Marywood University

24th Annual Graduate Research Forum

April 23, 2015
Welcome to the 24th Annual Marywood University Graduate Research Forum

Faculty members and Graduate level students of Marywood University were invited to participate in the 24th Annual Graduate Research Forum. Participation in this poster format program includes both individuals who are voluntarily presenting examples of their scholarship presentations and presentation of required class projects. This booklet contains the abstracts of participants in this year’s forum. Abstracts are organized by college and alphabetized by first author’s last name.

Marywood University continues its tradition of encouraging the development of scholarship by celebrating the research and application projects that students and faculty have worked on during the past year. Throughout their graduate studies, students have been prepared to develop and test theories by examining current practices within their respective disciplines. Since last year, we have expanded the scope of the forum to include professional contributions as well as experimental approaches to research projects. The Graduate Research Forum is an opportunity for faculty members and students to share their knowledge with both our Marywood community and the larger community.

The Research Forum is the result of close cooperation of many people throughout the University. We would like to thank members of Marywood University’s Maintenance Department, Media Services, Print Shop, and Dining Services. We also extend a special thanks to Kristie Congdon for creating a multimedia accessible program for the forum, and Rima Anescavage for assisting with communications.

We are grateful to Deans Frances Zauhar, Gregory Hunt, Mark Rodgers, Terri Peters and Collier Parker for their continued support of this endeavor. We also thank President Anne Munley, IHM, Ph.D., Dr. Alan Levine, Vice President for Academic Affairs and Dr. Maria Montoro Edward, Vice President of Research, Office of Research and Sponsored Programs who further collaborative scholarship between our faculty and graduate students.

Most importantly we thank the faculty who encourage the spark of scholarship in our students and the students themselves whose intelligence, creativity, and enthusiasm make this event possible.

Christopher Brey, Ph.D., CLAS
Bruce Wisenburn, Ph.D., RCEHD
Michelle Gonzalez, Ph.D., RCEHD
Kimiko Tanaka, Ph.D., CHHS
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Challenges Facing Low-Income Single Mothers

Madijah Alanazi
Sponsored by Dr. Kimiko Tanaka
College of Health and Human Services

Abstract

The purpose of this study was to directly measure feelings of low-income single mothers, which attend an establishment that provides services to such individuals, by the challenges they face. The sample size was forty. Participants were evaluated on an Everyday Stressors Index (ESI), developed by Hall (1983), a five-point Likert scale, based on their responses to twenty questions designed to assess the challenges of employment, well-being, interpersonal relationships, and finances. This study provided statistical data to help understand programs improving social welfare among this population group. It was seen that low-income single mothers feel bothered by the challenges associated with employment, well-being, and finances, but not as much by interpersonal relationships. In the practice of social work, creation of and revitalization of existing programs that address these three metrics should be explored.
The Study of Aggressive Behavior among Children with Autism

Caroline Archer
Sponsored by Dr. Kimiko Tanaka
College of Health and Human Services

Abstract

The purpose of this research project was to find out if behavioral intervention in aggressive Autistic children causing control of their behavior. A single subject design was used throughout this project. The participants were two Caucasian males. The sampling strategy for this research was simple random sampling. A chart review was conducted in order to collect data from the agency. The results of this project showed that the behavioral intervention had no effect on the decrease of the behavior. This research study displayed relevance to the practice of social work. The goal of the social workers is to assist with the issues that come about from this disorder. The social worker strives to help the client to improve their behavior.
Teachers’ Perception of Bullying

Evan Baier
Sponsored by Dr. Kimiko Tanaka
College Health and Human Services

Abstract

This research examined how a teacher’s self-efficacy, perceived student teacher relationship, and school environment can affect how likely a teacher is willing to intervene in various bullying situations, and motivation the teacher would exhibit in an anti-bullying program. It used a cross sectional study design and availability sampling to evaluate elementary school teachers in a rural school district in northwestern Pennsylvania, in the United States of America. Twenty-seven teachers were given the Self-Efficacy Scale (TSE) by Schwarzer, Schmitz, and Daytner (1999), School Environment Survey (SES) (Csuti, 2008), Student-Teacher Relationship Scale (STR) (Pianta, 2001), and Sense of Community Index (SCI) (Chavis, Lee, & Acosta, 2008). No significant difference was found among variables. However, the correlation coefficients were not trivial; it may be worthwhile to replicate the study using a larger sample size.
The Factors that Affect the Mentally Ill Homeless Individuals with Dual Diagnosis to Afford Housing.

Prea Chandrica
Sponsored by Dr. Patricia Weldon
College of Health and Human Services

Abstract

This mixed methods study explored on factors that homeless men with drug abuse and, or mentally illness adults faced in Binghamton, New York. The study is going to describe the various factors of being homeless combined with challenges of substance abuse and or mental Illness. The sample is from The Volunteer of America, a shelter for homeless men in Binghamton, New York that serves individuals who are homeless. Qualitative data was collected from 17 participants who completed self-administered questionnaires. The participants of the survey reported feeling discriminated by others due to their illness. Results also indicate that the majority of men became homeless due to lack of financial resources, rent, employment, case management or social support. The survey is important because it may be used to address issues related to social work practice and/or policy by providing the most current information on homeless adult men in Binghamton area.
The Amount of Monthly Visits between Biological Parent and Child
Greater the Chance of Reunification after Twelve Months

Amanda Ditri
Dr. Kimiko Tanaka
Marywood University

Abstract

The purpose of this study is to determine if the amount of monthly visits between biological parents and their child affect the chances of reunification after twelve months. The child welfare system strives for a healthy well-being of all individuals and encourages the reunification of all children with their biological parents which is what social work is based on. The chance of reunification after a twelve month period will be measured using New Jersey’s ‘Spirits’ case management database. The research design is experimental because the review of charts and documents come from existing data. The population includes children in foster care ranging from 0 months to 18 years. The research will be conducted using 60 separate cases; 30 cases of which after twelve months the children were reunified with their parents, and 30 cases which have not been successfully reunified. Stratified Sampling will be used to determine if the successful reunification between the 30 cases is due to more visitations occurring between the parent and child.
Understanding Collegiate Success of Black, Undergraduates in Predominantly White Educational Institutions

Lyesha J. Fleming
Sponsored by Dr. Patricia Weldon
College of Health and Human Services

Abstract

The subject of African Americans and their success in completing college has been a topic of research for decades. A number of published materials have sought to find correlating dynamics that impact the collegiate outcomes of this particular racial group in predominantly White educational institutions (Cabrera et al., 1999; Davis, 1994; Smith & Hopkins 2004). The research question posed in conducting research was the following – do societal factors have more of an impact on the success rate of Black, undergraduate students predominantly White educational institutions than intellect and preparedness? Likewise, the goal of this research was to successfully identify contributing factors influencing the success of African American within predominantly white colleges and universities. A sample of six students participated by completing both an interview and comprehensive survey constructed by the researcher. A few prominent factors that were found from this research include racial identity, racial prejudice and discrimination, lack of diversity as well as social integration. Results suggest that there is some relationship between societal factors and the outcomes of Black, undergraduate.
Dietary Acculturation of Bhutanese Community in Suburban Northeastern Pennsylvania

Cassandra R. Fox
Sponsored by Ellen K. Payne, PhD, ATC, LAT, CSCS, EMT
College of Health and Human Services

Abstract

Bhutanese refugees resettled to the U.S. represent a large proportion of total refugees relocated to the U.S. Upon resettlement, they face challenges in adapting to Western diet and lifestyle. Through grounded theory research, the dietary acculturation of 10 Bhutanese refugee adults in Scranton was explored. Interviews were conducted, and transcriptions were coded for analysis of emerging themes. Responses from participants suggested shifts toward western diet and maintenance of traditional diet. Many factors interact to affect this process including time, food history, children, and new lifestyle. Discrepancies between perceived health status post-resettlement existed. Suggestions to improve nutritional health of the community were identified. Dietary acculturation is a multifactorial and complex process experienced by refugees and must be addressed to optimize their wellbeing.

Caitlin Gable
Sponsored by Kimiko Tanaka, PhD
School of Social Work and Administrative Studies

Abstract

Posttraumatic Stress Disorder (PTSD) is a condition characterized by developing negative symptoms related to the avoidance of negative stimuli, re-experiencing a trauma, hyperarousal, and the numbing of emotional responses. The rates of PTSD are increasing among military veterans who served in the Operation Enduring Freedom (OEF), Operation Iraqi Freedom (OIF) and Operation New Dawn (OND) conflicts. This critical literature review analyzes bio-psycho-social-cultural-spiritual factors related to PTSD in veterans. In addition to this, the top three treatment models for working with veterans with PTSD are reviewed, which include Cognitive Processing Therapy (CPT), Prolonged Exposure Therapy (PE), and Eye Movement Desensitization and Reprocessing (EMDR). Furthermore, racial disparities that are present among treatment accessibility for veterans are analyzed. An integrative approach to treatment is offered, focusing on incorporating bio-psycho-social-cultural-spiritual factors into treatment, thus treating the veteran as a complete person and not solely a veteran with PTSD.
Does Being Labeled Having a Specific Learning Disability in Postsecondary Education Effect Ones Self-Esteem, Self-Determination, and Self-Confidence?

Mariah Lee Guy
Sponsored by Dr. Patricia Weldon
The School of Social Work and Administrative Studies

Abstract

The aim of this study was to determine the differences in level of self-esteem, self-determination, and self-confidence among post-secondary students with a specific learning disability (SLD) as compared to students without a disability. Forty-eight students were surveyed using the General Self-Efficacy Scale (Schwarzer and Jerusalem, 1995), the Rosenberg’s Self-Esteem Scale (Rosenberg, 1965), and The Air Self-Determination Scale (The American Institutes for Research, 2005). Out of the forty-eight participants, seventeen identified as having a SLD. Ninety-five percent of participants diagnosed with a SLD reported that they have been labeled because of their diagnosis. In addition, it was reported that they felt treated differently by peers and adult/professionals.
Clergy Involvement in the Psychosocial Issues of Their Parishioners

Mandy Mastros & Kimberly Stone
Sponsored by Dr. Phyllis Black
Marywood University

Abstract

The increasing societal incidence of individuals experiencing personal psychosocial issues prompts them to seek help. Religious clergy are among the primary resource to which many individuals turn for help. This study sought to further understand the extent to which clergy are confronted with psychosocial problems of their parishioners, and their comfort level in addressing these problems. A self-selected sample of Moravian clergy (N=68) responded to an anonymous electronic survey soliciting the degree of their engagement with parishioners’ psychosocial problems. The data suggest a majority of clergy encounter a spectrum of psychosocial issues brought to them by parishioners. Most indicated feeling somewhat comfortable dealing with these issues. Furthermore, respondents reported using multiple outside resources to supplement their education and personal experience. The findings support the prevalence of parishioners approaching clergy with personal problems, and the need to provide resources to enhance clergy capacity to serve the psychosocial needs of their parishioners.
Parental Attitudes towards Childhood Obesity since First Lady, Michelle Obama's Initiative

Rahnisha Mayes-Reeves, BA
Sponsored by Dr. Patricia Weldon
College of Health and Human Services

Abstract

The purpose of this study was to determine what impact First Lady; Michelle Obama’s childhood obesity initiative has on parental attitudes with school-age children. The study utilized an exploratory design. This study has two objectives: 1) to determine parents with school-age children attitudes towards providing their child/children with nutritious food; and 2) to determine how effective the First Lady’s initiative is on educating the public about an epidemic facing our nations kids. Qualitative data (n=20) was collected from a sample population in Essex County New Jersey. Of the twenty participants, only seven were knowledgeable of the First Lady’s Initiative. Three of the seven participants indicated that the First Lady’s initiative has prompted them to assure their children lead a healthy lifestyle. Thirteen participants indicated that the initiative had no impact on their lifestyle and food choice decisions for their children.
Depression and its Association with Alcohol Consumption among College Students

Eric Miller
Sponsored by Dr. Kimiko Tanaka
College of Health and Human Services

Abstract

While the literature documents say that there is little to no relationship between depression and alcohol, there are so few studies that more are needed. The aim of this study was to examine this relationship by administering surveys online through SurveyMonkey. Eighty-four (66 females and 18 males) undergraduate and graduate students located in Northeast Pennsylvania participated in the study. By applying the Beck’s Depression Inventory II (Beck, 1996) and the Alcohol Use Disorders Identity Test (Saunders et al., 1993), the research showed a positive correlation between depression and alcohol consumption meaning that the more depressive symptoms one has, the more alcohol one consumes. This is important because many social workers deal with clients who are depressed and it is imperative to realize how alcohol can become a resulting problem.
Stress: Who Feels it More – Traditional or Non-Traditional Students in the University Setting?

WP Miller
Sponsored by Dr. Patricia Weldon
College of Health and Human Services

Abstract

The purpose of this study was to examine the effect of stress on traditional and non-traditional students in secondary education. The participants were mainly from Marywood University along with students from other schools. These students were electronically given a survey to complete via electronic mail or social media. One hundred and fifteen students were surveyed. The participants were surveyed utilizing two established stress scales, the Depression Anxiety and Stress Scale (DASS) and the Perceived Stress Scale along with researcher selected demographic identifiers. The mean score for the DASS in other studies was 21.15 and a standard deviation of 19.79. This survey obtained the DASS mean of 30.87 and had a standard deviation of 20.87. Other studies using the Perceived Stress scale have produced a mean score of 25.8. This survey revealed the mean score to be 19.7. Further research should be conducted reaching a larger targeted demographic in order to get a larger data base. Research into stress among students in secondary education, will allow administrators to help identify areas of concern for the student body.
Caffeine’s Effect on Excess Post-Exercise Oxygen Consumption Following Supramaximal Treadmill Running

Tristan Ragland
Sponsored by Dr. Angela Hillman
College of Health and Human Services

Abstract

The purpose of this study was to investigate the effect of caffeine on the excess post-exercise oxygen consumption (EPOC) following high-intensity treadmill (HIIT) running.

Methods: 8 active males and females participated in the study (4 M & 4 F, Age: 24.2 ± 8.3 years, Weight: 79 ± 24.8 kg, VO$_{2\text{max}}$: 41.3 ± 8.9 ml/kg/min). The study was a single-blind crossover with each participant performing 2 trials of 2x2 min sprints and 2 trials consisting of 3x2 min sprints, both at 108% of VO$_{2\text{max}}$. Participants consumed either caffeine (6 mg/kg of body weight) or a placebo 60 min before exercise and provided a blood sample, followed by measurement of indirect calorimetry, heart rate (HR), and core temperature (Tc). Following a blood sample, participants completed the exercise. Blood was drawn immediately post-exercise and after an additional hour of resting. Results: VO$_2$, RER, HR, and Tc increased post exercise (p < 0.05). While not significant, RER tended to be higher 60 min post exercise in caffeine vs. placebo. Conclusion: EPOC was not elevated 60 min post HIIT treadmill exercise from 6 mg/kg of caffeine supplementation given 60 min before exercise.
Assessment of Dietary Intake of Individuals with Celiac Disease on a Gluten-Free Diet

Lauren P. Razawich
Sponsored by Helen Battisti, PhD, RD
College of Health and Human Services

Abstract

The objective of this study was to assess dietary intake in individuals with CD in the U.S., who follow a strict GFD, in order to determine if they were meeting nutrient recommendations through diet alone. The research design was a cross-sectional postal survey that used a 3 day food record to evaluate if the study population was meeting the DRIs for energy, carbohydrates, protein, dietary fiber, vitamin A, vitamin C, calcium, and iron. Additionally, dietary intake was compared to that of the general U.S. population. Participants were recruited from gluten-free specialty stores and CD support groups on Facebook. A total of 21 volunteers met the criteria for participation and completed the study materials as directed. Mean intakes were as follows: 1897.00 kcal, 217.04 g carbohydrates, 84.62 g protein, 22.72 g dietary fiber, 70.45 g fat, 1126.38 µg vitamin A, 96.03 mg vitamin C, 850.57 mg calcium, and 13.98 mg iron. Mean intakes of calories and calcium were found to be significantly less than the corresponding recommendations. Participants’ average intakes of dietary fiber and vitamin A were significantly greater than the general U.S. population. The results of this study suggest that on average individuals with CD, who consume a GFD, are not meeting all of the DRIs through diet alone.
Family Dynamics and Adolescent Substance Abuse

Jennifer Ross
Supported by Dr. Kimiko Tanaka
College of Health and Human Services

Abstract

The purpose of this study is to continue to investigate why certain adolescents may be more at risk for substance abuse. There are many theories as to why adolescents begin using and experimenting with drugs and alcohol. One theory that has been explored as a possible rationale are an adolescent’s family dynamics. Researching to find a possible correlation between family dynamics and adolescent substance abuse can assist in the prevention of adolescent substance abuse. This research will help continue knowledge to be built for social workers and other researchers on adolescents, substance abuse, and family dynamics. This study will be comprised of approximately 300 student participants from a local middle and high school. They will be asked to complete a questionnaire entitled National Survey on American Attitudes on Substance Abuse XVII: Teens that was created by Casa Columbia (Bollinger et al., 2012).
College Students’ Attitudes Regarding Mental Illness

Marian Sanborn
Sponsored by Dr. Kimiko Tanaka
College of Health and Human Services

Abstract

This study examined college students’ attitudes regarding mental illness. A cross-sectional survey, The Community Attitudes Toward the Mentally Ill (Taylor & Dear, 1981), was provided to 74 students from a private university in the northeastern part of the United States to assess their beliefs about mental illness. The data gathered from this study revealed a large number of students had a more favorable attitude about mental illness. The findings in this study show a differentiation between male and female views. Some findings indicated a negative stance pertaining to mental illness. Remediation may need to be implemented on college campuses to counter these attitudes.
School Personnel Attitudes Towards Students Mental Illness

Stephanie Schramm
Sponsored by Dr. Kimiko Tanaka
College of Health and Human Services

Abstract

Schools are well trained to promote and support youth with mental health issues; however, one critical obstacle that could impede children from receiving the help they need is the presence of a stigma. This research study looks into the attitudes of the school personnel at a middle school in Upstate New York on children with Emotional Behavioral Problems (EBP). Thirty-eight participants completed the administered paper and pencil questionnaire. The questionnaire contained questions from the Attitudes about Child Mental Health Questionnaire (Heflinger, Wallston, Mukolo, & Brannan, 2014) which included a 5-point Likert Scale. The results of this research showed that the school personnel reported having a strong stigma towards children with EBP. This research lays the groundwork for looking at the relationship between stigma and help seeking and shows the need for developing interventions to reduce stigma within the school system.
The effects of religion or spirituality on depression and coping skills were examined among young adult (defined 18-25 year old) Caucasian, Marywood University students between the months of February and March 2015. Research has shown that having strong spiritual or religious backgrounds can be protective factors against depression and can also help people better cope with life stress. Due to the number of published studies that solely focus upon African Americans with parallel research ideas, this study was limited to Caucasians for means of comparison. Of the 30 participants who took part in this study, seven had diagnosed histories of depression, all of whom were in treatment for same. There was no statistical difference (P >0.05) between spirituality and religion on depression, however qualitative data from participants demonstrated belief that spirituality and religion assisted in coping with life stress.
Varying Stress Levels Between Single Mothers and Partnered Mothers

Alexandrea White
Sponsored by Dr. Patricia Weldon
College of Health and Human Services

Abstract

The purpose of this study is to determine if stress levels differ between women who are single mothers and women that are in a partnered relationship (having someone that they rely on in the parenting of their children). Forty-six mothers were surveyed from the Scranton Lackawanna Human Development Agency and the surrounding Scranton area. The mothers were surveyed using the Parental Stress Scale, which is an eighteen question Likert scale that touches on each point of stress in their lives (ex. time, energy, finances). In addition, a short open ended questionnaire was also given to collect demographic information. The return rates for the surveys were around 98% and an equal rate for each category is represented. The hypothesis of the research is that partnered mothers would have less stress then their single counterparts. This was founded to be true, as partnered mothers did have slightly less stress scores than single mothers.
Academic Barriers to Success for Refugee Students: A Pilot Study

Kimberly Witt
Sponsored by Dr. Kimiko Tanaka
College of Health and Human Services

Abstract

The purpose of this study is to explore and describe the barriers to academic success that refugee students face. The target population is refugees who have resettled in the United States, and the sample is Bhutanese refugees in a local community in Northeastern PA. The study will survey 25 middle and high school students about perceived barriers. The sampling strategy is availability and snowball sampling with help from Bhutanese community leaders. This study is relevant to social workers who want to a comprehensive view of the obstacles refugees encounter, and should also carry policy implications for better addressing the needs of refugee students.
Privacy and Security Risks of Emerging Smart Homes

Hussam Alaradi, Saud Binshuwaysh, & Rahaf Aloraynan
Sponsored by Dr. Ahmed Gomaa
College of Liberal Arts and Sciences

Abstract

The home environment has changed significantly in recent years from the typical traditional setting to a modern smart home environment. Today, it is possible to control appliances such as lighting, smoke detectors, entertainment units, security cameras, and monitoring devices from remote locations. While the concept of smart homes was conceived much earlier, at the start of the 20th century, the present advanced technology has made it possible to implement it. Together with the benefits achieved through the smart-home environment, the ease in accessing home information from remote places has also brought about risks. This paper discusses potential security risks imposed by the smart home environment followed by suggested design solutions and methodologies found in literature to minimize those risks.
Music Database
Raed Alayed
Sponsored by Dr. Ahmed Gomaa
College of Liberal Arts and Sciences

Abstract

Nowadays many people spend a lot of time researching about their favorite songs. They are trying to find their favorite songs by using the name of the songs, the writers, the albums, the artists, the score, and the company. This database helps people to find all kind of songs easily in one place. I used B-tree index in my project to decrease the time and cost of researching any query.
Privacy in Ubiquitous Computing: Location-Based Applications

Ibtisam Alghamdi
Sponsored by Dr. Ahmed Gomaa
College of Liberal Arts and Sciences

Abstract

Due to the rapid pace of technology development, people are more interested in using the ubiquitous computing systems and the different real-time applications that provide the desired information at the right time which facilitate their lives. Yet, this technology jeopardizes people’s privacy since most of these applications are location-based applications which use the users’ locations in order to serve them best, and allow intruders to exploit that information to harm the user. In this paper, I will discuss the ubiquitous computing as a concept, and more specifically, the location-based applications, the vulnerabilities of the current architecture for the location-based applications, and the future suggestions for more secured architectures that fill in the gaps in the current applications to preserve the user’s privacy. Lastly, I’ll shed light on how we can help in raising awareness among location-based applications’ users.
Cytochromes P450 Sequence Identification in the Purple Sea Urchin Genome

Nada Alghithi, Gary Stavish, Lyndsie Johndrow, & Robin P. Ertl
Sponsored by Dr. Robin P. Ertl
College of Liberal Arts and Sciences

Abstract

In Sea Urchins, there are approximately 128 unique cytochrome P450 (P450) genes that have been identified. P450s are mono-oxygenases involved in detoxification and steroid biosynthesis, although the reason for the number of P450s is not clear. It is shown that P450s present during embryonic development and they are differentially expressed. This raises the question of whether P450s are involved in specifying cell type during stem cell differentiation. This project seeks to make probes for in situ hybridization experiments studying the role of P450s in cell differentiation. Sea urchin embryos are ideal, as they are model organisms in developmental biology. Sea urchin embryos have been fully sequenced and have many molecular tools. They are easily reared and are transparent allowing the use of fluorescent probes in combination with confocal microscopy. The current study is to generate the probes using bioinformatics, comparing sea urchin sequences to known P450s.
Abstract

The database that I have implemented will allow customers to do a car search and identify the most up to date selection of new and used cars. The database uses unique indexes, which helps customers to find their need and wants easily and quickly. I built the database based on Entity Relationship Diagram (ERD), and that diagram is already normalized to the 3rd form. The database system utilizes primary key access allowing my customers to locate their desired car effectively at no cost. Finally, I have implemented my database by using Microsoft Access and it has 15 different queries to meet customers’ satisfaction.
Apple Pay Security

Sultan Aljehani, Nourah Alshoaebi, & Hamad Alruwaiti
Sponsored by Dr. Ahmed Gomaa
College of Liberal Arts and Sciences

Abstract

This paper aims to identify current issues and possible future challenges Apple Pay might encounter in term of security. Our goal is answer these issues and concerns that will aid Apple’s new product “Apple Pay”. This will be done by performing an analysis on the security model being used (tokenization) and share insights related to users concerns. Additionally, we will identify how Apple can leverage Apple Pay to gain a competitive advantage with the technology sector, and we will compare Apple Pay with other digital wallets. Moreover, we will discuss the problem with Apple Pay is a common issue that many new technologies face and that is one of acceptance.
Abstract

eHealth stores data in a central access location where information can be stored, retrieved, and accessed through network. It is a concern to organizations’ privacies that the data can be shredded. These concerns arise in case of data loss, weak data encryption, and weaknesses in infrastructure, and intrusion. As the issue increases in eHealth, it must overcome privacy and security issues in the eHealth system. The legislation includes HITECH, Identity theft legislation, and PCIDSS. Also, healthcare organizations would enhance PKI and PMI technologies to ensure eHealth. It is concluded that the eHealth has increased the quality and delivery of healthcare as well as performance of healthcare organizations.
Electronic Data Security Breaches and Solutions for Avoidance

Abdullah Alrabiah
Sponsored by Dr. Ahmed Gomaa
College of Liberal Arts and Sciences

Abstract
The report is examining the electronic date security breaches that are caused by system failure or weak security systems used by different companies and their effects that affected many people results of loss specifically the European Countries. In addition, the paper is articulating some solutions and methods to prevent such breaches from happening. The solutions presented in the paper came from credible confesses specialized in network security and privacy. More than 15 academic articles are used to support this paper.
How to Secure Big Data in Hadoop

Abdullah Alrumi & Hanouf Alshaimri
Sponsored by Dr. Ahmed Gomaa
College of Liberal Arts and Sciences

Abstract

This study is aimed to reveal how Big Data may be secured by using Hadoop which is generally known as an open source software venture. This paper talks about the issues and solutions for both Big Data and Hadoop in security matter. Big Data is a new breach of technological development that influences almost every sphere of human activity where it integrates with Hadoop safely by being aware of dealing with security.
XKMS

Abdulrahman Alshammari

Sponsored by Dr. Ahmed Gomaa

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Abstract

This paper presents a literature review on Extensible Markup Language Key Management Specifications (XKMS), types of XKMS, Public Key Infrastructure (PKI) development problems in XKMS, trust service solution, some experiments and results and the extension of XKMS in order to provide an advanced validation service. This literature review is summary of fifteen researches and articles XKMS.
Data Loss Prevention
Abdulrahman Alshammari & Manahil Albaqami
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Abstract

Data Loss Prevention (DLP) is an important problem that needs to be solved in many types of organizations. Many companies working on developing DLP in many aspects like accommodate the data together, make sure no one can steal our data, and security in general like encryption. These data loss prevention technologies are undergoing proof and examination from many within companies. This paper will introduce introduction of DLP, DLP challenges, DLP solutions and recommendations, and DLP elements that we should have to implement it within our organization to prevent losing our vital data accidently.
OC Donor Tracking for Musculoskeletal Transplant Foundation

Nourah Alshoaebi & Daniel Moderski
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Abstract

Current OC Donor File tracking at Musculoskeletal Transplant Foundation is a manual e-mail and spreadsheet based process between the quality assurance and graft matching departments. Our system will replace this error prone manual system with an Access database. The benefits of the database will be verified Donor Information with reduced tissue expiration mistakes because of a lack of communication between departments. It will provide a clear workflow by showing prior review steps to the people further down the chain. Another added benefit is to consolidate data from different systems into one central system. The Database has a reduced storage footprint by being in the 3rd normal form. Built in unique and multiple field indexes are used to provide more efficient data retrieval.
Cloud Computing and Security Issues

Areej Alyamim & Raed Alayed
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Abstract

Cloud Computing provides a platform that enables individuals and organization to perform variety levels of tasks such as, a user can access the cloud-based applications through the browser or any mobile application. Moreover, Use online storage space, adopting of business applications. Cloud computing applies to applications and data storage that delivered over the Internet or via the wireless technology. This research discuss the major security threats that can obstruct cloud and computing infrastructure; it also focuses on the security issues arising from the usage of cloud and what protection mechanism needs to be taken to resisting the attacks.
Proteomic Interactions in Yeast That Are Involved in Genome Integrity

Chris Brown
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Abstract

Cdc5 is a polo-like kinase identified in Saccharomyces cerevisiae. Cdc5 functions in regulation of many essential cell pathways including Meiosis, Mitosis, and Cytokinesis. A genome wide screen for physical interactors of Cdc5 identified Mps3 as a potential candidate. Our lab has confirmed this interaction using GST pull down and Co-Immunoprecipitation. Mps3 is a nuclear envelope protein involved in several chromosome functions such as sister chromatid cohesion, DNA damage repair, and telomere clustering. Mps3 is hypothesized to be involved in many of these processes through its association with many chromatin associated proteins. One of these chromosome associated proteins is Elg1 which functions in many of the same processes of Mps3. Htz1, a histone variant that is also involved in DNA damage repair, has been shown to physically and genetically interact with Mps3. Here we present data that Cdc5 and Elg1 also physically interact, and that Htz1 has a role in cohesion. In addition we investigate the possibility that both Elg1 and Mps3 are substrates of Cdc5 kinase activity.
Plan to Implement Awareness in Information Security

Taghreed Faydi
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Abstract

This research paper addresses one important solution to reduce cyber security problems and every organization should follow to ensure security. Organization should increase awareness level by implementing programs that help every individual recognize cyber threats and prevent damage before happening. It demonstrates that only computer professionals’ effort cannot prevent damage happening sometimes; therefore, protecting information and data can be achieved when both technical and socio-organization work together. In addition, it addresses implementing awareness programs by using an example of awareness plan from the literature and proposes a new ranking awareness system in information security that companies may depend on for better budget.
Employee Self Service

Shahd Hamid & Shwan Mohammed
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Abstract

Employee Self Service is a simple web application for local owned companies in Iraq. The system is developed using MySql web Server with PHP and HTML programming languages. The System will generate forms for employees to edit personal details, apply for leaves and vacancies, as well as track applications status. The system will query the database and generate reports for HR department to view requests made by employees and respond to them. Database tables are in the third normal form. User login/log out forms will be used to determine the authorization type for each user of the database. Md5() function will be used to encrypt the passwords in the database for security purposes.
Improving Efficiency in Iraqi Police Department Traffic Violations Using Database Systems

Saiban Hussein & Hayley Mericle Swingle
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Abstract

The Northern Iraqi Traffic Police Department currently uses state-of-the-art digital cameras to capture speeding automobiles. Approximately 700 images are taken a day. Current process are manual and do not allow for fast entry or retrieval of information. The text taken from the image would be inserted into a database system that would improve retrieval time for issuing ticketing violations. Using Oracle, this database contains six clustered B tree indexes, six tables, and numerous queries. Implementation of this database would generate higher revenue from saved labor costs in addition to a higher number of issued fines.
Identification of an Interaction between the Yeast Genes CDC5 and RAD24

Michael Legath
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Abstract

Cdc5 is a Polo-like kinase which is used in targeting and activation of Rho1p at cell division sites. Along with activation of Rho1p, it also functions in adapting DNA damage during stages of meiosis. Regulation of the shape of the nucleus, and expansion of the nuclear envelope are also primary functions of this kinase. Cdc5 along with another protein functioning in DNA damage repair, Rad24, is being studied in this project. Rad24 is used in the cell as a checkpoint protein which helps activate the DNA damage response. Both Cdc5 and Rad24 play a role in replication, genome integrity, and damage control in the cell. We hypothesize that Cdc5 and Rad24 genetically interact with each other. Our lab has generated a double mutant strain of Cdc5 and Rad24. This project investigates the viability of this strain.
Poverty in Iraq

Bashir Mahmood, Yousif Alharbiy
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Abstract

Poverty is often identified as a main obstacle to human development. It is also a powerful brake on accelerated progress toward a country’s development. For this reason, we create a database that examines the dynamics of poverty in Iraq. We are analyzing the fluctuations and rate of changes found in the data between the years: 2007 and 2012. The database, also examines the illiteracy and unemployment rates for 2012. Additionally, the database divides the country into provinces, and cities ranking the results of their levels. Our overall goal is to make this database into a simple search engine for anyone who is interested in getting this information from Iraq.
Longevity comparison between N2, klf-3, klf-2 genes in Caenorhabditis elegans

Alexis Maylor
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College of Liberal Arts and Sciences

A mutation in the Krüppel-like transcription factor (klf) 2 may decrease the life-span of Caenorhabditis elegans. In vertebrates, adipose tissue stores energy in the form of fat. Fat storage and utilization is essential for energy homeostasis, and its disruption is associated with metabolic syndromes such as type-2 diabetes and cardiovascular disease in humans (42% of the human disease genes have orthologous counterparts in C. elegans). The process by which fat storage is coordinated through positive and negative feedback signals is still poorly understood. The Krüppel-like transcription factor, klf-2 is part of family of transcription factors important in fat metabolism. We have found evidence that homozygous mutant klf-2 (ok1043) worms placed in M9 buffer devoid of food have a decrease in life-span compared to wild-type and klf-3 mutant (ok1975) worms. Our study demonstrates that Ce-klf-2, among its many other biological roles, may play a critical part in the development and maintenance of the normal life-span of C. elegans.
Abstract

Insuring web pages is an important demand for web designers. CAPTCHA is one of the methods that web designers utilize to insure web pages from spambots. The term CAPTCHA stands for “Completely Automated Public Turing Test to Tell Computers and Humans Apart.” This full form well defines the purpose of CAPTCHA. Actually, CAPTCHA is used to distinguish human from machine by generating tests only humans can pass. In fact, CAPTCHA has gone through several stages and enhancements. This research determines the different types of CAPTCHA and the advantages and the drawbacks of every type. Moreover, we will explore the enhancements that have been changed on CAPTCHA. Furthermore, we will explore other alternatives to CAPTCHA that can ensure and protect web pages from spambots.
Online Banking Security

Amal Reshidi and Mansour Alzahrani
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Abstract

Contemporary society has seen an increment in the number of banking transactions that are undertaken online. E-banking has proven to faster, cheaper and easier to undertake with the proliferation of the internet set at over 40.4% of the global population. Such high numbers have also aided application developers to come up with banking apps such as Google Wallet and Apple Pay. The quick adoption of consumer technology has created a platform for such endeavors to prosper. This paper explores this topic looking at how online banking security can be improved in order to protect private information and money being moved online.
Generation of CHL1-MYC Strain of *Saccharomyces cerevisiae*

Tylor Ricker
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**Abstract**

Proper sister chromatid cohesion is critical for proceeding through S-Phase as well as the rest of the cell cycle. The gene Chl1 has been shown to play an important role in proper sister chromatid cohesion and often interacts with other genes, such as cohesion establishment factor CTF7, and potentially the nuclear envelope protein Mps3. Mps3, in particular, has been shown previously to function in various roles of chromatin metabolism, such as sister chromatid cohesion, spindle pole body duplication, telomere clustering and anchoring as well as several other functions. Thus, potential interactions between Mps3 and Chl1 would be of great importance. In order to study potential interactions of the Chl1 gene, our lab attempted to develop a novel strain of Saccharomyces cerevisiae by way of high efficiency transformation of wild type S. cerevisiae with the Chl1 gene. This would create a strain of yeast that tags the Chl1 gene so that it can be used for multiple interaction assays.
Real Time Analysis of Expression Levels of Krüppel-like Transcription Factor (KLF) 2 in *Caenorhabditis elegans*

Samantha Rosencranz
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Marywood University

Abstract

The nematode, *Caenorhabditis elegans*, is used as a model organism when studying fat storage. Genes for fatty acid synthesis and metabolism have been conserved between humans, other mammals, and *C. elegans*. The ability for mammals to store and regulate fat is directly related to the organism’s fitness. In humans, excess fat storage can lead to obesity, which can cause adverse effects, such as diabetes and heart disease. The basic pathways for these diseases have been conserved between the nematode and humans. *Caenorhabditis elegans* contains homologs of human Krüppel-like Transcription Factors, KLFs. KLFs regulate the accumulation of lipids within the worms’ intestines and play a major role in adipogenesis. Our study examined the *Ce-klf-2* gene to determine its expression profile within the worm. The expression data of the *klf-2* gene was obtained through qRT-PCR using the comparative Ct method and employing the house-keeping gene, *ama-1*, as an internal control. Expression of *klf-2* in wild-type worms showed an up-regulation in gene activity in the early larval stages (L1, L2, L3) followed by a decrease in the L4 stage before a re-elevation in the adult stage. *klf-2* expression in later stages of larval development and in the adult indicate *klf-2* importance to the worm’s maturation, however further tests need to be performed to explain the abrupt decrease in *klf-2* expression at the L4 stage.
Identification and Annotation of Cytochromes P450 from the Purple Sea Urchin Genome

Gary Stavish
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Abstract

Cytochrome P450 (CYP), is a membrane bound enzyme primarily involved in detoxification processes (i.e. Removing toxins from the cell). Interestingly, Strongylocentrotus purpuratus (the Purple Sea Urchin) has over 128 unique CYP genes; yet the diversity of CYP is poorly understood. The overall goal of the project is to explore the possibility that CYP is involved in cell differentiation. The full genome of S. purpuratus has been fully sequenced and partially annotated. There are 160 CYP genes predicted based on sequence algorithms. To confirm the predicted genes, this study compares sequence alignment between those predicted genes and known CYP genes across numerous organisms. Using these gene sequences, future studies will construct probes to investigate gene expression in S. purpuratus embryos. If CYP is involved in specifying cell differentiation there should be a definitive pattern of CYP expression during embryonic development. Sea urchins are an ideal research organism because their embryos are transparent. This allows the use of fluorescent probes in combination with confocal microscopy to identify the pattern of gene expression during development. Understanding what specifies cell differentiation is important to efforts in regenerative medicine attempting to generate specific cell types from stem cells.
Abstract

A Customer Relationship Management (CRM) system is a repository of customer information that records all the contacts that a customer has with the institution. CRMs are essentially a database technology which maps customer’s relationship with the institution. The presented CRM database is formatted using normalized ER diagram, in which, each table is related to one or more table with primary key and foreign key. It has marketing and sales information received by customer and the customer’s response. It has product and contact history data, and has non-clustered index to faster retrieval of queries. It has clustered index on account detail (account type, account number) and customer detail (last name, address) for retrieve data based on range based queries.
Convergence on Campus: A Study of Campus Media Organizations’ Convergence Practices

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Insalaco College of Creative and Performing Arts

Abstract

Scholars disagree on how to define “media convergence,” but in the past 15 years, newsrooms have shifted toward convergence, and they’re looking to hire journalists who understand it. Many university journalism programs have updated their curricula to emphasize convergence. However, students often learn journalism best by doing it at campus newspapers, television and radio stations, or on web platforms. This paper asks: Are college media organizations practicing convergence? Researchers surveyed 142 campus media advisers to learn about convergence practices in campus newsrooms. Findings show that while half of advisers report their campus media organizations are practicing convergence, most are only practicing cross-platform publishing. Findings also suggest a correlation between campuses reporting converged media organizations and those reporting convergence-focused curriculums.
Factors Influencing Seasonal Influenza Vaccination Uptake Rate among Undergraduate College Students in Scranton, Pennsylvania

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Center for Interdisciplinary Studies

Abstract

College students who do not get vaccinated annually for influenza have the potential to spread the influenza virus to other students. The purpose of this study was to determine if a significant relationship existed between the vaccination status of college students and their knowledge of influenza; their perceived risk of the disease; and, their perceived benefit from receipt of the vaccine. The theoretical basis used in this study was the Health Belief Model, which predicts that a person will take steps to impact her/his health status if s/he believes that s/he are: susceptible to the disease; the disease is severe; action would reduce susceptibility; benefits of the action outweighs risks; and, the action is easy to complete. In this cross-sectional study, 5,589 undergraduate students from two universities in Scranton, Pennsylvania were asked to participate in an online survey to examine influenza vaccine uptake rate, knowledge, risk of disease, and benefit of immunization. From an initial 827 students (14.8%) whom responded to the survey, 226 (27.3%) were excluded from the analysis. From the remaining 601 participants, 229 (38.1%) reported receiving the seasonal influenza vaccine during the 2013-2014 influenza season. Results of the analysis generated a logistic regression model that found only perceived benefit to be a significant \((p < .001)\) predictor of vaccination in 79.6% of the cases, but vaccination was 3.01 times more likely for every point increase in perceived vaccine benefit score. Additional logistic regression analysis found \(that living arrangement, age, and degree major also predicted vaccination status at p < .05 level in 62.4% of cases that may help to reduce\) the barriers in receiving the vaccine and better communicate the health benefits among college students.
Struggling Readers and Graphic Novels: Exploring the Effect of Text Format on the Reading Experience of High School Students

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Students who struggle with reading face significant comprehension challenges when engaging traditional, linear prose. Studies have developed techniques to support comprehension using visually based organization tactics. Instead of applying this visual organization to supplemental tools to support comprehension, I explored the effect of applying a visual organization to the actual text selection and monitored the effect of that change in text selection on student perceptions of their reading comprehension and academic success. I measured student perceptions of their own reading comprehension and academic success through pre and post unit surveys, which utilized a Lickert scale response system. These surveys buttressed a graphic novel unit typically presented in three upper grade level co-taught literature classes at a rural high school in a mid-Atlantic state, and included students with a range of academic and reading strengths. Results that indicated students who identify as struggling readers that perceived an increased success in their own reading comprehension implied that graphic text format could improve reading comprehension of some struggling readers, and further research that measures differences in actual reading comprehension between traditional and graphic text is needed. Teachers of both special education and general education on the high school level in reading and literature classes could benefit from the results of this study as these results suggest that it was beneficial for high school level literature classes to incorporate graphic novels in their curriculum to encompass the abilities and strengths of all students.
The Relationships between Perceptions of Feedback Utility, Procedural Justice, and Quality of Teacher and Supervisor Interpersonal Interactions in Teacher Evaluation

Lisa J. Schumacher
Sponsored by Dr. Kathleen Ruthkosky
Center for Interdisciplinary Studies

Abstract

This cross-sectional correlational study considered teacher evaluation reform efforts by analyzing anonymous survey responses from 43 teacher evaluation participants regarding their perceptions of feedback utility, procedural justice and teacher/supervisor relationship quality. Results showed significant positive correlations between perceptions of procedural justice and both feedback utility and relationship quality. Perceptions of procedural justice were found to be significant in terms of predicting feedback utility. This study supports the literature that indicates positive relationships between procedural justice and both feedback utility and relationship quality but contradicts research findings that highlight the importance of the relationship context in performance appraisal. The lack of any negative teacher evaluations warrants exploration into other factors that might impact a supervisor’s capacity to deliver unsatisfactory teacher ratings.