to 12, 10 to 12, and 14 to 16 year olds. Following the verification of age differences on the dependent measures, a MANCOVA with the living arrangement and psychiatric diagnosis comprising three groups: (1) a living at home with parents comparison group, (2) a second comparison group consisting of children living in foster care but with no psychiatric diagnosis, and (3) a group of children living in foster care with a diagnosed conduct disorder. Age, as a continuous variable, served as the covariate.

ISM scores revealed that both of the control groups differed from the foster care / conduct disorder group, with scores in the foster care control group comparable to that of the control group. The control group had significantly higher FS-IQ scores than either foster care group. In addition, FS-IQ scores in the foster care control group were intermediate between that of the control and conduct disorder groups. Children in the control group made significantly fewer total errors and perseverative errors than either foster care group. However, the number of perseverative errors for the two foster care groups was comparable.

Modification of Serial Pattern Learning by Designer Tryptamine Exposure during Adolescence: Comparison with Damage to the Dorsal Hippocampus or Prefrontal Cortex

David M. Compton, Professor of Psychology, with Psychology Majors Eric Westman and Peter Otero, School of Education and Behavioral Studies and Melissa C. Selinger, Nova Southeastern University

Foxy or Methoxy Foxy (5-MeO-DIPT) is one of a series of new "club drugs" that within the past decade has gained in popularity among recreational users as an alternative to MDMA (Ecstasy). Unlike MDMA, not much is known about the neurobiological consequences of 5-MeO-DIPT use. Little is known about the effects of either compound on learning in a nonspatial appetitive task. In the present study, adolescent rats were given repeated injections of 10 mg/kg of 5-MeO-DIPT, MDMA, or a corresponding volume of isotonic saline. In serial learning tasks, depending on task demands, there is a growing body of evidence suggesting that multiple memory systems play a critical role, with each system playing a more or less dominant role depending on the available stimuli and task demands. Therefore, for comparison purposes, the drug-treated rats were compared with that of hippocampus- or prefrontal cortex-lesioned rats. After adolescent drug exposure or lesions during adolescence, adult animals were trained. All animals were trained for 30 days on a three-element, nonmonotonic pattern consisting of 21, 0, and 7 food pellets, respectively. Control rats were capable of distinguishing among the elements of the series, as indexed by running times. As expected, the tracking performance of the lesioned rats was impaired. Performance in both the 5-MeO-DIPT- and the MDMA-treated rats improved with training but after 30 days was not markedly different than the lesioned animals. The results are discussed in terms of measured alterations in serotonin activity in the forebrain and the consequences of compromised serotonergic systems on the cognitive processes involved in appetitive serial learning tasks.

The Relationship Between Risk Factors and Stress Response in Women Following Abortion

Ms. Diane Esposito, Assistant Professor of Nursing-Psychiatric, School of Nursing

This study seeks to explore the relationship between risk factors such as the experience of multiple abortions, abortion due to fetal anomalies, the experience of coercion or social pressure in abortion decision making and lack of adequate informed con-

sent with the experience of a stress response in women after exposure to abortion. A cross sectional, correlational approach will be utilized, incorporating an anonymous survey that identifies risk factor exposure with standardized assessment tools for measuring the level of perceived autonomy support from significant others (Important Others Climate Questionnaire) and level of perceived autonomy support from abortion providers (Healthcare Climate Questionnaire). The dependent variable will be the experience of a stress response directly related to the abortion experience as measured by the Impact of Event Scale – Revised version (IES-R). Statistical analysis via SPSS will include linear multiple regression analysis to identify significant relationships between these variables.

Self-Reported Health and Dysfunction in Second-Year Student Pharmacists: Utility of a Comprehensive Health Profile Measure

Dr. Jamie Fairclough, Assistant Professor of Administration and Social Sciences, Janelle Ludwig, Pharmacy Major, Gregory School of Pharmacy

The Accreditation Council on Pharmacy Education (ACPE) recommends the periodic assessment of student pharmacists' perceived levels of stress and the impact that stress has on other factors of interest. Because of the pervasive effects of stress, the extent of health-related dysfunction in the pharmacy student population should be assessed with a comprehensive, psychometrically-sound instrument. The primary objective of this study was to evaluate the utility of a single, comprehensive, self-administered health inventory (Duke Health Profile, DHP) as a measure of self-reported health and dysfunction in second-year student pharmacists (n=72). Preliminary analyses were conducted to assess the instrument's psychometric properties. Nonparametric statistics were used for primary analyses of summated scale scores computed for each DHP domain. Results of this study suggest that there may be some utility in using the DHP alone to assess self-reported health and dysfunction in student pharmacists; however, the instrument must be further validated with a larger and more diverse sample to fully determine the appropriateness of its use among student pharmacists.

Factors Influencing Regular Attending in Student Ministry Activities

Dr. Jonathan Grenz, Associate Professor of Ministry Leadership Studies, School of Ministry

Advanced Student Ministries students and Dr. Grenz conducted a study on the factors that influence teenagers' attendance at weekly church and para-church student ministry activities. Our desire was to

understand why students were attending, so youth ministry workers could enhance their effectiveness in making disciples of Jesus Christ among teens. After development of an instrument, data was collected from 276 students and 13 youth pastors/leaders from 13 different ministries within Florida. Factors clustered around four areas: family factors, peer group factors, program factors, and belief factors. While gender had little to no influence on responses, the age of the respondents brought significant differences in family factors and belief factors.

Cardiac Emergencies in Sports Medicine

Dr. Tyler Hamilton, Assistant Professor of Athletic Training, School of Education and Behavioral Studies

Sudden cardiac arrest (SCA), while uncommon, is of great concern in sports medicine. Athletes suffering SCA are transferred between numerous health professionals from a pre-hospital to hospital setting in an effort to mitigate risk of death. As such health care providers must mutually understand guidelines and protocols for emergency care in addition to approaching a patient's care with careful coordination. Therefore, the purpose of this project is to synthesize updated guidelines from athletic training and ACLS for use by health care professionals providing ongoing or temporary care of competitive or recreational athletes.

What Matters in Building a Therapeutic Alliance: Voices of Latino Clients in Therapy

Veronica Tellez-Negret, Graduate Counseling Psychology Major and Dr. Olga Rybalkina, Assistant Professor of Psychology, School of Education and Behavioral Studies

Current counseling research involving Latino population primarily focuses on negative behaviors or avoidance, resistance and premature termination of therapy. This qualitative study seeks to tune in to the voices of Latino clients and to examine their understanding of what matters in building a therapeutic alliance. Selected Spanish-speaking adults currently utilizing professional counseling services sponsored at a church of approximately 1,300 Latino congregants in Palm Beach County will be invited to participate. From prior studies, we already know many of the reasons why Latinos underutilize mental health services, include conflicting cultural values, socioeconomic factors, spiritual beliefs, language barriers, and stigmatized perceptions of mental distress. What we do not understand as clearly are the aspects of counseling considered beneficial for forming a therapeutic alliance through the eyes of Latino clients. This poster presentation offers a preliminary review of the study, its rationale, significance and methodology.

"If I Should Forget Thee, O Jerusalem": Going to the Source—Israel

Dr. Lee Prescott, Associate Professor of English, School of Arts and Sciences

In Psalm 137, a lament of exile, the psalmist says that even though it is difficult to sing the Lord's song in a foreign land, but nevertheless, he must remember Jerusalem, the symbolic home of the Jewish people. The importance of Israel, its land, its heritage, and the holy city of Jerusalem, spiritual home to the three monotheistic faiths, cannot be overstated.

During the reign of terror that the Nazis unleashed upon the world, every European Jew under Nazi authority was under a death sentence. Regardless of whether the individual Jew believed in or practiced Judaism, to be Jewish was to be condemned. Some religious Jews longed to immigrate to Israel, then called Palestine, because, according to Scripture, the Lord gave the land to his Chosen People. Some Jews who were not religious also wished to immigrate to the Holy Land because they wanted to live in a nation where it was safe to be a Jew.

As a scholar of autobiographies written by Jewish survivors of the Holocaust, I knew that I needed to see Israel and experience her dynamic impact for myself. Not surprisingly, Israel is home to the largest number of Holocaust survivors, followed by the United States. I traveled to Israel under the auspices of a Boston-based interfaith group; we were Jews, Christians, and agnostics, who together experienced the small but vital land that is Israel. Because of the trip, I have a richer understanding of Judaism. Among the many positive experiences I had was being invited by the group's leaders to discuss Holocaust literature while we visited Yad Vashem, one of the world's premier Holocaust museums.

A Neuropsychological Assessment of the Effects of Chronic Ketamine Exposure in a Rodent Model of Drug Abuse

Psychology Majors Tegan Wedge and Katie Poulton, with Dr. David Compton, Professor of Psychology, School of Education and Behavioral Studies

The current evidence suggests that recreational use and abuse of the dissociative anesthetic ketamine is increasing. Characterization of the cognitive risks of ketamine exposure contributes substantially to understanding this growing public health threat. Although prior human studies demonstrate that ketamine impairs a range of cognitive skills, investigation in nonhuman mod-

els permits more precise examination of neurochemical mechanisms which may underlie detrimental behavioral effects. When abused, dissociative anesthetics such as ketamine can produce behavioral symptoms ranging from psychotic episodes, mood alterations, cognitive disturbances, and hallucinations in humans. Unfortunately, the effects of ketamine abuse in humans have been confounded with polydrug use. In the present investigation, a neuropsychological battery of tests was used to assess spatial and non-spatial learning performance in the ketamine-treated rats exposed in early adulthood with that of control animals.

Impact of a Standardized Medication Reconciliation Form and a Bring Your Medicines Campaign on Medication Discrepancies in an Indigent Ambulatory Care Setting

Riley Williams II, Pharmacy Resident, with and Dr. Ashley Johnson, Assistant Professor of Pharmaceutical Practice, and Dr. Jamie Fairclough, Assistant Professor of Administrative and Social Science, Gregory School of Pharmacy

Background: Discrepancies in medication use can lead to adverse drug reactions, drug-drug interactions, duplication/lack of therapy, and numerous other adverse outcomes. The objective of the current study is to determine whether a standardized medication reconciliation form and bring-your-medicines campaign increase documentation and reconciliation of medication discrepancies at an indigent ambulatory care clinic utilizing paper charts and serving a multi-lingual, low-health literacy population.

Methods: The master list of patient visits for the health clinic will be used to establish a random sampling of patient charts ($n = 150$) for review pre-and post-campaign intervention. Patient demographic information, completeness and accuracy of the prescribed drug regimen, whether discrepancies are identified by the provider, and, where so identified, what actions were taken to resolve the discrepancies will be recorded and evaluated without patient identifiers. The primary outcome will evaluate whether a composite of drug regimen for actual use was increased post-intervention.

Attitudes towards Counseling among Today's African-American Male Colleges Students: A Grounded Theory Study

Terrini Woods, Graduate Counseling Psychology Major, and Dr. Olga Rybalkina, Assistant Professor of Psychology, School of Education and Behavioral Studies

This qualitative study in progress explores African-American male (AAM) college students' perceptions of mental health counseling and methods of depression management.

While some researchers have labeled the millennial generation "post-racial," such understanding is challenged in studies suggesting that race continues to play a profound role in the lives of young African Americans. The data is gathered through a series of interviews with AAM college students on two campuses in South Florida – a faith-based private institution and a large, public university.

The study examines issues related to age, masculinity and social structures, perceptions of mental health services and approaches, spirituality, and adopted methods of self-managing depression and other mental health issues in this group.

Torry Island Study (Belle Glade, Florida): Nutrients in leaves, soil, and water of pond apple (*Annona glabra*) swamps in relation to Everglades restoration

Dr. Peggy VanArman, Professor of Biology, and Samantha Loutzenheiser, Katherine Harvey, and Luke Young, Biology Majors, School of Arts & Sciences with Dr. Carlos Coronado-Molina, South Florida Water Management District.

This study was conducted to determine concentrations of phosphorus, nitrogen, and carbon in soil, water and pond apple (*Annona glabra*) leaves on Torrey Island (Belle Glade), in nutrient enriched Lake Okeechobee, Florida. Pond apples, crucial components of the historical Everglades, provide valuable wildlife habitat, anchor soil and uptake nutrients. Nutrients, including phosphorus and nitrogen, that can act as pollutants, then become unavailable for flow downstream into the Everglades ecosystem. Phosphorus can be a limiting factor for plant growth, and small changes in concentrations influence entire communities. Three sites were chosen for study. Nutrient enrichment occurred in soil, water and leaves of pond apple swamps. In soil, values for phosphorus seemed to be slightly higher at the surface than at depth (to 30 cm) and concentrations of all tested nutrients were lower than values in leaves, but higher than those in water.



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