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Public Health Practice
Experience
Poster Presentation Session

Abstracts

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SURVEY DEVELOPMENT FOR FORT WORTH/DALLAS BIRTHING PROJECT

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Site Supervisor: Kim Parish Perkins

The Fort Worth/Dallas Birthing Project (FWDBP) is a community-based organization that has a goal of reducing the infant mortality rates in Tarrant County. The FWDBP has two different programs: Aintie Tia Program and SisterFriend Program. In both programs, the women of the FWDBP are trying to increase the knowledge of the participants. However, the FWDBP did not have a way to measure how much the pregnant women in their program were actually learning. An entry survey and an exit survey were developed to correct this issue. The entry survey can be used to personalize the content the participants are taught. The exit survey can be used as a test to ensure that the participants leave with the required knowledge. A comparison between the two surveys can be used to show an increased of knowledge. Proof of an increase in knowledge can be used to gain more funding.

TRENDING AIRCRAFT DAMAGE EVENTS

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Trending is embodied in a safety program known as “Sigma Airline Damage Prevention” (SADP). It is part of a suit of Safety and Quality Management System to ensure continuous improvement in the Company’s quality standards, while providing efficient and reliable customer service. Strategies to prevent damage include investigation, data trending and implementation of safety initiatives in training and logistics. Focus areas are Foreign Object Damage, Slide Deployments, Two-Bar Disconnects and Wildlife Strike Mitigation. Maintenance personnel is duty-bound to sent administrative messaging report on any damage event, utilizing “Notification and Investigation Reports” system. Based on investigative data and trends identified, SADP effectively minimized severity and frequency of damages. Damage events are reported daily and stored in “Corporate Event Reporting System”. Intern collaborates with site supervisor to retrieve data and design charts that give visual summary information on the events. Management then makes strategic policy decisions to reduce or eliminate the problem.

**THE SISTER FRIEND PROGRAM: A COMMUNITY- BASED INTERVENTION TO
REDUCE BARRIERS THAT AFFECT BIRTH OUTCOMES.**

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The Fort Worth/Dallas Birthing Project is a community-based organization participating in the effort to reduce infant mortality rate in Tarrant County. Their “SisterFriend” Program matches volunteers called “SisterFriends” with essentially black or third generation Hispanic pregnant women called “Little Sisters”, usually in groups of ten creating a “Baby Bunch”. While together, they learn about childbirth education, breastfeeding, nutrition, baby care, birth control, and sexually transmitted diseases. SisterFriends provide to Little Sisters the social support they need for better pregnancy outcomes. The objective of our project was to assess the impact of the intervention on the participants. Over 250 women and babies have been followed for 1 year after birth since 1998. More than 70% of the babies were born by vaginal route with an average weight of 6lbs13oz; less than 3% were premature and only 1 death at the age of 2 months due to Sudden Infant Death Syndrome (SIDS).

**PROSTITUTE DIVERSION INITIATIVE: UNDERSTANDING THE NEEDS OF
NEIGHBORING COMMUNITIES**

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Site Supervisor: Sergeant Louis Felini

The surrounding areas of four truck stops within Dallas have been identified as areas of high crime, and there are greater than 800 prostitutes who are known to work these areas. Not surprisingly, the wholeness indexes of the neighborhoods surrounding these truck stops are among the lowest observed within the city of Dallas. Due to the knowledge of these statistics, the Dallas Police Department has spearheaded an innovative community-based collaborative aimed at removing prostitutes from the street, and giving them the opportunity to enter treatment programs in lieu of jail time. Key participating agencies have requested a community needs assessment to be performed on the neighborhoods surrounding these truck stops. To date, the project has established baseline demographic characteristics of the targeted neighborhoods, outlined the methods for which to collect survey data, and formulated a comprehensive survey.

**THE PROSTITUTION DIVERSION PROGRAM: A COMMUNITY-BASED
COLLABORATIVE INITIATIVE OFFERING ALTERNATIVES TO
INCARCERATION**

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Site Supervisor: Sergeant Louis Felini

The prostitution problem in the southern sector of the City of Dallas is severe and arrests have resulted in only a temporary solution. Upon release from jail, prostitutes return to the only environment they know how to survive in, an environment of drug dependency, sexual/physical abuse, and continued victimization. The Prostitute Diversion Program (PDP) is a collaborative effort spearheaded by the Dallas Police Department and involving Parkland Hospital, Dallas Health Department, Dallas City Attorney's Office, Dallas DA's Office, and over 70 social service agencies and faith-based organizations. The goal of PDP is to give prostitutes an opportunity to gain information and access to various physical/mental health services and social services as an alternative to continued involvement in the criminal justice system and/or further victimization. The program places these victims into an intensive 45 day treatment program and after-treatment care to include out-patient counseling, job placement and housing. In an effort to quantify the impact of this program, I created a centralized database in Microsoft Access to house the data collected on-site, inputted data at each night of initiative, and utilized data management skills to ready data for anticipated epidemiologic analysis.

**INVESTIGATION OF CURRENT LEGISLATION AND REGULATIONS ON THE
RESTRICTIONS OF LEAD CONTENT IN ALL CHILDREN'S PRODUCTS,
SPECIFICALLY CHILD CAR SEATS**

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The Consumer Product Safety Commission issues the guidance to manufacturers and importers to facilitate the protection of children against exposures of lead in any consumer products. Under the Code of Federal Regulations (1978), Title 16, Volume 2, products' surface coatings can not exceed the limit of more than 600 ppm (dry weight), or 0.06% of lead or lead-containing paint. The Toxic-Free-Legacy Coalition released "The Consumer Action Guide to Toxic Chemicals in Toys", which concluded 17% of the 1,200 children products, contained lead levels exceeding the federal allowable level. Currently, H.R. 4040 Consumer Product Safety Modernization Act is in the legislative process and will begin to diminish the amounts of lead (ppm) that will be allowed over the next four years. The state of Washington is setting the highest standard exceeding the federal legislation with their Children's Safe Products Act of 2008, for which the standard of allowable lead will only be 40 ppm.

BACKGROUND AND METHODS OF 2008 FORT WORTH COMMUNITY NEEDS ASSESSMENT

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The City of Fort Worth Public Health Department administered an extensive community needs assessment (CNA) in 2008, to re-evaluate the city's population surveyed in 2003. Surveys were chosen as the preferred method of collecting data through the collaboration between community partners and city department personnel. Since 2003s CNA, additional questions have been added to the survey instrument in order to capture emerging issues and conditions. Census data taken from the Fort Worth geographical information system was used to create the sampling frame and over 3,000 interviews were conducted in person by public health professionals and city health officials to a randomized sample of the population. To ensure an extremely reliable representative sample of Fort Worth's population, which is estimated at 603,337 (2005, US Census), this model was used and a vast number of surveys were completed. Analyses of these data are utilized to ascertain the priorities and direction of the local public health department and pillar activities of various local health and social service agencies.

EXPERIENCE IN HOSPITAL INFECTION CONTROL

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The University of Texas Southwestern Medical Center provided an excellent site to observe and learn about the role of the Infection Control department. St. Paul University Hospital was the primary setting for this practice experience. The goal of a hospital infection control department is to limit the spread of infectious diseases among the patient population and eliminate the occurrence of hospital acquired infections. Methicillin-resistant *Staphylococcus aureus*, Vancomycin resistant *Enterococcus*, and *Clostridium difficile* spores pose the largest threat to the hospitalized population and are of primary concern for the infection control practitioners. Another important aspect of the Infection Control department is the investigation of possible cases of catheter associated urinary tract infections (CAUTI), ventilator associated pneumonias (VAPs) and hospital acquired blood stream infections (BSI). The goal of this practice experience was to learn the various aspects of the department and participate in a meaningful way to the daily duties.

**REVIEW OF STUDIES OF CHIROPRACTIC COMPLETED TO PUBLICATION
AND/OR INITIATED DURING PRACTICUM EXPERIENCE AT PARKER
RESEARCH INSTITUTE**

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Parker College of Chiropractic
Site Supervisor: Ronald Rupert, MS DC

Parker Research Institute, a component of Parker College of Chiropractic in Dallas, TX, strives to produce sound research at the local, national, and international levels addressing health and wellness. Of particular interest to the institute is research focusing on pain relief, improved function, and the chiropractic profession. Using data previously gathered, three studies generalizing chiropractic student intention to promote general wellness, injuries sustained by chiropractic students, and the health status of chiropractic patients as compared to general medical doctor patients were brought to completion and sent to publication. Additionally, the 2006 National Health Interview Survey is being used to produce a new study with a primary objective of comparing compliance to health promotion recommendations in chiropractic patients and general medical doctor patients.

**ELIMINATING CANCER DISPARITIES IN SOUTH DALLAS THROUGH
COMMUNITY BASED RESEARCH**

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Site Supervisor: Dr. Kathryn Cardarelli

South Dallas has the highest rates of cancer mortality in the State of Texas. The Dallas Cancer Disparities Community Research Coalition was developed in order to address and eliminate cancer disparities in South Dallas. Through community based participatory research (CBPR), community focus groups, town hall meetings and collaboration with investigators from the Center for Community Health (CCH); development of a cancer prevention model will be created for the community. Additional funding will be provided in order to implement a prevention intervention program and a center for health promotion in the South Dallas community.

**THE IMPACT OF ENABLING AND PREDISPOSING FACTORS ON ACCESSING
PREVENTIVE MEDICAL CARE AMONG US CHILDREN**

Ka-Ming Lo

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To measure the factors which associated with whether a child in US has adequate preventive care, Anderson's Socio-Behavior Model is an organized and well defined reference for this research. A cross-sectional study was used to examine whether different predisposing, enabling and need factors, as mentioned in Anderson's model, significantly affect accessing preventive care among U.S. children. Descriptive statistics showed 63924 out of 85389 (74.86%) subjects have indicated having adequate preventive care. After stratifying by the 4 regions, logistic regressions shown the 4 regions have the following significant factors: age, insurance, poverty level, having a personal doctor or nurse, and currently need medicine (All $P < 0.05$). Education level is significant in NE, MW, and S ($P < 0.05$). Family size (including number of children and adults), gender, ethnicity, and limited abilities to do things are significant in W (All $P < 0.05$).

**NORTH TEXAS HEALTHY HEART STUDY: CUMULATIVE PSYCHO SOCIAL
STRESS AND CARDIOVASCULAR INFLAMMATORY MARKERS.**

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The purpose of this study was to create one cumulative measure (index) for various psycho social factors and to determine its association with inflammatory markers of cardiovascular diseases (CVDs). Utilizing cross sectional data from North Texas Healthy Heart study I (NTHHS-I), a psycho social cumulative index was created using factor analysis method. This index included three psycho social measures namely depression, stress and aggression. Multiple logistic regression methods were used to determine association between the index and inflammatory markers of CVDs namely Calcium score, Interleukin 6, C - reactive protein and fibrinogen. After adjusting for traditional risk factors of CVDs, our results did not find any significant association between the index & CVD markers. Additional research is necessary to determine the association between the index and various health behaviors. Our report includes importance of developing cumulative index, method of its development and its potential utilization in clinical practice.

**PRELIMINARY INVESTIGATION: A STUDY OF DEPRESSIVE SYMPTOMS
AMONG PERINATAL WOMEN**

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This study examines relationships between depressive symptoms and trauma among perinatal women, age 21 to 45, at UNTHSC or JPS Health Network OB clinics. Depressive symptoms were assessed using the Edinburgh Depression scale (EDS). Subjects reported trauma history with a novel 76-item checklist. The reliability coefficient was 0.863 for the EDS. Of the 57 women interviewed to date, 40% were White, 43.9% Hispanic, and 15.8% Black. The EDS scores are not related to the number of traumas reported. EDS scores varied by race (F 4.106, 2, p=0.022) with highest scores among Black women. Trauma scores were not related to race, but differed by clinic (marginally significant p=0.056), while EDS scores did not. Age was not related to EDS or trauma scores, but item 10 on the EDS (thoughts of harming oneself in past 30days) was significantly related to the trauma item 'ever tried to kill yourself' (F 11.563, 1, p=0.001).

EFFECT OF ALCOHOL ON ACETAMINOPHEN INDUCED HEPATOTOXICITY

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Acetaminophen (paracetamol) is a commonly used over-the-counter (OTC) drug for the relief of fever, headaches, and other minor pains. Although acetaminophen has been considered as one of the safest analgesics, animal studies showed that interaction between alcohol and acetaminophen could cause serious liver injury. Given the fact that both alcohol and acetaminophen are commonly used in the US general population, there is health concern regarding of alcohol-drug interactions. Animal studies have shown that the toxicity of acetaminophen arises as a consequences of the metabolic activation of the drug by cytochrome P-450 system to reactive metabolite.

To study the acetaminophen- alcohol interaction and their hepatotoxic effect, we used PubMed to search the articles exploring metabolic interaction and risk factors associated with that. Review showed potential research areas or focuses should be on developing a dose-response relationship between consumption of alcohol/acetaminophen and the hepatotoxicity risk, and explore any possible existence of biological threshold.

**MEALS ON WHEELS DIABETIC MEDICAL SOCIAL WORKER
RESEARCH PROJECT IN TARRANT COUNTY**

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Meal on Wheels (MOW) provides meals five days a week to elderly and disabled residents living in Tarrant County, Texas. In 2007-2008 the organization was awarded for the second continuous year a grant from United Way to help improve the health of diabetics being served through MOW. This year (2007-2008) the project has focused on possible observable health improvements medical social workers may provide to this specific population by analyzing and assisting with unmet needs. A total of 112 individuals participated in the study; data from 100 of these participants will be analyzed in August, 2008 upon the completion of the project. The research consisted of collecting baseline clinical and geriatric testing data. Overall the visits, primary and secondary, continue to provide insight into potential factors in family, home, and situational dynamics of the participants that could ultimately interrupt diabetic maintenance.