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Corcino, A. L., Cordero, A. P., Cordova, M. J. C., Curay, A. P., Daguiro, M. A. N., Dayanghirang, E. H., Dela Cruz, Y. J., Dela Victoria, F., Deomampo, K. L., Doce, R. III., and Domingo, C.

COLLEGE OF MEDICINE | 2017

Gout is an inflammatory arthritic disorder caused by hyperuricemia. Hyperuricemia pathologically defined as a condition of serum uric acid level of more than seven mg/dl. Bermuda grass (*Cynodon dactylon*) was known to possess anti-inflammatory properties due to the presence of flavonoids. Specifically, these flavonoids have anti-arthritic properties due to its capacity to suppress xanthine oxidase, an enzyme necessary for the synthesis of uric acid. The researchers focused on *C. dactylon* aqueous decoction and determined its acute toxicity dose and effective dose (ED50) in the hope of making it an alternative to lower serum uric acid level. Six healthy female mice were used in determining the acute oral toxicity dose. The first groups of three mice were given a single dose of 2000 mg/kg and were observed for 14 days. Their weight, behavior, feeding, activity and appearance were monitored daily. There was no mortality noted and thus, the researchers gave the other group of three mice the single dose of 5000 mg/kg. This was the highest dose to be given as per OECD guidelines. Same parameters were monitored for 14 days, and no mortality was noted again. Data suggest that *C. dactylon* aqueous decoction was non-toxic. Sixteen male and female rabbits were used to determine the approximate effective dose. A 30 mg/kg of pyrazinamide was given to the rabbits for 14 days to induce hyperuricemia. Eight test doses were administered to the rabbits for nine days, The AED was between 63.1mg/kg and 251.19 mg/kg.

Keywords: *bermuda grass, acute toxicity, hyperuricemia, Cynodon dactylon, uric acid*

In Vitro and In Vivo Comparative Study of the Antibacterial Activities of Panyawan

Agnayo, D. K., Alaba, L. K., Alay, M. F., Alegro, H. J., Alfonso, M. O., Ambrad, K. J., Andales, C. D., Aniñon, D. L., Aquino, M. A., Araneta, T. S., Babac, A. P., Bandong, S. D., and Barlis, N. A.

COLLEGE OF MEDICINE | 2017

Death from antibiotic-resistant organisms would be more than the current death from cancer come 2050. In the Philippines, 38% of nosocomial infections are caused by methicillin-resistant *Staphylococcus aureus*. Panyawan (*Tinospora crispa*) containing berberine, is active against *Staphylococcus aureus*. This study was a randomized single-blinded experimental study, compared the in vivo and in vitro (minimum inhibitory concentration and zone of inhibition) antimicrobial property of panyawan extract and mupirocin against methicillin-resistant *S. aureus*. Thirty guinea pigs were randomly assigned to three groups. Guinea pigs were inoculated with methicillin-resistant *S. aureus*, following the incision wound model, and were subsequently treated with: panyawan extract formulated into an ointment (treatment group), mupirocin (positive control group), and petroleum jelly (negative control group). The wound of each guinea pig was then swabbed and cultured at Day 1, 5, 10, and 14. Results showed a significant difference between the antibacterial activities, in terms of mean zone of inhibition and the mean post-treatment quantitative methicillin-resistant *S. aureus* bacterial count among the three groups. The positive control group had the greatest zone of inhibition and least mean bacterial colony and bacterial count (17 mm, 0, 625) followed by the treatment group (10 mm, 1090, 1805) and the negative control group (6 mm, 2160, 2218). There is a significant difference between the antibacterial activities, in terms of mean zone of inhibition and the mean post-treatment quantitative methicillin-resistant *S. aureus* (MRSA) bacterial count among the three groups, with mupirocin having superior antibacterial activity followed by *Tinospora crispa*, and lastly petroleum jelly.

Keywords: *panyawan, methicillin-resistant, Staphylococcus aureus, berberine, Tinospora crispa*

Antiangiogenesis and Antioxidant Effect of Guyabano (*Annona muricata* Linn.) Ethanolic Leaf Extracts Using Chick Embryo Chorioallantoic Membrane Assay and 2-2, -Diphenyl-1-1-Picrylhydrazyl Assay

Torralba, H. L., Trangia, K. C., Tuble, T. T., Usman, F. J., Valderosa, J. R., Valenzuela, M. K., Vargas, D. K., Villareal, K. A., Villaroya, M. A., Wee Eng, A. E., Yee, G. M., Yting, S. M., and Zamoras, A.

COLLEGE OF MEDICINE | 2017

Cancer ranks among the leading causes of death worldwide. Death is caused by the rapid growth of tumors that leads to the metastasis of the neoplasm. The process is dependent on angiogenesis, which also provides nutrients to the tumor cells. These can potentially be combated by acetogenins found in plants of the Annonaceae family. This study investigated the antiangiogenic and antioxidant properties of the *Annona muricata* ethanolic leaf extract using chorioallantoic membrane and 2-2, -diphenyl-1-1-picrylhydrazyl assays. For the chorioallantoic membrane assay, 130 duck eggs at Day 0 were procured from a single breeder. The eggs were randomly assigned to 13 treatment groups, and 0.1 ml of an assigned treatment was administered. The different treatments were: positive control (retinoic acid), zero control (no treatment), negative control (distilled water), 100%, 75%, 50%, 25%, 5%, 3%, 1%, 0.5%, 0.1% and 0.01% of the leaf extract. For the 2-2, -diphenyl-1-1-picrylhydrazyl assay, the same extract concentrations used in the chorioallantoic membrane assay were processed through a Pasco UV/VIS spectrophotometer to measure their percent inhibition of oxidation. Results of the chorioallantoic membrane assay showed that *A. muricata* leaf extract was able to inhibit angiogenesis compared to negative and zero controls and was statistically comparable to the positive control. For antioxidant activity, the leaf extract showed free radical scavenging activity qualitatively, though not at par with the ascorbic acid reference. Therefore, *A. muricata* ethanolic leaf extract possesses antiangiogenic activity at 0.1% and 0.01% comparable to retinoic acid and less anti-oxidant activity compared to ascorbic acid.

Keywords: *Annona muricata*, antiangiogenesis, antioxidant, ethanolic, cancer, chick

Antiangiogenic Activity and Cytotoxicity of *Persea americana* (Avocado) Fruit Extract

Galia, J., Gundaya, A. K., Jardinel, G. A., Gumarang, J., Jucar, A. A., Julao, F. A., Hinggo, J. F., Fernandez, C. D., Flores, K. M., Hadjiula, A., Gomez, P., Guibone, J., and Gamao, R.

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Angiogenesis is one of the hallmarks of cancer and is required for malignant transformations of solid tumors. Current cancer approaches include antiangiogenic drugs either alone or in a combination of other cytotoxic agents which may be too expensive or have other undesirable side effects. The need for a newer, cost-effective, and a non-toxic alternative is timely. *Persea americana* fruit has quercitin that inhibits angiogenesis through inhibiting VEGF-R2 activation and suppression of the AKT/P70S6K/mTOR-mediated angiogenesis signaling pathways that can prevent malignant transformation of tumors. This study determined the antiangiogenic activity and cytotoxicity of the 5%, 10%, 25%, and 50% concentrations of *P. americana* fruit extracts using Chorioallantoic Membrane (CAM) and Trypan Blue Cell Viability (TBCV) assays. The CAM assay result revealed a dose-dependent decrease in the number of blood vessels when treated with *P. americana* fruit extracts. LSD Test results showed that the 5% extract, 10% extract, 25% extract, and 50% extract have significant antiangiogenic activity compared to the negative control. However, only the 50% extract is comparable with the positive control. In addition, TBCV assay results showed that the 5% extract, 10% extract, 15% extract, and 50% extract are significantly cytotoxic in vitro. Lesser number of blood vessels formed when treated with higher concentrations of *P. americana* fruit extract. Different concentrations of *P. americana* fruit extracts are cytotoxic on human peripheral blood lymphocytes in vitro based on the very low percentage of live cells after 24 hours of treatment.

Keywords: *Persea Americana, avocado, fruit extract, antiangiogenic, assay*

Approximate Effective Dose (AED) and Median Effective Dose (ED50) of Cogon Grass (*Imperata cylindrica*) Water Extract in Reducing Formalin-induced Inflammation among Rat Models

Jumilla, J. E. II, Jurilla, J. R., Kedtag, J., Labang, S. C., Lanoza, J. M., Legarde, E. Jr., Leoncito, D., Lu, R. J., Lumongsod, H. G., Maadil, M., Macareg, R., Macarongon, F., and Macheca, R.

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Inflammation is known to a double-edged sword. It helps in the patient's healing process but it can become an underlying cause in diseases such as in cardiac atherosclerosis. Cogon grass (*Imperata cylindrica*) is a common weed growing abundantly in many parts of the globe. This study sought to expand the current understanding of the effectiveness on cogon grass water extract use by determining its approximate effective dose (AED), median effective dose (ED50) and how ED50 compares with doubling the dosage when given. In the experiment, 46 albino mice were used: 14 rats were for AED, 24 rats for ED50 (median/ middle effective dose) and eight (8) rats in comparing the ED50 and its double dose effect. Varied dosages of the Cogon extract (Dose 1 - 1mg/kg, Dose 2 - 3.98mg/kg, Dose 3 - 15.84mg/kg, Dose 4 - 63.10mg/kg, Dose 5 -- 251.2mg/kg, Dose 6 - 1000 mg/kg) were applied to the rats for seven days. Inflammation on the rat paws was observed from Day one to Day seven. Vernier caliper method was to measure inflammation on rat paws in millimeters. Results showed that the AED has a lower and an upper limit of 3.98 mg/kg and 15.84 mg/kg. The ED50 has a value of 15.85 mg/kg with a corresponding significant reduction on the inflamed paw in duration. When comparing the ED50 to doubling the dosage, no significant difference in its anti-inflammatory effect was noted.

Keywords: *ED50, Cogon Grass, Imperata cylindrica, rat models, inflammation*

Effect of Vitamin D and Omega-3 on Lipid Profile of Hyperlipidemia-induced Female Rabbits

Enriquez, J. K., Espinosa, L., Estomata, N. R., Estores, K., Eullaran, J., Flores, J., Galo, C. J., Garces, D. F., Genota, C. M., Guarra, I. P., Guevara, M. D., and Guiomala, R. A.

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Hyperlipidemia is prevalent in over half of the Philippine population. While Atorvastatin is considered to be the gold standard in lowering lipid levels, this does not close the possibility for the search of other better alternatives. Vitamin D and Omega 3 are selected due to their reductive effects, greater availability and high safety indices. This study determined whether a combination thereof is better than all of the three aforementioned agents. This study utilized 20 hyperlipidemia-induced rabbits (*Oryctolagus cuniculus*) as test subjects which received egg yolk for 44 days and were further grouped into five experimental groups—Treatment A: Negative Control Group, Treatment B: Positive Control Group, Treatment C: Vitamin D alone Group, Treatment D: Omega 3 alone Group, and Treatment E: Vitamin D and Omega 3 Group. The lipid profile results reflect that in a 30 day period the reduction were significant in all blood lipid components for all treatment groups, and that the efficacies of Vitamin D and Omega 3 are nearby on par with Atorvastatin. However, combining Vitamin D and Omega 6 do not impart a consistent nor marked greater effect than when taken individually.

Keywords: *hyperlipidemia, lipid profile, rabbits, Atorvastatin, Vitamin D, Omega 3*

Wound Healing and Antibacterial Properties of Pansit-pansitan (*Peperomia pellucida*) Formulated Ointment Against Methicillin-sensitive *Staphylococcus aureus*

Clapis, L. L., Brieta, M., Briones, N., Caingat, D., Canacan, S., Candelario, M. A., Capol, T., Carbungco, B., Cariño, J., Ceniza, Q. M., Chan, K. C., Cojo, C. J., and Libago, M. R.

COLLEGE OF MEDICINE | 2017

Pansit-pansitan (*Peperomia pellucida*) is a fleshy tropical herb used in traditional medicine in treating wound infections. This study determined the wound healing, and antibacterial properties of the Pansit-pansitan formulated ointment against Methicillin-sensitive *Staphylococcus aureus* (MSSA). Zone of Inhibition (ZOI) using the Kirby-Bauer Method and Minimum Inhibitory Concentration (MIC) using the Broth Dilution Method of *P. pellucida* extract was performed. A double-blinded randomized controlled trial of Pansit-pansitan (*P. pellucida*) formulated ointment on 30 rats, 10 for the ointment base as a negative control, 10 for Pansit-pansitan (*P. pellucida*) formulated ointment and 10 for positive control of Mupirocin ointment was used. These treatments were applied to full-thickness vertical skin incision on the dorsum of rats for seven days. Bacterial growth in the wound was qualitatively analyzed, and wound contracture was measured at the midpoint of vertical incision length. The MIC for *P. pellucida* was noted at 12.5%. The ZOI of 12.5% concentration of *P. pellucida* ointment showed no significant difference from the ZOI of mupirocin suggesting that the two interventions are comparable in their inhibitory activity and antibacterial effect against MSSA. Results also showed that the mean percentage of wound contraction between mupirocin (positive control) and *P. pellucida* formulated ointment had no significant difference suggesting that the wound reduction effect of mupirocin (positive control) and *P. pellucida* formulated ointment was the same on Day seven of the experiment. Data suggested that *P. pellucida* formulated ointment has potential antibacterial and wound healing properties against MSSA similar to that of mupirocin.

Keywords: *Peperomia pellucida*, pansit-pansitan, antibacterial, methicillin-sensitive, *Staphylococcus aureus*

Effect of Corn Silk (*Stigma maydis*) extract on the Ear Thickness and Histopathologic Evaluation of Formaldehyde-induced Atopic Dermatitis-like Disease in Swiss Albino Mice (*Mus musculus*)

Romancap, J., Roque, J. D., Rosales, N. N., Rubinos, M. G., Sabanal, G. D., Sabino, A. K., Samikanu, L. B., Segura, R., Seredrica, K., So, A. K., Soneja Jr., R., Sultan Batao, A., and Tan, S.

COLLEGE OF MEDICINE | 2017

Atopic dermatitis imposes a high economic burden, with out-of-pocket costs and overall expenses similar to those treatment of asthma. To help combat this problem, the researchers explored the effect of corn silk extract on atopic dermatitis-like disease induced on Swiss albino mice. Corn silk was found to be rich in allantoin, which is used in a variety of topical pharmaceuticals and cosmetics for skin care due to its keratolytic, moisturizing, soothing, and anti-irritant properties. This study employed a double-blind, randomized control trial experimental research design and utilized a stratified systematic sampling technique. Corn silk extract was obtained by maceration and rotary evaporation. Thirty healthy male Swiss albino mice weighing approximately 10-25 grams were used in the study. The mice were randomly divided into three groups with 10 mice per group: negative control group (saline solution), positive control group (hydrocortisone), and experimental group (10% corn silk solution). Formaldehyde was used to induce atopic dermatitis. Ear thickness was measured at the 1st, 24th, 48th, 72nd, and 96th- hour post application of formaldehyde and after treatment for two weeks. The specimens were collected from the skin of the ears and were examined by a pathologist. There was no significant difference between the positive control (hydrocortisone cream) and the experimental (corn silk extract) groups in both the mean ear thickness and histopathologic evaluation. An observable difference between the mean ear thickness of the experimental and negative control (normal saline solution) groups was noted.

Keywords: *Corn silk, Stigma maydis, albino mice, Mus musculus, atopic dermatitis*

Potential Hepatoprotective Effect of Alugbati (*Basella alba linn*) Leaf Aqueous Extract on Isoniazid, Rifampicin, Pyrazinimide-Induced Hepatotoxicity of Female Norway Rats (*Rattus norvegicus*)

Tallo, K. M., Ezra, J., Singco, A. M., Quinto, L. M., Soriano, E., Selvido, I. V. J. M., Rivero, N. K., Singh, H., Reyes, R. M., Reyes, S. A., Rala, K., Santamaria, R. R., Shanmugam, L., and Sacay, V.

COLLEGE OF MEDICINE | 2017

Multiple chemotherapeutic agents that are taken together are used for the Directly Observed Treatment program (DOTS) for treatment of tuberculosis. While these are effective, reports suggest that liver damage can happen in the long run. Alugbati (*Basella alba* L.) has been shown to have hepatoprotective potential. This study then explored this finding and tested it against isoniazid, rifampicin, and pyrazinamide-induced hepatotoxicity in female rats. It utilized a five-group pre-test and post-test experimental research design with six rats each. Group I, a negative control group with Isoniazid, Rifampicin, Pyrazinamide (HRZ) induction. Group II, a positive control group with HRZ induction, plus ursodeoxycholic acid (80 mg/kg. Group III, with HRZ induction plus alugbati extract (125 mg/kg). Group IV, with HRZ induction plus alugbati extract (200 mg/kg). Baseline ALT was measured prior to treatment and re-measured after 35 days. There was a significant change in the ALT levels across different treatment groups, regardless of the drug or extract that was given to them. Data also showed that the 200 mg/kg and the 500 mg/kg doses of the alugbati extract were not significantly different from ursodeoxycholic acid. There was no significant difference between 200 mg/kg and the 500 mg/kg doses of the alugbati extract, indicating a ceiling effect at the 200 mg/kg dose. Histopathology revealed no signs of hepatocyte injury in rats that received HRZ plus UDA and HRZ plus the different doses of alugbati while those that receive HRZ displayed ballooning degeneration. This study showed that the alugbati extract has a potential hepatoprotective effect on HRZ-induced hepatotoxicity of female rats.

Keywords: *alugbati, Basella alba Linn., Rattus norvegicus, liver, hepatotoxicity*

Safety and Efficacy of Pomelo (*Citrus grandis* (L.) Os.) Peel Methanolic Extract as Antiplatelet Agent in Albino Rats (*Rattus norvegicus*)

Paulino, K. M., Naveses, J. R., Ontal, M. G., Pacana, B., Palmera, F., Pantonial, R., Patarata, K., Peli, V. A., Procalla, R., Quiblat, M. R., Rivera, M. M., and Roferos, R.

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Cardiovascular diseases are the number one cause of death globally. Inhibitors of platelet function have been developed to manage these diseases but high costs and adverse effects warrant persistent search of effective natural alternatives. This study determined the safety and antiplatelet effect of pomelo (*Citrus grandis*) peel methanolic extract in albino rats (*Rattus norvegicus*). Safety was assessed by subjecting three rats to acute oral toxicity. The study utilized a randomized, controlled, double blind preclinical trial where 30 male rats were divided into five groups: negative control (0.2 mL saline solution), positive control (clopidogrel 1mg/kg), low (15mg/kg), medium (30mg/kg) and high dose (60mg/kg) pomelo peel extracts. Antiplatelet activity was measured through bleeding and clotting time. Baseline bleeding and clotting times were determined followed by once daily administration of interventions for 14 days. Post-intervention bleeding and clotting times were recorded. Results show that pomelo peel methanolic extract prolonged bleeding and clotting time in a dose dependent manner (MANOVA, $p < 0.05$) with the high dose showing significantly better results than clopidogrel (post-hoc, DMRT). Data suggested that pomelo peel extract was not acutely toxic at 5000mg/kg single dose. It prolonged bleeding and clotting time, showing potential as an antiplatelet agent.

Keywords: *Pomelo, Citrus grandis, cardiovascular disease, antiplatelet*

Subacute Toxicity Of Gumamela (*Hibiscus rosa-sinensis* linn.) Aqueous Flower Extract On Wistar Rats

Doplayna, Z. L., Doromal, D. M. L., Doromal, N., Doromal, X. L., Elevazo, P. III, Elizaga, M. T., Enobio, P. M. J., Esposado, P. A., Estimada, M., Estorninos, J. C., Estrella, E. E., Eugenio, A. P., and Faustino, H. Jr.

COLLEGE OF MEDICINE | 2017

Hibiscus rosa-sinensis L., commonly known as gumamela, has been intensively studied for its potential therapeutic uses such as antioxidant, hypoglycemic, anti-hypertensive, anti-cancer, wound healing, and hair growth, among other uses. A sub-acute toxicity study was done to determine the toxicity of gumamela flower extracts using concentration levels previously studied for acute toxicity in rats. In the 28-day repeated oral dose study, 30 Wistar rats were randomly assigned to high dose, low dose, and control groups (n=10). Flowers were dried and subjected to hot water extraction to produce final concentrations of 800 mg/kg (high dose), 400 mg/kg (low dose) aqueous gumamela flower extract. Pre and post treatment values were taken for body weight, biochemical tests such as serum creatinine and alanine aminotransferase (ALT). Daily observations for clinical signs of toxicity were recorded also. Data showed that high dose and low dose aqueous flower extract did not vary significantly from the control group in terms of pre-treatment and post-treatment body weight, serum creatinine and ALT at 95% confidence level. There was no mortality and no hepatorenal toxicity found in all groups. However, it is worth noting that signs of toxicity, such as changes in response to handling or difficulty in feeding, epistaxis, and hiccups were observed for rats in the high dose and low dose groups, but these may be due to uncontrolled factors and warrants further investigation. Thus, *H. rosa sinensis* aqueous flower extract is safe at doses of 400 mg/kg after twenty eight days.

Keywords: *Hibiscus rosa sinensis* Linn., gumamela, Wistar rats, flower extract, toxicity

Effect of Makahiya (*Mimosa pudica*) Ethanolic Extract on alcohol-Induced Hepatotoxicity among New Zealand Rabbits (*Oryctolagus cuniculus*)

Magarang, A. N., Mai, J., Maglasang, N. J., Mantawil, A., Marohombsar III, A., Masocol, E. J., Matilac, A., Miedes, J. L., Medina, J., Mulato, P., Montero, J. M. R., Nakan, S. F., and Naval, R. M.

COLLEGE OF MEDICINE | 2017

Alcohol intake contributes to over 200 diseases and injury-related health conditions, most notably alcohol dependence, liver cirrhosis, cancers, and injuries. Filipinos being the second highest consumer of alcohol in Southeast Asia, is predisposed liver damage. As alternative treatments such as Silymarin is expensive, a cost-effective alternate is a must. Researchers then determined if Makahiya (*Mimosa pudica*), reported to have similar hepatoprotective effects but is very much available and quickly grown in the country can be used as an alternative. The study had three groups with four rabbits each: the Toxicant group (alcohol), the Silymarin group (Silymarin+alcohol), and *M. pudica* group (Makahiya+alcohol). Baseline and post-administration ALT values, as well as histopathological readings, were obtained before and after 30 days of the administration. Results showed a significant difference between the baseline and post administration ALT values between Toxicant and Makahiya groups. With all these findings, the null hypothesis that intake of *M. pudica* ethanolic extract will have no significant effect on alcohol-induced hepatotoxicity was rejected.

Keywords: *Makahiya, Mimosa pudica, oryctolagus cuniculus, alcohol, hepatotoxicity*

Wound Healing Activity of Sambong (*Blumea balsamifera*) Essential Oil Extract in Swiss Albino Mice using the Excision Splint Wound Model

Tan, Z. J., Tumuran, J., Ulangkaya, S., Uson, A., Uyking, N. E., Vaporoso, E. M., Vergara, M. A., Versola, D., Villamor, D. G., Villarosa, I. F., Wee, A. M., Yap, C. D., and Yson, P. H.

COLLEGE OF MEDICINE | 2017

Wound healing activity of *Blumea balsamifera* (Sambong) leaf essential oil was investigated in Swiss albino mice. Twenty -five mice were excised with wounds measuring 13 ± 2 mm in diameter, and improvised silicone rubber splints were sutured around the wound to mimic the human model of wound healing, showing granulation, issue formation and reepithelialization. Various concentrations (100%, 20%, and 10%), negative (PBS only), and untreated control groups were given appropriate treatments daily for 10 days. Mean wound diameter measurement was done at days 1, 3, 5, 7, and 10. Histopathologic analysis was also conducted post-euthanasia with a histologic scoring of the tissue samples. Results showed that the low concentration (10%) showed the highest effect in terms of wound closure percentage although post hoc analysis revealed that the three groups had no significant difference in wound healing. The treatment groups, however, when compared to the negative control and untreated control showed a significant difference in the percentage of wound closure, which meant that all concentration of sambong extract had wound healing activity. On the other hand, sambong had a similar effect to the control groups in term of forming thin, immature to thick granulation tissue, perhaps due to a lack of specific stain used in the study. Data suggest that a statistically significant difference in wound healing rate among groups treated with sambong extract as measured in percentage of wound closure is evident.

Keywords: *Sambong, Swiss albino mice, Blumea balsamifera, wound, leaf essential oil extract*

Cardiovascular Health Status and Symptomatic Effects of Caffeine Among Adult Consumers

Catimbang Jr., E., Agrave, M. J., Capangpangan, T. A., Cahn, J., Deocampo, Y. X., Gador, G., Gomez, O. M. F., Lao, J. R., Madrones, L. L., Monarca, R. J., Peñera, L. R. I., Pinig, B. J., Polinar, C. E., Ronquillo, K., Sialana, L. L., Toh, K. I., Tuballes, R., Veloso, J. M., and Yee, P. L. A.

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According to the Philippine Council for Health Research and Development, cardiovascular diseases are still the country's top cause of mortality outranking the other non-communicable diseases such as cancer, chronic respiratory diseases, and diabetes. Each year, 170, 000 Filipino die from cardiovascular diseases, up from 85, 000 more than 20 years ago, according to a 2009 study by the Department of Health. In the Philippines, adults were the primary consumers of caffeinated drinks such as coffee and tea. Potential adverse effects of the excessive consumption of caffeinated beverages were reported, and majority of the studies suggest that consuming caffeinated beverages amplifies the risk of increasing an individual's blood pressure. The study determined the demographics, cardiovascular health status, and the symptomatic effects of chronic consumers of caffeinated drinks. Heart rate, Blood pressure, and 12-Lead Electrocardiograph were used as parameters in the study. The results of the parameters were obtained from 13 medical students consisting of seven females and six males, followed by an in-depth interview. Eleven out of the 13 participants had normal blood pressure and heart rate results, and normal ECG results. The participants also perceived the symptoms related to the physiologic aspect such as gastrointestinal, cardiovascular and respiratory related symptoms as well as the psychological aspects such as mental alertness, restlessness, and perceived dependence and headache.

Keywords: *cardiovascular health status, caffeine, coffee, tea, cancer*

Cardiovascular Risk Assessment Among 20-30 Year-Old Medical Students of Davao Medical School Foundation, Inc. Based on Framingham 30-Year Score System

Alinas, J. M., Bacayana, R. G., Benignos, A. M., Cabada, J., Del Rosario, A., Eliseo, M., Gallo, S., Himagan, J. A., Javinez, C. D., Lim, C. M., Lopez, A. R., Molina, C. R., Mondragon, M., Mosura, J. M., Padasay, G. P., Sampang, F. S., Sangkigay, A., Sulaik, H. J., Tanquerido, M. J., and Velasco, G.

COLLEGE OF MEDICINE | 2017

Cardiovascular diseases (CVDs) are the leading causes of mortality worldwide. Although these frequently occur among elderly, the pathogenic process causing CVD begins at a young age. It develops due to the interplay of various modifiable (systolic blood pressure, total cholesterol (TC), smoking, and diabetes) and unmodifiable (age and sex) Risk Factors. A descriptive study was done determining the cardiovascular risk among 20 to 30 years old medical students of Davao Medical School Foundation based on Framingham Risk Score System. Majority of the participants belong to the 20 to 22 years old age group accounting 83 (69%) of the 121 total participants. Most of the participants are female with a total number of 88 (73%) while 33 (27%) of them were male. Systolic BP varies between 90 to 140 mmHg. Majority of the participants, 93 (77%), have desirable values of TC, 23 (19%) have borderline high values, and five (4%) have high values. Majority have normal High-Density Lipoprotein (HDL) accounting 89 (74%) of the participants, 16 (13%) were described as best, and 16 (13%) were described as low. All participants have normal FBG. One hundred twenty participants recorded with a low Framingham 30-year risk score of full CVD, while only one has an intermediate risk. However, individual low risk scores do not guarantee the total absence of risk factors. The presence of risk factors such as smoking, high TC, and low HDL levels must not be disregarded. Early detection of these modifiable risk factors plays a significant role since beneficial lifestyle changes would largely contribute to the primary prevention of CVDs.

Keywords: *Cardiovascular diseases, blood pressure, cholesterol, smoking, diabetes.*

Effects of Caffeine on the Biophysiologic Markers and Mental Alertness among Nursing Students of Davao Medical School Foundation, Inc.

Alinas, J. M., Bacayana, R. G., Benignos, A. M., Santos, N. A. G., Alvaro, A. B. M., Alug, M. H. B. S. B., Aton, A. M. Q., Bayocboc, D. S., Dizor, J. C., Faburada, J. D., Flores, K. J. L., Gantuangco, M. R. S., Hamoy, J. V. G., Lim, M. V. D., Makalingkang, S. M., Micayabas, L. T., Natividad, K. I., Pencerga, R. F., Pinsoy, M. M. L., Ponferrada, G. A. A., Robles, M. Y., Soo, B. D. B., and Tomimbang, M. K. R.

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The study determined the effects of caffeine on the physiologic markers and mental alertness among nursing students of Davao Medical School Foundation, Inc. It utilized a double-blind placebo-controlled research design conducted at the DMSFI. Fifty-two participants were randomly assigned to control and experimental groups. Physiologic markers: heart rate, respiratory rate, systolic and diastolic blood pressure; and mental alertness: number of lapses and mean reaction times were measured. These were recorded before intake of the caffeinated and uncaffeinated coffee, then after thirty, sixty minutes, and four hours of coffee consumption. There were 16 (62%) females and 10 (39%) males respondents for the experimental group, while 20 (77%) females and 5 (19%) males are in the control group. Significant differences on the baseline and after four hours of coffee consumption on the respiratory rate and diastolic blood pressure was noted. Findings also revealed a significant difference in the number of lapses and mean reaction times at baseline and after 60 minutes, and lastly, after four hours of coffee consumption on both number of lapses and mean reaction times as compared to the baseline. In summary, data indicated that caffeine can have significant effects on mental alertness, even at relatively low doses.

Keywords: *Caffeine, biophysiologic markers, mental alertness, students, DMSFI.*

Effect of Different Music Genres in the Mean Arterial Pressure Among Prehypertensive Adult Volunteers in a Local Barangay in Davao City

Aquitania, H. R., Aronzado, C., Barbas, M. A., Budac, K., A. ,J., Calabazaron, M. F. B., Doronio, J. K., Flores, M. K., Hofileña, J., Licayan, J. M., Lorenzo, M. M., Lotilla, R. J., Magallanes, J. C., Pablo, M. J., Pilarte, L., Sambarani, S. J., Uy, R. J., Uyanguren, D., Vivares, E., and Zailon, Z.

COLLEGE OF MEDICINE | 2017

Hypertension is one of the most prevalent disease affecting Filipinos today. It is preceded by prehypertension and is the critical turning point for reversal of borderline increased blood pressures. Music therapy has been reported to influence vital signs. Thus, this study determined if different music interventions affect the mean arterial pressure (MAP) of prehypertensive individuals. Thirty participants, aged 40 to 70 years from Barangay Buhangin, Davao City were enrolled in the study. Blood pressure of the respondents was recorded before and after the intervention. Findings of the study show that there was no significant difference in the means of MAP across the different music interventions. This implied that all interventions used were found to affect MAP to some extent. The most significant among the findings was that of New Age music as it was found to be the only intervention that had a statistically significant. Among the interventions used, New Age music can be used as management of prehypertension as it was effective in both clinical and statistical findings. The study highlighted the potential of music therapy in lowering blood pressure levels

Keywords: *hypertension, music, MAP, Intervention.*

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Effect of Raw Cocoa (*Theobroma cacao*) on Lipid Profile among Low-risk Hyperlipidemic Adult Volunteers of Talomo District, Davao City

Acdog, M. C., Bantillo, R., Barbas, M. A., R. F. Bautista, C. Caballo, S. A. Cali, A. Calunsag, D. L. Castro, L. M. Concemino, K. Embradura, T. A. Estrada, M. K. Ferrazzini, V. C. Gabilagon, C. J. R. Galapate, T. J. Gaviola, R. P. Herrero, C. A. Johannis, I. C. Libre, J. B. Lim, G. S. Panuela, J. P. Quinonero, J. C. Sevilla, J. P. Sunga, A. C. Uy

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Hyperlipidemia is a family of disorders that are characterized by a normally high level of lipid (fats) in the blood and is also considered a risk factor for cardiovascular disease (CVD) among Filipinos. In relation, the effect of raw cocoa (*Theobroma cacao*) on lipid levels among low risk hyperlipidemic adult volunteers in North and Central Talomo District, Davao City was investigated for a duration of three weeks. Eight grams of powdered 85% raw cocoa was prepared for consumption. Two groups of 17 volunteers each (experimental and control) started the treatment but only 25 participants (10 men, 15 women) completed the study. Comparison of the pre- and post-intervention lipid profile revealed that a significant decrease of the Total Cholesterol, Low Density Lipoprotein, and High Density Lipoprotein among the control group and Triglycerides were found to be inconclusive. A significant decrease of the Total Cholesterol, Triglycerides, High Density Lipoprotein and Low Density Lipoprotein was observed in the experimental group. However no significant percentage change was recorded when results of both groups were compared. Data suggested that individuals with low risks of hyperlipidemia who consume about eight grams of dark cacao powder may experience improvements in their lipid profile.

Keywords: *Cocoa, theobroma cacao, hyperlipidemia, lipid, cardiovascular disease.*

Effect of Coconut (*Cocos nucifera*) Sugar on Postprandial Blood Glucose Among Adult Volunteers at-risk for Type II Diabetes Mellitus

Abas, S., Agbayani, S. J. V., Agtarap, D. G. T., Andales, M. J. E., Astronomo, J. J. L., Cariaga, J. M. C., Chavez, E. G., Collantes Jr., M. J. J., Estaña, H. M. B., Gerber, M. P., Castro, K. C., Haw, J. T., Hipulan, R. L. A., Pacatang, C. V. D., Pizaña, A. L. L., Sahabat, R. L., Sandoval, P. C., Sente, R. A., Tuazon, A. A., Untalan, P. A., Yamas, M. N. V., and Salumbides, C. M.

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A low-fiber diet with a high glycemic index and sugar-sweetened beverages are associated with a higher risk of type II Diabetes Mellitus. Interestingly, coconut sugar is an alternative organic sweetener with low glycemic index and inulin levels greater than 4.0 mg/dL. Foods with a low glycemic index have shown to decrease postprandial glucose and insulin responses in patients with type II diabetes mellitus. Thus, this study determined the effect of coconut sugar on the postprandial blood glucose level among participants at risk of Diabetes Mellitus in Davao City. The study utilized a between-subjects quasi-experimental design comparing the effects of coconut sugar and the table sugar on the Postprandial Blood Glucose Test. Forty participants were screened using the Diabetes Risk Test of the American Diabetes Association and fasting blood sugar. Muffins containing coconut sugar or table sugar were used as test meals for adult volunteers. The Blood glucose levels were determined at one hour and two hours postprandial. Results show that the mean blood glucose level at one-hour postprandial of the adult volunteers who consumed the test meal containing coconut sugar, it also contained inulin, which was not hydrolyzed nor absorbed in the intestine based on its chemical structure. The lower mean of coconut sugar is attributed to its low glycemic index and inulin content. Thus, coconut sugar has an effect on the blood glucose level of volunteers at risk of Type II diabetes mellitus specifically, at one-hour postprandial.

Keywords: coconut, *Cocos nucifera*, sugar, diabetes mellitus, diet

Effect of Honey on the Lipid Profile of Adult Volunteers in Barangay Communal, Davao City

Barnuevo, C. T. B., Davin, C. A. S., Ekrima, Z. L., Estares, M. G. P., Iribani, F. J., Labtang, T. B., Limen, N. F. C., Lisondato, P. M. D., Masulot, I. B., and Pahm, N. A.

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A significant risk factor of ischemic heart diseases is high total cholesterol. In this study, the researchers determined the potential of honey as an adjunct therapy to influence the lipid profile of adults volunteers from Barangay Communal, Davao City. This is a randomized controlled clinical trial study on 50 adult volunteers who are considered at low risk of developing cardiovascular diseases. Baseline lipid profiles were taken before the start of intervention. Subjects were assigned to either 20 or 74 grams of honey group through fishbowl method. The subjects were instructed to incorporate honey into their diet for 21 days. Data showed that the group which consumed 20 grams of honey per day showed a significant increase in HDL and a significant decrease in triglyceride and total cholesterol. The 75-gram group data showed a significant increase in both HDL and LDL. While the HDL increase was expected, very few other studies cite the increase in LDL, which was expected to decrease upon consumption of honey.

Keywords: *honey, lipid, ischemic heart disease, HDL, cholesterol*

Manganese Level in Children with and without Attention Deficit Hyperactivity Disorder (ADHD) in Davao City using Hair Analysis: A Pilot Study

Espela, H. J., Alonzo, K. N., Calumpit, C. E., Concepcion, W., Derequito, J. B., Equiña, A., Homez, G. A., Laurencio, J. R. J., Llemitt, A., Ma, K. A., Maravillosa, K. R., Mokamad, K. A., Paulino, C. S., Pelayo, R. A., Sanchez, P. L., Taruc, A. J., and Villa-Agustin, K. A.

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Attention-Deficit Hyperactivity Disorder is a common childhood neurodevelopment condition characterized by impulsivity and behavioral problems. Studies reveal that manganese levels could decrease dopaminergic activity in the brain, thus, creating neurofunctional alterations such as hyperactivity behavior. This study documented manganese level in hairs of children. The study included two groups: ADHD and control group, each having 11 male and three female participants, age ranging from four to twelve years old. Inductively Coupled Plasma Spectrophotometry was utilized as a method of measurement (ICP-MS) with a reference range of 0.010 to 0.130 mg/100 mg of hair specifically for manganese levels. Study results showed that both groups had the same amount of manganese exposure from environmental risk factors such as the source of drinking water, diet, and smoking. Nine out of 14 ADHD participants while all participants from the control group had manganese levels which were higher than normal values. The average level of manganese for the ADHD group was 0.340 mg/100g, with SD of 0.54 and 0.27 mg/100g for the control group. Based on accepted reference range for manganese, the means were found to be high.

Keywords: *manganese, children, ADHD.*

Perceived Stress and Blood Cortisol Levels of First Year Medical Students in Davao Medical School Foundation, Inc.

Barro, K., Batilong, D., Cheung, D., Ekrima, A., Gaerlan, P., Isaguirre, M., Jorada, G., Jaudian, N., Kasan, B., Mahipos, A., Mirasol, P., Patoril, M., Respecia, C., Santander, M., Valdez, A., Viva, G., and Zarate, G.

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The pursuit of postgraduate education in the field of medicine is naturally stressful, especially in the first year of medical school since students at this level are still adjusting. Postgraduate medical education is naturally stressful because the environment is competitive. For these reasons, medical students are prone to stress and stress-related problems than the general population. Stress, when too much, causes many problems to the functioning of an individual. This study determined if perceived stress reflected changes in the blood cortisol levels of the participants. Perceived Stress Scale (PSS) and Blood Cortisol Test were employed. There were 65 participants, and majority were female (median = 2), most were under the age group of 22 to 25 years old, and most of them have healthy BMI. PSS scores (mean = 20.0769 ± 5.2151) and blood cortisol levels (mean = 15.6756 ± 7.5021) of majority of respondents were moderate and healthy. Age, sex, and BMI did not significantly affect PSS scores while only age had a significant effect on blood cortisol levels. The correlation coefficient indicated PSS scores and blood cortisol levels to have a positive but weak correlation. Results of this study suggest that first year medical students are still experiencing a safe level of stress.

Keywords: *stress, education, postgraduate, first year students, blood cortisol*

Prevalence of Clinical Manifestations Related to Carpal Tunnel Syndrome Among Construction Workers in Selected Areas in Davao City

Abellera, P. D., Ang, L. J. M., Arsad, M. A. U., Bersamen, D. B., Consigna, J. S. S., Cusilit, E. D., Derecho, P. A. P., Dospueblos, D. B., Estepa, V. A. T., Gandeza, G. E., Gealon, J. Y., Machacon, J. P. C., Mainopaz, T. S. M., Navarro, J. K., Parilla, I. M. C., Rotersos, G. L. D., San, K. A. E., Sanchez, C. J. F., and Segocio, G. M. D.

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Carpal Tunnel Syndrome is the most diagnosed disabling condition of the upper extremity. This study, documented prevalence of low, moderate and high probability cases of clinical manifestations of carpal tunnel syndrome in terms of age, work duration (years) and job category among construction workers of Davao City. CTS-6 was used as a diagnostic tool for CTS. Construction workers who worked for more than five years comprise 69% of the participants. Results showed a prevalence rate of 4% for low probability, 11% for moderate probability and 13% for high probability. Highest prevalence rate for moderate and high probability cases was recorded between 31 to 45 years old with a mean of 36 years. No linear relationship was observed between age and probability of having CTS. However, low probability cases of having CTS showed a significant difference between age categories. Highest prevalence rate of low and moderate probability cases was observed in work duration of five to ten years. Workers working less than five years showed the highest prevalence rate for high probability cases. No linear relationship between work duration and the probability of having CTS was observed however low, and high probability cases of having CTS showed a significant difference while moderate probability showed no significant difference between work duration in years. Masons and painters show highest prevalence rate of low probability cases. Steelman show highest prevalence for moderate probability cases. Painters constitute 50% of high probability cases. Difference between job categories was statistically significant for low, moderate, and high probability cases.

Keywords: *Carpal Tunnel Syndrome, prevalence rate*

Proportion of Peripheral Neuropathy among Diabetics using Semmes Weinstein Monofilament and Vibratory Sensory Tests

Ajos, J. J., Briones, R. I. M., Chavez, K. N., Enammo, K. F., Fortuna, L. A. M., Francisco, B., Gamalo, M., Libre, A., Lim, C. E., Loyola, D., Lozano, J., Luzon, S., Marcelino, S., Masukat, P. S., Obenza, A. S., Pacudan, M. T., Parcon, C. A., Pepito, P., and Tobias, B. M.

COLLEGE OF MEDICINE | 2017

Periphery Neuropathy is one of the most dangerous complications of diabetes. Prevalence of neuropathy varies from as low as 2% to as high as 100% in patients with type II diabetes. The study determined the prevalence of Peripheral Neuropathy among diabetic individuals in terms of their demographic profile (age and sex), and HbA1c levels. A diabetologist performed the Semmes-Weinstein Monofilament Test and the Vibratory Sensory Test to assess the presence of peripheral neuropathy among the participants. The cross-sectional descriptive research design was used to describe the participants according to age, sex, and HbA1c in Barangay 76-A, Bucana, Davao City. Using a standardized questionnaire, participants were asked about sensory neuropathic symptoms. There were 28 participants: 10 male, 18 female, and the average age was 59 years old. HbA1c results revealed that 54% or 15 of the patients have HbA1c level below 6.0 mmol, while 36% or 10 of the diabetic patients have peripheral neuropathy. The proportion of peripheral neuropathy among people with diabetes is of 93% for Semmes-Weinstein Monofilament Test, which was very high and 64% for Vibratory Sensory Test, which was high.

Keywords: *peripheral neuropathy, diabetes, Semmes Weinstein monofilament*

Pulmonary Function of Laundry Workers Chronically Exposed to Chlorine

Abrantes, J. P., Adriatico, M. L. T., Cajés, K. P. N., Carillo, G. G. Jr., Cornelio, M. A. E., De Guzman, A. E. S., Fernandez, J. K. S., Garcia, C. A. M., Guinta, S. M. K. P., Hong, J. C. E., Leiy, G. G., Mendoza, J. R. D., Panes, M. G., Pangilan, L. C. Y., Pineda, C. I. D., Querol, T. C., Guimpang, M. N. B. T., Rollo, E. J. C., and Udang, L. M. T.

COLLEGE OF MEDICINE | 2017

Chlorine is widely used as a bleaching agent in industry and society. In the hospital setting, it is used in increased concentration to remove blood stains and dirt in hospital bed linens. With the increasing use of chlorine, this study evaluated the potential effects of chronic inhalation of chlorine in the respiratory function of laundry workers. The participants included were laundry workers from tertiary hospitals in Davao City. A control group who were comparable with the individual respondents in terms of the demographic profile and past medical history was included in the study. The pulmonary function was determined using a spirometer and parameters evaluated include Forced Expiratory Volume in 1 second, Forced Vital Capacity and Forced Expiratory Volume in 1 second/Forced Vital Capacity ratio. The spirometry testing was conducted in San Pedro College, Davao City. A two-sample *t*-test statistical technique was employed on the data gathered and obtained. The laundry workers exhibited a decrease in FEV1, FVC, and the FEV1/FVC ratio compared to the control group, but there was no significant difference between laundry workers chronically exposed to chlorine and control group who are not exposed to chlorine in terms of the FEV1, FVC, FEV1/FVC ratio. The result of the investigation suggests that although chronic chlorine inhalation produced a decrease in the pulmonary passageway of the laundry workers, the difference between the exposed and unexposed groups however was not statistically significant.

Keywords: *Chlorine, laundry, pulmonary function, respiratory, inhalation.*

Effect of Difference Lens Filters on the Shooting Accuracy of Davao City Police Officers: A Pilot Study

Luengo, M. S., Alegre, N. S., Batucan, C. R., Castellones, M. B., Dacula, S. D., Fontanilla, J. G., Gamboa, G. P., Gepaya, J. Y., Guillermo, A. U., Lacorte, O. A., Langahid, T. O., Paguitan, N. A., Samaon, J. T., Sandig, J. B., Serrano Jr., J. D., Tagsa, M. P., Tolentino, B.S., and Yap, J.O.

COLLEGE OF MEDICINE | 2017

The study investigated the effect on the shooting accuracy of Davao City Police Officers when wearing yellow, brown and rose colored lens filters. The research was conducted at Camp Catitipan Shooting Range, Davao City using experimental pre-test and post-test design. The results showed that there is no significant difference between the mean shooting accuracy without using the lens filter and the mean shooting accuracy when using the yellow, brown and rose filters. Results also showed that there was no significant difference in the mean shooting accuracy of the officers when results from the different lens filters are compared. However, the questionnaires showed that the police officers perceived an improvement in shooting accuracy while wearing the lens filters, particularly the rose filters.

Keywords: *shooting accuracy, lens filters, police officers*

Practices on Smoking Among Smokers in Purok-5 Tigatto, Buhangin, Davao City For The Year 2017

Gudiva Bhavya Pranathi, Sneha K. Hattarkal, Inbaraj Narmatha, Kuchipudi Spoorthy, Kupusamy Gayathri

COLLEGE OF MEDICINE | 2017

Smoking is both a physiological and a physical addiction. It involves consumption of nicotine, which is a powerful and highly addictive substance delivered to the brain rapidly and effectively. A study was conducted in Buhangin, Davao City to determine the practices on smoking among smokers, and their socio-demographic profile. A descriptive study was used for data collection and a survey questionnaire was utilized as the research instrument. One hundred one out of 310 households were interviewed, all of which has at least one smoker. Twenty eight out of 101 smokers were willing to be interviewed including twenty five males and three females. Data revealed that the frequency of smoking shows four members smoke zero to three sticks per day, nine members smoke four to six sticks per day, one member smoke seven to nine sticks per day, seven members smoke 10 to 12 sticks per day, two members smoke 13 to 15 sticks per day, four members smoke 19 to 21 sticks per day, one member smoke was greater than 21 sticks per day. While the data analysis of age on cigarette smoking initiation among 28 interviewed smokers shows two members started smoking at less than or equal to nine years of age, eight members started at the age of 10 to 15, 14 members at the age of 16 to 20, four members at the age of 20. Moreover, the mean age of smoking initiation was approximately 17 years of age. In addition, among 28 smokers, 10 members like to stop smoking, 10 members do not want to quit, and the remaining are not sure to quit smoking.

Keywords: *Smoking, Practices, Cigarettes, Profile, Smokers*

Knowledge, Attitude and Practices Regarding Cigarette Smoking Among Smokers in Purok 2, Barangay Lapu-Lapu, Maco, Compostella Valley

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COLLEGE OF MEDICINE | 2017

Cigarette smoking is one of the world's most significant public health threat with a mortality of more than seven million people annually-killing up to one-half of its user. Despite the effort done by the national and local government, cigarette smoking is still rampant. Thus, this study determined the knowledge, attitude, and practices regarding cigarette smoking among smokers in Purok II, Barangay Lapu-Lapu, Maco, Compostella Valley. This study also determined the demographic profile of the respondents and their awareness on the anti-smoking programs of the barangay health center. The quantitative descriptive research design was employed with total enumeration as sampling technique. Thirty-five respondents were identified from among 38 households who were 18 years old and above at the start of the study, has given consent to be part of the study, and has smoked 100 cigarettes in his or her lifetime and who currently smokes cigarettes. Results suggested that the respondents were knowledgeable regarding cigarette smoking, its consequences, prevention and treatment option, with an exception on the issue on second-hand and third-hand smoke. Awareness of anti-smoking programs was also determined, but respondents were hesitant to do consult and attend the seminar on how to quit smoking, and their willingness to quit is weak.

Keywords: *Cigarette, Smoking, Practices, Prevention, Awareness*

Risk for Dengue Outbreak of Purok Upper Tinago, Barangay Matina Crossing, Davao City

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COLLEGE OF MEDICINE | 2017

Globally, over one million annual deaths are caused by infectious diseases, 17% of which are vector-borne caused by mosquitoes, including Dengue. There is a growing need for vector control, and measures include mosquito surveillance and vector ecology research that are essential in the pursuit of reducing mortalities and morbidities. A larval survey using a descriptive study design was conducted on 50 households using a non-probability convenience sampling method in Purok Upper Tinago, Matina, Davao City. Six hundred ninety three containers were examined, the most common breeding source were outdoor containers, including bottles (235) and drums (112) which were uncovered. Nine out of the 50 households were found to be positive for larvae. Calculated larval indices were high: House index (18%), Container index (2%), and Breteau index (18%). Out of the 693, 12 containers were found to be positive for larvae, eight had *Aedes aegypti* and five had *A. albopictus*. The relatively high values of the three indices categorized the community as Priority II, putting the locality at high risk for Dengue. Hence, prompt action for better control of breeding sites for *Aedes* species should be done. Local health authorities are encouraged to conduct programs centered on prevention and control of Dengue through intensifying existing IEC campaign on dengue prevention and vector control. Apart from health education and conducting monthly entomological studies, it is suggested to mobilize the community towards the identification and elimination of mosquito breeding sites through improving environmental sanitation.

Keywords: *Dengue, Disease, Outbreak, Health, Mosquito*

Therapeutic Adherence of Hypertensive Individuals in KM 12, Purok Suha

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COLLEGE OF MEDICINE | 2017

Non-adherence to pharmacologic treatment is one important issue requiring immediate action. Adherence, defined as the extent to which a person's behavior-taking medication, following a diet, and executing lifestyle changes, corresponds with agreed recommendations from a health care provider, tends to be low in developing countries causing further disabilities and mortalities. This study determined the therapeutic adherence of Hypertensive individuals in KM 12, Purok Suha and to collect information from all diagnosed hypertensive individuals with prescribed maintenance medication. Using a mix of descriptive quantitative and qualitative research design, this study included the whole population of diagnosed hypertensive individuals in Km 12, Purok Suha. Data was gathered through a one-on-one interview by an interview schedule, and the interview conducted used the MMAS 8 tool. Results showed that the majority of diagnosed hypertensive individuals have low adherence to their medication caused by different factors, forgetfulness due to their advancing age being the top reason. Other factors were from the respondent's lack of knowledge of the disease, lack of understanding about the treatment and its effects, poor health-seeking behavior, and financial constraints.

Keywords: *therapeutic adherence, medication, treatment, factors*

Knowledge, Attitude and Practices among Hypertensive Individuals in Purok 6, Barangay 36-D, Jacinto Davao City

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COLLEGE OF MEDICINE | 2017

Hypertension or the 'silent killer' is one of the most crucial health problems and the most common chronic disease in developed and underdeveloped countries. This study determined the knowledge, attitude, and practices among hypertensive individuals in Purok 6, Barangay 36-D, Davao City, as well as to understand the prevalence of hypertension. A survey was employed to collect data. Majority of the respondents are in the 40 to 80 age group, 11 out of 20 respondents are female. Thirteen out of 20 respondents have a family history of hypertension. Ten out of 20 respondents consume alcohol while four out of 20 respondents are obese. Mean SBP upon interview was 138.53 mmHg while DBS was 92.3 mmHg. Most of the respondents have an excellent attitude towards hypertension. They strongly agreed that hypertension is a severe illness that can affect everyone regardless of gender, and blood pressures should be monitored weekly. They also agreed that hypertension could be controlled by medications and lifestyle modification. Lowering the salt intake appeared as the most common preventive measures employed by study participants to control hypertension alongside keeping themselves physically active while consuming a high-fiber diet. Furthermore, more than half of the participants do not take any medications for hypertension, and 11 out of 20 respondents do not have their BP measured weekly due primarily to inadequate medical seeking behavior and finance.

Keywords: *practices, hypertension, behavior, medications*

Qualitative Analysis of Drinking Water Sample From Upper Tamugan Water Pipe System of Sitio Center, Barangay Tamugan, Marilog District, Davao City

Laure, K. J. B., Lompot, K. A. C., Maglana, C., and Mama-o, J. M.

COLLEGE OF MEDICINE | 2017

Clean and sufficient water supply is required for several day to day life activities. In this study, the quality of water in Sitio Center, Barangay Tamugan, Marilog District, Davao City was investigated. Samples were taken from two sources, the Tank source, and House source. Each source was described base on its physical surroundings, physiochemical and microbiological characteristics. Based on proponent's senses, all water samples from the sources have no unobjectionable odor, has standard color, and no turbidity indicating that the water sources in the site met the criteria for physical characteristics of water based on DOH. In terms of turbidity level, both sources have NTU of less than 5, which is within the acceptable standard. The water's pH in the Tank and House sources showed a neutral pH of 7.4 and 7.2. For microbiological characteristic using multiple tube fermentation technique, only the tank source revealed negative result whereas from house source rendered a positive result with total coliform count of greater than 8.0 MPN/100 NL and fecal coliform value of 2.6 MPN/100mL, both failed based on standard values set by the DOH. The results of the present research show that drinking water collected from the two different areas of Sitio Center showed variable result. The Tank source was found to be potable and is suitable for human consumption. However, water collected from the house source was not potable.

Keywords: *qualitative Analysis, drinking water, water pipe system, pH, microbiology*

Knowledge, Attitude and Practices on Mosquito Infestation and Control Among the Adult Population of Purok San Roque, Barangay Sasa, Poblacion District 2, Davao City

Sivarupini Sugumaran, Balaaji Thirumaran, Tamil Aruvi Thiruman, and Thirumalaikumar Valaiyapathi

COLLEGE OF MEDICINE | 2017

Mosquitoes are the most dangerous creatures on the planet because of their ability to spread deadly diseases through their bites. In this study, researchers determined the knowledge, attitude, and practices on mosquito infestation and control among adult population of Purok San Roque, Barangay Sasa, Davao City. Quantitative approach for data collection using survey questionnaires was employed. One hundred thirty four (63%) out of 213 households were surveyed in Purok San Roque. Problems prioritized were mosquito infestation (topmost), followed by stagnant water and open drains. Respondents do have the right attitude towards the urgency and seriousness of mosquito infestation and control and the practices of the people to reflect their level of knowledge on mosquito infestation and control. Although having better health-seeking behavior, the respondents were found to have understood the gravity on mosquito infestation and control and have a right attitude for improving their practices. Hence, active intervention by the local barangay health center may improve monitoring on mosquito infestation and control practices in the purok.

Keywords: *mosquito, infestation, bites, water, control*

Yoyo Cycle of Prostitution: The Study of Six Prostituted Women

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COLLEGE OF MEDICINE | 2017

Prostitution has been described as the world's oldest profession, and over the years, it continued to rise despite regulatory attempts. This study looked into the lives of prostituted women and impact of prostitution in terms of how they see themselves, their relationships, and their plans. A qualitative research design was utilized involving six participants. Researchers obtained informed consent form and ensured a full understanding and voluntary participation of the participants. Respondents were interviewed at their respective homes and were asked about their life before and after prostitution, struggles, outlooks, and plans in life. Based on the data collected, poverty played a significant role as to why these women engaged in prostitution as it served as their family's source of income to survive in a daily basis. All of them wanted to leave this kind of work, but they lack the conviction, skills, and resources that allow them to engage in the deliberate exit. Women are entering sex work at any age as a result of economic need. This desperation to generate income for themselves and their children is indeed a risk factor for both entering and maintaining a prostitution lifestyle.

Keywords: *prostitution, women, trade, sex, lifestyle*

Choosing Life: Prostitution and Suicide Survivalism

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COLLEGE OF MEDICINE | 2017

According to the World Health Organization (WHO), suicide is a significant public health issue and is now a global phenomenon. Prostitution, on the other hand, has been described as the world's oldest profession, and over the years, prostitution continues to rise despite the attempts at regulation by many sectors. The phenomenological study presented the lives of eight women of prostitution, both survivors and those actively engaged with regards to the impact of their work to their mental health, specifically suicidal behaviors. Eight women participants, involved in prostitution, were interviewed with open-ended questions adapted from a standardized set of questions on depression and suicidal behavior. The conversations were recorded with a voice recorder, and data verification was done by repeated questioning. Excerpts from the interviews were noted prostitution in the streets, clubs, bars, and docked ships included poverty, escape from abusive family relationships, inadequate income from work, and teenage pregnancies. The feelings of depression and suicidal behaviors were present in all women who were brought about by sexual and emotional abuse, neglect, relationship problems, loneliness, and helplessness. Thoughts of strangulation, wrist cutting, substance abuse, and jumping off flyovers were noted. In most of the women, there were no more persistence of suicidal thoughts due to the support bright by family members, peers, counselors, religious institutions, thought diversion and focusing on social responsibility to the community. Their inspirations to continue living included their families, their desire to change their economic situation, and their faith in God.

Keywords: *prostitution, women, suicide, sex, emotional abuse*

Report on Hypertension Affected Individuals in ADAP and CVD Program

Bharathi Jude Angelus, Navya Jyothi Annapareddy, Inigo Jaisingh Arokiaraju, Santhosh Ram Asokan, Ram Avvari

COLLEGE OF MEDICINE | 2017

Hypertension is an "iceberg" disease so it is essential to have an updated CVD program in a community for people to be aware of the dangers of its complications. As per WHO NCD Philippines profile, mortality due to CVD in Philippines in 2014 is 33%, raised blood pressure in adults is 26%. Association of Differently Abled Persons (ADAP) is a community designed to serve and cater to the needs of the Person with Disability (PWD), located in Santa Cruz purok, Indangan Barangay, Buhangin district. Despite being integrated with CVD programs of barangay, it is noted that there is an increase in the number of morbidity and mortality through cardiovascular disease mainly due to hypertension in ADAP. Using a descriptive study and selecting individuals 40 years and above, CVD program of the local barangay health center and the hypertension of the subjects is described and evaluated. Data collection is done with the questionnaire. The goal was to detect & control high blood pressure in affected individuals. This requires proper health care delivery through a standard CVD program and good patient compliance through proper adherence and awareness. Subjects in this study area are aware of the consequences of uncontrolled hypertension. Except one, all of the subjects are in maintenance medication. All go for regular follow up check up and get maintained regularly. There are problems in adherence to the affected individuals' side. Physician's availability is also a concern. However, there is regular dispensing of medicines.

Keywords: *hypertension, ADAP, CVD, cardiovascular, medicine*

Suspected Typhoid Fever Cases in Buda Community Health Center, Buda, Marilog District, Davao City from August 2014 to July 2017

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COLLEGE OF MEDICINE | 2017

Admissions of patients with suspected typhoid fever, a potentially deadly multisystemic disease caused primarily by *Salmonella enterica* has been increasing in Buda Community Health Center. The pathogenic agent of this disease spreads through feces or urine-contaminated food or water and occasionally through direct contact with someone who is infected and even after treatment with antibiotics, they continue to harbor the bacteria in their intestinal tract or gallbladders, often for years. This study determined the prevalence of Typhoid Fever admissions in Buda Community Health Center, from August 2014 to July 2017 looking specifically at patients' demographic profile (age and sex) as well as the distribution of cases in terms of time or year and place of residence. Two hundred seventy five suspected cases have been identified during this timeframe, with predominance among males and children aged between 5 to 9 years old. December 2014, October 2015, and March 2017 were the months with the highest number of cases, and Sinuda, Kitaotao, Bukidnon was the place of residence where most of these patients came from. Lastly, 96% of these admitted cases have improved, and there was no mortality recorded. Overall, this will open doors for future community health assessments and interventions thereafter.

Keywords: *typhoid fever, Salmonella enterica, prevalence, bacteria, assessment*

Prevalence of High Risk Individuals for Cervical Cancer Among Davao City Female Jail Inmates

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COLLEGE OF MEDICINE | 2017

Cervical cancer is the second most common cancer among Filipino women. Over the years, there have been great strides made in the eradication of this disease, most notably in the area of prevention. Early screening and treatment led to significant decline in incidence in most first-world countries. However, in third-world countries, screening programs have not yet been widely adopted. Thus, cervical cancer remains to be a significant health problem. Women in correctional facilities are especially vulnerable to insidiously developing this disease since they do not have access to regular OB-Gyne services. This study determined prevalence of high-risk individuals for cervical cancer among female inmates detained in the BJMP GK-Ray of Hope Village. Two hundred six inmates were initially screened using a risk assessment tool detailing 10 known risk factors for cervical cancer. Those with a score of one to three were classified as low risk, four to six as moderate risk, and seven to ten as high risk. All high-risk individuals were subsequently subjected to further testing with Visual Inspection with Acetic acid (VIA). Among the respondents, 12% were classified under high risk. These high-risk respondents underwent Visual Inspection with Acetic Acid. All of those tests had negative results. This means that their chance of developing cervical cancer in the immediate future is low. But because they have numerous risk factors, they would still benefit from cytologic testing every three years or cytologic testing with HPV DNA testing combined, every five years, as recommended by the American College of Obstetricians and Gynecologists.

Keywords: *cervical, OB-Gyne, DNA, cancer, visual inspection, Acetic Acid*

Hypertensive Adults in Purok 3A, Barangay Malagos, Baguio District, Davao City

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COLLEGE OF MEDICINE | 2017

One in every four Filipinos has hypertension with increasing prevalence annually. Despite alarming complications of hypertension, a significant percentage (32%) of the Filipino hypertensive have uncontrolled hypertension. CVD ranked 2nd among the leading cause of morbidity in Davao City and a mortality rate of 3, 695 from both sexes. This study provided descriptive information on prevalence of hypertension among adults in the community and factors contributing to its development. Complete enumeration was employed. House to house visit was conducted and blood pressure (BP) readings of adult residents aged 35 years old and above were taken. The list from the Barangay Health Center of diagnosed hypertensive residents was also utilized especially for screening to include only hypertensive residents. The data was collected using a structured interview questionnaire adapted from PhilPEN Risk Assessment and Screening Form. Prevalence of hypertension among the adult population in Purok 3A is 50%. Fifteen out of 30 are hypertensive, 10 were new cases of hypertension. Among the five new cases, only four are enrolled in the community CVD program. Forty percent of the respondents are cigarette smokers or had been exposed to cigarette smoke. Of the 15 respondents who are hypertensive, only two are diagnosed with Diabetes Mellitus Type II, four are overweight and four are obese. Age, sedentary behavior, alcohol, diet, diabetes mellitus, and smoking are risk factors for hypertension. Mass screening for hypertension, health education to prevent substance use, regular exercise, reduction of salty food consumption are recommended.

Keywords: *hypertension, blood pressure, Malagos*

Prevalence of Undiagnosed Hypertension Among Adults in Purok San Isidro Labrador Phase I, Barangay Indangan, Davao City

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COLLEGE OF MEDICINE | 2017

Mass surveillance of blood pressure level was conducted last April 2017 among adults ages 18 years old and above in Purok San Isidro Labrador Phase I, Barangay Indangan, Davao City. The study was proposed in response to the latest community diagnosis with a goal to determine the prevalence of undiagnosed hypertension in the community. This can be used as stepping-stone in formulating customized health programs for prevention and/or management of hypertension, specifically targeting those who are at increased risk. Fifty two (43%) out of 120 respondents, had normal blood pressure levels, while 26 respondents (22%) were identified with prehypertension. There were only 31 respondents (26%) with Stage I hypertension, the youngest was a 47-year-old female and the oldest was a 65-year-old female. Hypertensive participants were further divided into the oldest was a 65-year-old female. Hypertensive respondents were further divided into either diagnosed or undiagnosed cases. Among those individuals with undiagnosed hypertension, nine out of fourteen respondents had blood pressure level of 150/90 mmHg, who were categorized under Stage II hypertension since they fulfilled the criteria of having a systolic blood pressure of greater than or equal to 160 mmHg or a diastolic blood pressure of greater than or equal to 100 mmHg. The overall prevalence rate for hypertension in the area as of April 2017 was noted to be at 35%, which was greater than that of the national prevalence rate of hypertension in the Philippines. Almost one third of this percentage consisted only of undiagnosed cases.

Keywords: *blood pressure, undiagnosed hypertension*

Describing the Factors Influencing Substance Abuse Among Minor Male Residents in Davao City Treatment and Rehabilitation Center for Drug Dependents

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COLLEGE OF MEDICINE | 2017

Substance abuse is one of the major challenges facing the world today especially with involvement of minor or students in learning institutions. Several factors may influence substance abuse: individual, family, and community factors. Hence the study was conducted to describe the factors influencing substance abuse among minors. Six participants were randomly selected for this study, all of them admitted to Davao City Treatment and Rehabilitation Center for Drug Dependence. An in-depth interview was conducted using the grand tour questions. Data show the age of onset of substance use ranged from 12-15 years old, three of them started at 12 years old, one started at 13 years old and one started at 15 years of age. Most of them had peer pressure as the cause of their substance abuse; using substances with friends, some out of curiosity, and come out of having fun with friends. Most of the participants did not see anything problematic in their family and have been provided with physiological needs however emotional aspects were deprived. All respondents lived in urban community where access to their basic needs as citizens can be easily addressed. They all claimed that majority of their close friends are in the neighborhood and that all of their friends smoke cigarettes, drink alcohol and use marijuana with them. They also claimed that the source of marijuana is just in the neighborhood either from a friend or from an acquaintance who is a supplier.

Keywords: *Substance abuse, minors, Davao City Treatment and Rehabilitation Center*

Cardiovascular Disease Risk Profiling of Adults 40 Years Old and Above in Superblock 3, Barangay 22-C, Poblacion District, Davao City

Mohanraj Rajkumar, Jebadurai Jenish, Narayanaswamy Nithya, Murugesan Niranjana Devi

COLLEGE OF MEDICINE | 2017

Cardiovascular diseases (CVD) are the primary killer worldwide. The incidence of CVD is related to the occurrence of risk factors such as Diabetes mellitus, dyslipidemia, smoking, obesity, alcohol, Hypertension, lack of physical activity and unhealthy dietary habits. The research determined the cardiovascular disease profile of adults aged 40 years old and above in Superblock III, Barangay 22-C, Davao City. A quantitative study design with purposive sampling was used. The validated questionnaire was based on the CVD program Diabetes Screening Questionnaire and the (PHIL PEN) Risk Assessment and Screening Form. After obtaining the past medical history, anthropometric measurements, average Blood Pressure, random blood sugar result, family history, the WHO/ISH Risk prediction charts (WPR B) were drawn. Of the 27 participants, 17 are females and 19 respondents had more than two to three servings of vegetables, 19 also spent less than 2.5 hours a week in exercise. Twelve of them drinks alcohol, nine have a high risk of acquiring diabetes due to the presence or more than two factors. Three participants were found to be diabetic based on random blood sugar readings. WHO/ISH Risk prediction charts show that 25 participants had a less than 10% risk of CVD. Overall, the results denote that the respondents have a low risk of developing cardiovascular diseases.

Keywords: *cardiovascular disease, blood pressure, blood sugar, Barangay 22-C, Davao City*

Health Profile of Male and Female Betel Nut Chewers and Non-Betel Nut Chewers at the Age of 18 years old and above in Haran, Fr., Selga Street, Barangay 8-A, Madapo, Davao City

Aquino, J. M. R., Atabug, C. J. R., Bataga, J. I. V., and Das, A.

COLLEGE OF MEDICINE | 2017

Betel nut chewing has been embedded in the cultural tradition of indigenous people in Mindanao since time immemorial. However, documentation on the potential deleterious side effects of betel nut chewing has not been documented. Using a descriptive quantitative study design, 64 participants currently housed at UCCP HARAN were involved. Information on demographic data, health history and side effects of betel nut chewing were obtained. Anthropometric measurements such as middle upper arm circumference, waist circumference, body mass index, fasting capillary blood glucose and blood pressure, were also taken as parameters for health status. Mean age of the participants is 30.89 years old. Bronchial asthma was pertinent in their past medical and family histories. Most of them were non-smokers and non-alcoholic beverage drinkers and they identified dizziness as the most observed side effect of betel nut chewing. Although most of them had normal health status based on the indices stated, individuals who have health risks and co-morbidities identified should not be overlooked. Considering the scarcity of resources in developing countries, this serves as a driving force for the local healthcare teams to do reliable, fast and cost-efficient screening methods to address the needs of the less privileged ones effectively.

Keywords: *Betel nut, health profile, descriptive quantitative study*

Quality Water Analysis of Drinking Water Samples from Purok Kawayan Barangay Tamugan, Marilog District, Davao City

Banga, R. N. C., Beltran, J. P. A., Berguia, B. M. T., Boiser, A. L., and Calma, C. P.

COLLEGE OF MEDICINE | 2017

The descriptive study design was used to evaluate the possibility of lack thereof of the safety in drinking from the main water source in Purok Kawayan, Marilog District, Davao City. The main water source in Purok Kawayan, Marilog District, Davao City was classified as Level II and currently supplies at least 50 households in the community through its two communal pipes which are located 300 meters and 500 meters away respectively from the source. Surrounding the water origin, the superior and posterior portions of the supposedly safe reservoir was concealed by soil due to erosion during seasonal heavy rains. There were no fences and proponents noticed plastic wastes about one to two meters away from the reservoir. Physiochemical analysis (turbidity, color, odor, and pH) of the water sample noted that the water sample obtained from the main water source had a color of less than 5.0 PCU, the turbidity was not detectable and it had a potential of Hydrogen at 25.0 C of 7.29 which implies an unobjectionable and clear water with a potential of Hydrogen within the recommended range. On turbidity and potential of Hydrogen, results caused it to be seen that the turbidity of the water sample falls way below the recommended standard set by the Department of Health. On microbiological analysis, the sum total coliform count obtained from the water sample in Purok Kawayan was 23.0 MPN/100 milliliters which exceeds the recommended safety standard range by the Department of Health and is said to be at risk to be contaminated.

Keywords: *Water, Barangay Tamugan, Physiochemical Analysis, Turbidity, pH*

Knowledge, Attitude and Practices of Hypertensive Individuals in Purok 6, Bankerohan Barangay 5-A, Poblacion District, Davao City

Madesh Arunkumar, Mariadoss Simonraj, Maria Dhasan Antrofelix, Logasundaramoorthy Ramkumar

COLLEGE OF MEDICINE | 2017

This study was conducted in Purok VI, Barangay V-A, Bankerohan, Davao City to determine the knowledge, attitude, and practices regarding hypertension. Of the 83 individuals identified as aged 40 years old and above based on the initial data gathered from the community diagnosis, 19 were screened hypertensive and participated in this study. A quantitative study was used and a survey questionnaire was utilized. Results showed that majority of the participants are in the 51 to 60 age group, 12 are males, 17 are married and 11 reached high school level. Fourteen out of 19 respondents have a family history of hypertension while 16 out of 19 respondents consume alcohol. Mean SBP upon interview was 142.76 mmHg and mean DBS was 98.78 mmHg. Thirteen out of 19 respondents were diagnosed hypertensive by a health professional and nine were undiagnosed. while 19 know that hypertension is having blood pressure more than the normal level. Headache, pain on the nape and dizziness were the top three symptoms of hypertension according to the participanats while one respondent reported to not know the symptoms of hypertension. Seventeen out of 19 are aware that normal BP is 120/80 mmHg, and are aware that sedentary lifestyle, diet particularly high fat and high salt intake and obesity are risk factors for hypertension and also aware that obesity is a modifiable risk factor for hypertension. Ten out of 19 respondents claimed that smoking is a modifiable risk factor. Twelve out of 19 respondents believed that alcohol is a modifiable risk factor.

Keywords: *community diagnosis, knowledge, attitude, practices, hypertensive, Bankerohan*

Epidemiologic Study of Acute Gastroenteritis in Barangay Buda, Marilog District, Davao City

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COLLEGE OF MEDICINE | 2017

Diarrhea remains an important cause of morbidity among children aged five years and younger. Despite the availability and easy access to treatment solutions to diarrhea, it is still considered a notorious killer of children. In Barangay Buda, cases of acute gastroenteritis have been reported and some children were even admitted to the Buda Community Health Care Center hence this study deals with the epidemiologic profile of these cases in the said health facility from August 2016 to August 2017. Twenty three cases were recorded, showing that acute gastroenteritis is common among male children aged zero (0)- five (5) years old. Among the twelve (12) political subdivisions that comprise Barangay Buda, admitted cases were located to have been residing in political subdivisions one (1), two (2), three (3), four (4), and seven (7), with political subdivision two (2) having the most number of cases with acute gastroenteritis. The entire barangay of Buda utilizes spring water as their water source via a level two (2) water system, with the main reservoir located in political subdivision two (2). The researchers have a great reason to believe that the reservoir can possibly be the source of the infection of this plethora of acute gastroenteritis cases as per evidence of the increased number of cases in political subdivision two (2).

Keywords: *diarrhea, Barangay Buda, gastroenteritis, epidemiologic*

Report on Hypertension Affected Individuals in ADAP and CVD Program

Bharathi Jude Angelus, Navya Jyothi Annapareddy, Inigo Jaisingh Arokiaraju, Santhosh Ram Asokan, and Ram Avvari

COLLEGE OF MEDICINE | 2017

Hypertension is an "iceberg" disease. It is important to be aware of it and to have a good updated CVD community for better prevention if not management of its complication. Association of Differently Abled Persons (ADAP) is a community designed to serve and cater to the needs of Persons with Disability (PWD), located in Santa Cruz, Purok Indangan Barangay, Buhangin district. Despite being integrated with CVD programs of barangay, an increase in the number of morbidity and mortality through cardiovascular disease especially due to hypertension in ADAP was noted. Using a descriptive study design, individuals 40 years and above were involved in the study. The goal is to detect & control high blood pressure in affected individuals. This study also aimed to benefit the ADP community, considering that CVD status identification plays a vital role in the control and prevention of hypertension. Participants in this study area are aware of the consequences of uncontrolled hypertension. Except for one, all of the subjects are in maintenance medication. They all go for regular follow up check up and get maintained regularly. There are problems in adherence to the affected individuals' side. Physician's availability is also a concern. However, regular dispensing of medicines is practiced.

Keywords: *hypertension, Indangan, high blood pressure, maintenance*

Knowledge, Attitude and Practices on Waste Management In Purok-8, Barangay 10-A, Davao City for the Year 2017

Apurva Tyagi, Jerlin Prasanna Victor Selvarj, Pooja Vijayan, Sushmitha Viswanathan

COLLEGE OF MEDICINE | 2017

Municipal solid waste (MSW) is the most important service a city must provide. However, this service ultimately falls within the local government's purview. Poorly managed waste is a vital risk factor in our growing generation and a further predictor for many vector-borne diseases. The researchers' goal was to provide a demographic profile of households practicing proper methods of waste segregation and disposal. It will give an idea for future LGU plans and projects concerning Waste Management. The study was conducted in Purok VIII, Barangay 10-A, Davao City. Among 185 households, 50 households were interviewed on the basis of availability. A descriptive study was used for data collection and a survey questionnaire was utilized. Majority of the respondents fell into the age category of 18 to 32 years of age. Majority of the participants are female (68%) and male respondents account to 32%. Almost half of the respondents of the survey scored above 70% that was taken as adequate knowledge on proper waste segregation and disposal. Evaluation with regards to the attitude of waste management showed that majority of the respondents strongly agreed that improper waste management is a problem of this community. Also, most of the people acknowledged their responsibility for proper household waste management. It is also evident from the survey that majority of the households throw their waste outside and burn the wastes outside the house.

Keywords: *knowledge, attitude, practices, waste management, Barangay 10-A, Davao City*

Knowledge, Attitude and Practices of TB-diagnosed Patients towards Tuberculosis in Purok San Cinvente, Barangay Agdao Proper, Agdao District, Davao City

Irene Ebenezar, Illakiya Gajendran, Xavier Tom Francis, Akshay Dupelley

COLLEGE OF MEDICINE | 2017

Tuberculosis remains a major global health problem, ranking as the second leading cause of death from an infectious disease Worldwide. This study determined the knowledge, attitude, and practices of TB-diagnosed patients towards Tuberculosis in Purok San Vicente, Barangay Agdao Proper, Agdao District, Davao City through a descriptive study design using a questionnaire as data collection tool. The researchers aimed to help the health care workers to assess the public about the level of knowledge, attitude, and practices towards TB and educate them. They also intend to facilitate the patient's acceptance of their diagnosis and understanding their behavioral changes required for active participation in the treatment. This study included 11 participants diagnosed with TB. Generally, the community heard about TB. However, they had little information about the cause of TB, as a significant number of the participants perceived that cold air or smoking causes the disease. There is good knowledge of the signs and symptoms of TB. The community do not have much knowledge about mode of transmission of TB as well as its prevention. They understand that the drugs given at the health center are the effective treatment method of the disease. They agree that TB is a severe disease both individually and in the community. They are afraid, sad, and embarrassed once they know they have TB. There is no discrimination against TB patients in the community. They go to a health facility if they found out they have TB symptoms.

Keywords: *knowledge, attitude, practices, TB-diagnosed, Barangay Agdao Proper*

Reducing Stigmatization and Discrimination Against Prostituted Women in Davao City Myth or Reality

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COLLEGE OF MEDICINE | 2017

Prostituted women are the most stigmatized and discriminated women all around the world, even in Davao City. Being the case, they do not gain easy access to facilities and services which other individuals received. Davao City has recently implemented several ordinances and laws for the welfare of prostituted women. Many government and non-government organizations have been coming forward to assist this community. Currently, the state of Davao City in terms of reduction of stigmatization and discrimination against the prostituted women is unknown. This study mainly focused on the above-mentioned fact and revolves around two different communities of people one involving the prostituted women and the other involving the people from the organizations who support these women. The study was conducted at Talikala, Davao City which involved six participants: three prostituted women and three members from organizations. The participants were interviewed individually using a key informant guide questionnaire. Data show that stigmatization and discrimination have been reduced to some extent in Davao City. Even though the government and NGO's are taking steps to nullify the stigmatization and discrimination faced by prostituted women, the main problem lies with the mind of the people in the society.

Keywords: *prostituted women, stigmatized, discriminated, life, Davao City*

Awareness, Practices, and Attitude on Solid Waste Management of Households of Purok 1 Barangay 36-D, Davao City

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COLLEGE OF MEDICINE | 2017

Improper garbage disposal is a significant problem in the community, most specifically at a local level Purok 1, Barangay 36-D, Davao City. The community's vacant grounds has become a permanent spot for garbage disposal, and no action was taken by pertinent authorities about it. The study determined the awareness, practices, and attitude of residents regarding waste disposal. A mixed descriptive study using both quantitative and qualitative approaches were employed for data collection. Forty five respondents representing 45 households participated in the study. Majority of the respondents were 58 years old and above. Female respondents (64%) were more than male respondents (36%). Most of the respondents had more satisfactory awareness of garbage disposal when they attended Barangay Health Centre programs on garbage disposal. They are also aware of segregating their waste into biodegradable and non biodegradable waste. All of the residents practiced waste segregation. Results showed that majority of the respondents had a right level of awareness, proper practices, and positive attitude regarding waste disposal.

Keywords: *Awareness, practices, attitude, sanitation, solid waste management, effect on health*

Factors that Influence the Adolescents to Smoking in Purok 6, Barangay Lapulapu, Maco, Compostela Valley

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COLLEGE OF MEDICINE | 2017

Smoking causes an increase in respiratory disease, cancer, and cardiovascular disease. Anti-smoking campaigns are also being implemented by local government units. The data however showing factors that influence previously non-smokers to smoke, is scanty. The study determined the influences of smoking of the adolescents in Purok 6, Barangay Lapu-lapu, Maco, Compostela Valley. It also determined the demographic profile of the respondents. This study utilized a descriptive quantitative research design with purposive sampling technique. This study included 35 participants belonging to 10 to 19 years old age group who had cigarette smoking experience and non-cigarette smoking experience. Results revealed that the respondents have the knowledge that smoking has bad effects on their body, most of them do not go with smokers, does not like smoking and do not like cigarette. Main factor considered as source of smoking practices involves the family, the father being the common culprit. Despite this fact, family members who are smoking do not encourage their younger generation to go into smoking. Positive reinforcement should be made of non-encouragement towards smoking and a cessation program for the smoking family members.

Keywords: *factors, influence, adolescents, smoking, Maco, Compostela Valley*

Analysis of Asphyxia-related Deaths, in Particular due to Hanging, in Davao City from 2014-2016

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COLLEGE OF MEDICINE | 2017

In spite of the advancement in medical facilities, natural end of life is inevitable. But for some persons, death is destined earlier in an unnatural way, by choosing to commit suicide. Several methods for committing suicide are known including poisoning, hanging, self-immolation, drowning, etc. Hanging provides painless death so it is one of the commonly adopted methods for suicide. This study determined the incidence of asphyxia-related deaths, particularly, asphyxia due to hanging in Davao City from January 2014 to December 2016. The researchers desired to provide information and educate the community about the common age-group, gender, civil status and causes of asphyxia in order to create ways and means to assist the victim and lessen the incidence. This study used a retrospective design utilizing records from the medico-legal department of the city. Results showed that there were a total of 282 cases of asphyxia-related deaths from 2014-2016, and out of that 133 were due to hanging. Cases involving males is higher than those of involving females. Most of the victims were single, skilled workers, from the age group between 21-30 years old. Nylon was the number one material used, depression was the most common reason, and district 3 of Davao City had the highest incidence with peaks on April and August. More than 90% refused to undergo an autopsy.

Keywords: *Asphyxia, deaths, Hanging, retrospective design*

Smoking Behaviour Among Hypertensive Smokers in Purok Zone-5 Fatima, Sasa, Davao City For The Year 2017

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COLLEGE OF MEDICINE | 2017

Tobacco use is one of the main risk factors for several chronic diseases. In the Philippines, 17.3 million Filipino adults age 15 years and older are current tobacco smokers. This study determined the smoking behavior among hypertensive smokers. A descriptive design study was employed and a survey questionnaire was utilized for data collection. The study was conducted in Purok Zone-V, Fatima, Sasa, Davao City. Among 100 households, 80 households were interviewed who had at least one smoker as member. Only 28 of these participated in the interview: 25 are male and three are females. Data revealed that the reasons for smoking regularly include: members feel relaxed while smoking (16), members are craving for cigarettes (4), members enjoy smoking (4), and reasoned less stressed while smoking, smoke to fit with others, focus and concentrate better, and smoking is pleasurable (4). Data also revealed top three reasons why the participants continued smoking after their initial experience include: smoking relaxed me (16), craving for cigarettes (4) and I enjoyed the taste (4). Among 28 smokers, 10 members like to stop smoking, 10 members don't want to quit and the remaining eight members are not sure to quit smoking.

Keywords: *Smoking behavior, hypertensive smokers, sticks, Fatima, Sasa, Davao City*

Knowledge, Attitude, and Practices Towards Children With Autism of Community in Purok-4, Barangay 28-C

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Autism is a disorder of neural development, characterized by impaired social interaction, communication, and by restricted, repetitive behaviors. Children with autism normally are difficult to distinguish from typically developing children. Unfortunately, the public is not very educated about autism. This study provided insight into the knowledge, attitude, and practice of the community towards children with autism. This study was a descriptive research approach with three sets of questionnaires to determine the knowledge, attitude, and practice of the community. Based on the formulated questionnaires, data revealed that most parents have inadequate knowledge about autism. In general, attitudes regarding the needs and care of children with autism were on average fairly neutral or slightly favored on improvising the educational and social needs for children with autism. The scope of practice towards the autistic child was wide when the respondents had a different way of management, the disciplinary method and the role of education in their upbringing. Data reflect deficits in knowledge about childhood autism among the participants.

Keywords: *knowledge, attitude, practices, autism, community diagnosis, Barangay 28-C, Davao*

Socio-Demographic Characteristics and Level of Knowledge on Dengue Fever, Malaria, and Typhoid Fever among Residents of Purok 1, Barangay Buda, Marilog District, Davao City

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The generation of household wastes has long been a global concern. The imminence of indiscriminate waste disposal has led to environmental hazards of varying magnitudes threatening human lives all over the world. It is therefore undeniable that an extensive list of potential etiologic agents of various diseases can be acquired from the environment, due to a number of factors including the diverse practices of individuals. This descriptive quantitative study determined the socio-demographic characteristics and level of knowledge on dengue fever, malaria, and typhoid fever among Residents of Purok 1, Barangay Buda, Marilog District, Davao City. It also determined the level of awareness on health-related consequences of improper waste disposal. Ninety eight respondents age 18 years old and above were included in the study. An interview guided questionnaire adopted from Malaysia Morbidity Survey was utilized to determine the level of knowledge of participants with regards to health-related consequences of improper waste disposal such as dengue fever, malaria, and typhoid fever. Results showed many of the participants had a poor level of knowledge with regards to dengue fever, malaria, and typhoid fever. This implied that they are able to retrieve or recall previously learned knowledge about the diseases mentioned above, however, few of them got good and excellent on the level of knowledge which indicates that some are able to grasp or construct meaning from previously learned knowledge about the disease or able to apply previously learned knowledge in new or concrete situations.

Keywords: *knowledge, dengue fever, malaria, typhoid fever, Barangay Buda*

Family Planning Knowledge, Attitude & Practices Among Women with Unmet Family Planning Needs in Purok Parola, Barangay Sasa, Buhangin District, Davao City, Philippines

Ansa Rose Babu, Aishwria Rajesh Gargatte, Sakhi Sanjeev Mago, Sara Mathew Kovoov

COLLEGE OF MEDICINE | 2017

Family planning refers to the use of modern contraception and other methods of birth control to regulate the number, timing, and spacing of human births. It allows the parents, particularly mothers, to plan their lives without being overly subject to sexual and social imperatives. The unmet need for contraception can lead to unintended pregnancies, which pose risks for women, their families, and societies. A significant number of women say that they do not want another child but are not using any method of contraception. This study measured the family planning related knowledge, attitude, and practices among women of reproductive age with unmet family planning needs in Purok Parola, Barangay Sasa, Buhangin District, Davao City using a questionnaire. There were 20 participants included in the study. The attitude analysis of the women disclosed that they are mostly against contraception use, that is to say, they are unwilling to use family planning methods. The attitudes include failure to overpower the husband's authority, religious inclinations, and fear of side effects. Only about 50% of women are willing to start contraception use. The practices of these women regarding a missed period vary from taking action and visiting a doctor to not doing anything at all. These women also justify the non-usage of contraception in their personal lives.

Keywords: *family planning, contraception, knowledge, attitude, practices, Barangay Sasa*

Prevalence of High Risk Individuals for Cervical Cancer Among Davao City Female Jail Inmates

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COLLEGE OF MEDICINE | 2017

Cervical cancer is the second most common cancer among Filipino women. Over the years, there have been great strides made in the eradication of this disease, most notably in the area of prevention. Early screening and treatment have led to a great decline in incidence in most first-world countries. However, in third-world countries, screening programs have not yet been widely adopted. Thus, cervical cancer remains to be a significant health problem. Women in correctional facilities are especially vulnerable to insidiously developing this disease since they do not have access to regular OB-Gyne services. This study determined the prevalence of high-risk individuals for cervical cancer among female inmates detained in the BJMP GK-Ray of Hope Village. Two hundred twenty six inmates were initially screened using a risk assessment tool detailing 10 known risk factors for cervical cancer. Those with a score of one to three were classified as low risk, four to six as moderate risk, and seven to ten as high risk. All high-risk individuals were subsequently subjected to further testing with Visual Inspection with Acetic acid (VIA). Among the respondents, 12% were classified under high risk. These high-risk respondents underwent Visual Inspection with Acetic Acid. All of those tests had negative results. This means that their chance of developing cervical cancer in the immediate future is low. However, because they have numerous risk factors, they would still benefit from cytologic testing every three years or cytologic testing with HPV DNA testing combined, every five years, as recommended by the American College of Obstetricians and Gynecologists.

Keywords: *Cervical cancer, Filipino women, prevalence, high risk, Hope Village, Davao City, inmates*

Suspected Typhoid Fever Cases in Buda Community Health Center, Buda, Marilog District, Davao City from August 2014 to July 2017

Tayong, S. O. J., Velasco, C. A. M., Villaver, J. L. T., and Murugan Baskar Vijaya

COLLEGE OF MEDICINE | 2017

Admissions of patients with suspected typhoid fever, a potentially fatal multisystemic illness, has been increasing in Buda Community Health Center. Typhoid fever is known as enteric fever, that is a potentially deadly multisystemic disease caused by *Salmonella enterica*, subspecies *enterica* serovar *typhi*, which is a major human pathogen for thousands of years. The pathogenic agent of this disease spreads through feces or urine contaminated food or water and occasionally through direct contact with someone infected. This descriptive study determined the prevalence of Typhoid Fever admission in Buda Health Center from August 2014 to July 2017. Data on demographics (age and sex) case distributin in terms of time or year of diagnosis and place of residence, and treatment outcomes were obtained. A total of 275 suspected cases have been identified during this timeframe, with predominance among males and children aged between five to nine years old. December 2014, October 2015, and March 2017 were the months with the highest number of cases, and Sinuda, Kitaotao, Bukidnon was the place of residence where most of these patients came from. Lastly, 96% of these admitted cases have improved and there was no mortality recorded.

Keywords: *typhoid Fever, Treatment Outcome, Marilog District*

Dengue Knowledge and Preventive Practices of Residents in Purok Marang and Avocado, Brgy. Wines, Baguio Dist., Davao City

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COLLEGE OF MEDICINE | 2017

In at least 100 countries in Asia, the Pacific, the Americas, Africa, and the Caribbean, Dengue had been endemic. In the Philippines, there is an increasing trend in reported dengue cases, including Davao City. In Purok Marang and Avocado, Brgy. Wines, there is an increasing number of dengue cases compared to last year, which has none. This study described the dengue-related knowledge and preventive practices of the residents in Purok Marang and Avocado. This study utilized a descriptive cross-sectional design and included 63 households. Only household members who were 18 years old and above were interviewed. Data revealed that majority of the respondents who are knowledgeable about Dengue were females, married and aged 60 and above and had a high school level of education. Among the symptoms of Dengue, pain behind the ears was the least known among the residents (55%). The respondents have relatively high knowledge regarding dengue preventive practices. Overall, the community has excellent knowledge of Dengue but only has fair preventive practices. Most respondents practice prevention by the elimination of mosquito breeding sites than the prevention of mosquito bites. Both eliminations of mosquito breeding sites and prevention of mosquito bites are needed as preventive measures to ensure lower dengue incidence.

Keywords: *dengue, knowledge, practices, Barangay Wines, Baguio District*

Knowledge, Attitude and Practices of Families with Previous Experience With Dengue in Puroks Socorro and Landmark 2

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COLLEGE OF MEDICINE | 2017

Dengue is an infectious disease causing significant morbidity and mortality in tropical countries like the Philippines. The incidence of dengue increased ten-fold from the previous year despite efforts in dengue surveillance and control. It is of interest to know how the disease has changed families who have had experiences with dengue in terms of knowledge, attitude, and practices. This study employed a descriptive cross-sectional study design using an individual structured interview among families in Puroks Socorro and Landmark II who have had at least one family member diagnosed with the disease in the past. Ten families were identified through purposive sampling from a preliminary survey. The knowledge of the respondents regarding the transmission, manifestations, and prevention was adequate. However, the participants still has inadequate knowledge of the vector. The television is the most common source of information. The participants had the right attitude towards dengue, and consider it as a severe threat, and prevention should be approached as a community. Their preventive practices are generally good, and breeding site elimination is regularly done. Control efforts against adult vectors are observed less often. It is recommended that local healthcare workers need to reinforce knowledge on the dengue vector and on more effective ways in preventing the spread of the disease. There is also potential to spark a community-based organization devoted to monthly surveillance and control of dengue in the said puroks.

Keywords: *knowledge, attitude, practices, families, experience, dengue, Purok Socorro*

Life and Practices of a Traditional Healer in Davao City

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COLLEGE OF MEDICINE | 2017

The Philippine culture is awash with religiosity with fascination and disposition for the supernatural and mystical, as reflected in the perseverance of traditional faith-based healing. In rural areas, by tradition and because of chronic economic constraints, the mananambal (traditional healer) is the general practitioner and primary dispenser of health care. In a barangay far from the crowded streets of Metro Davao, there lives a traditional healer known to have cured several illnesses by employing indigenous methods. This study presents extracts of the life story, experiences, and healing practices of this traditional healer. This study made use of a qualitative approach and collected data through participant observation and in-depth interview. This mananambal served as the key informant who was selected because of his popularity in healing. The use of open-ended questions in the local dialect and naturalistic observation provided a verbatim account and narrative of his life and healing practices. Triangulation was done through an interview with his wife, who is a known pilot or traditional masseuse in the community. Inheriting his father's skills and knowledge, he utilized prayers, medicinal oil, herbal preparations and tayhop(gentle blowing), in treating patients who suffered from snakebites, cellulitis, rashes, dengue fever, and more. A list of medicinal plants is provided as a reference for future studies. Out of the 10 herbal plants used by the mananambal, only two are endorsed by the Department of Health: Lagundi and Bayabas. His revelations show and reiterate the gnawing need for medical drug research and industry in the Philippines.

Keywords: *Mananambal, traditional healing, herbal medicine*

Knowledge, Attitude, and Practices among Hypertensive Individuals in Purok 7, Bankerohan Barangay 5-A, Poblacion District, Davao City

Sylvia Vaidooria Kanishkar, Sailatha Kadiri, Anitha Komareddy, and Jabez Branham Kollapudi

COLLEGE OF MEDICINE | 2017

This study was conducted in Purok VII, Barangay V-A, Bankerohan, Davao City. Of the 104 individuals identified as aged 40 years old and above based on the initial data gathered from the community diagnosis, 27 were screened to be hypertensive and participated in this study. This study determine the knowledge, attitude, and practices regarding hypertension. A quantitative study was used for data collection, and a survey questionnaire was utilized as the research instrument. The mean SBP upon interview was 142.76 mmHg/ while mean DBS was 98.78 mmHg. Eighteen out of 27 participants were diagnosed hypertensive by a health professional, and nine were undiagnosed. Headache, pain on the nape and dizziness were the top three symptoms of hypertension according to the participants while there was one respondent who did not know the symptoms of hypertension. Majority of the participants have a right attitude towards hypertension. More than 96% of participants agreed that hypertension could be controlled by medications and lifestyle modification such as exercise. Many perceived medications and exercise as the only interventions moderately effective at preventing high blood pressure. Lowering the salt intake is the most common preventive measure reported from the participants along side with keeping an active lifestyle as well intake of fiber-rich diet. More than half of the participants do not take any medications for hypertension, and 17 out of 27 respondents do not have their BP measured weekly. The main reason for this is due to poor medical seeking behavior.

Keywords: *knowledge, attitude, practices, hypertension, blood pressure*

Modifiable and Non Modifiable Factors of Hypertension Among Hypertensives in Purok

Vinusha Vijauakumar, Aashini Vujayakumar, Arati Trivedi, and Barkha Vimal

COLLEGE OF MEDICINE | 2017

This study reports the modifiable and non- modifiable factors of hypertension among hypertensive individuals of Purok San Antonio of Agdao Proper of Davao City. Modifiable factors of hypertension is described in terms of smoking, alcohol consumption, obesity, measured in terms of waist circumference and body mass index, type of diet, exercise defined as 150 min of aerobic exercise or 75 min of vigorous physical activity in a week and stress defined as physical psychological, emotional and financial stress. Fifty two participants were involved: 16 males (31%) and 36 females (69%). Participants' blood pressure were measured using an electronic bp monitor. Anthropometric measurement included weight, height, and waist circumference. Twenty three (44%) participants were prehypertensives, 18 (35%) are in stage I hypertension, and 11 (21%) in stage II of hypertension. The nonmodifiable risk factors found in the majority of the hypertensive participants were age greater than 35 years, female, sex, and family history of hypertension. The modifiable risk factors identified in the majority of study participants are diet such as chicken or pork, female having a waist circumference greater than 88 cm, and lack of exercise. The modifiable factors found in minority of the study participants is smoking, alcohol, body mass index greater than 24.9 and waist circumference greater than 102 cm in men.

Keywords: *modifiable, hypertension, San Antonio, stress, health*

Regret Never Comes at the Beginning; It Always Comes at the End of Every Story: Aling Mercede, a Mother of Seven

Pilay, G. T., Polog, J. B., and Porras, B. P.

COLLEGE OF MEDICINE | 2017

There may be a lengthy list of factors that contribute to unmet family planning in a couple. Family planning however is supposed to be done by the husband and the wife. This study identified contributing factors of the unmet family planning needs of a mother through exploring her story and life experiences that led her to her current situation. Specifically, the study determined the impact of unmet family planning particularly the family's welfare and needs; its effect on the couple's relationship; and her views on unmet family planning. This also focused on the cause of why family planning practice seems to fail despite absence of desire for another pregnancy. A 38 years old mother with seven children was selected and interviewed in purok Mangga. An in-depth interview was done with authorized recordings and transcription of the conversations. Interview results revealed that: economic and demographic factors, knowledge, attitudes, and beliefs towards family planning, family and husband support, couples' preference, maternal health and availability of family planning services are factors contributing to unmet family planning needs. This study recognizes the importance of proper family planning and the impact of its non-use and can contribute to the general public to become more aware of unmet family planning needs of its constituents and offer them assistance and knowledge about the different family planning methods.

Keywords: *family planning, factors, life experience*

"May Alak Ka Pa sa Labi": A Story of Three Boys

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COLLEGE OF MEDICINE | 2017

The increasing number of underage drinkers in Purok Tinago has alarmed community members as this caused problems brought about by defiant and offensive behaviors. Alcohol has also caused ill-effects in the children's personal lives, which could lead to damaging outcomes that they are currently unaware of and that they may come later on regret. Alcohol has been linked to more than 200 different diseases, conditions, and injuries, such as poisoning, heart diseases, obstetrical complications, cerebrovascular accidents, liver cirrhosis, HIV and sexually transmitted disease among others. This being said, the study accounted the lived experiences of alcohol drinkers less than 19 years of age in the said purok. A qualitative study was utilized using a case series of three boys who had the first-hand experience on the said issue. For verification, triangulation of sources was implemented with the researcher, the participant, and the social worker as the components. Most significant stimulus for experimentation on drinking is their peers, with most of the members being of older age than them, having more experience. They were invited and forced to drink initially, and none refused with the mindset of preventing social isolation. It is hoped that the participants, community, health sector and the society at large would be able to gain insight from this study in order to address the issue not only in the said purok, but in every area where this matter is rampant.

Keywords: *underage drinking, causes, issue*

Reasons of Non-Utilization of Modern Family Planning Methods Among Adults of Reproductive Age in Purok 10, Doña Salud Subdivision, Barangay Sasa, Buhangin District, Davao City

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COLLEGE OF MEDICINE | 2017

This study identified reasons of non-utilization of modern family planning among adults in the reproductive age in Purok 10, Doña Salud, Barangay Sasa, Buhangin District, Davao City. Seventy-eight respondents were included in the study, comprising of 38 couples. The descriptive study design was used for data collection, and a survey questionnaire was utilized as a research instrument. Results showed that the average age of the male and female respondents who are not using any modern contraception is 40 and 34 years old, respectively. Majority of the respondents are married (29 couples). Majority of the respondents were able to reach secondary education (25 females and 19 males). Currently, 28 male respondents were employed, and 25 female respondents were unemployed and stayed at home. There were ten males and 24 female respondents who initially used contraceptives but discontinued it use, while there were 28 males and 14 females who never used any modern family planning methods. Out of the total study population, 24 adults discontinued, mostly females; and 42 adults never used any modern family planning methods, majority of which are males. For the community, this study can give awareness regarding modern family planning and its effect. Health care providers can also benefit from this study by providing the current data regarding the reasons for non-utilization of modern family planning among adults of reproductive age.

Keywords: *Modern family planning methods, non-utilization, Barangay Sasa*

Therapeutic Adherence of Hypertensive Adults in Purok Crossing Durian

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COLLEGE OF MEDICINE | 2017

Patients diagnosed with chronic diseases given with prescribed medication do not comply with their therapeutic regimen despite clear cut evidence of its benefits, making non-adherence to pharmacologic treatment a medical issue requiring immediate action. Adherence, defined as extent to which a person's behavior-taking medication, following a diet, or executing lifestyle changes, corresponds with agreed recommendations from a health care provider, tends to be low in developing countries causing further disabilities and mortalities. This study determined the therapeutic adherence of Hypertensive individuals in KM 12, Purok Suha. Using a mix of descriptive quantitative-qualitative research design, this study included the whole population of diagnosed hypertensive individuals in Km 12, Purok Suha. Data was gathered through a one-on-one interview using the MMAS 8 tool. Results revealed that majority of the diagnosed hypertensive individuals have low adherence to their medication caused by different factors. Most common factor for the low adherence to their medication was due to forgetfulness to take their medication due to given advancing age. Other factors were from the respondent's lack of knowledge of the disease, lack of understanding about the treatment and its effects, poor health-seeking behavior, and financial constraints. The findings provided by this study may provide awareness of the status of the community in terms of adherence to their medication that can be utilized by the local health center and health care providers to act on problems presented by the community.

Keywords: *therapeutic adherence, Km 12, Purok Suha, MMAS 8, factors, descriptive*

Ectoparasites Infesting Avian Species Visiting Alcon Farms, Tugbok, Davao City

Eugenio, P. R. C., Labastida, J. T., and Salvador, P. D. H.

COLLEGE OF MEDICINE | 2017

Each bird species may have its suite of ectoparasites including lice, mites, fleas, and ticks which plays a vital role in the lives of a bird. A bird's feather serves as an excellent habitat for ectoparasites. Ectoparasites are a diverse group of organisms that inhabit the integument of its host and feed on dead skin cells, tissue fluid, blood, or lymph. Ectoparasites are recognized as important vectors of zoonotic diseases playing an essential role in the transmission of diseases to animals and humans. This study identified the ectoparasites associated with avian species. The study was conducted at Alcon Farms, in Tugbok, Davao City. Dust-ruffling method was used to collect ectoparasites from the birds' feathers. Among the 37 individuals of birds captured, eight were infested with chewing lice. The present data showed that birds do harbor ectoparasites.

Keywords: *ectoparasites, avian species,alcon farms, tugbok*

Entomologic Profiling of Mosquito Larvae in Philippine Eagle Center, Davao City

Lapitan, H. A., Millan, Q. A. V., and Yarra, P. C. G. C.

COLLEGE OF MEDICINE | 2017

Mosquitoes, known to be carriers of vector-borne diseases, remain a public health problem in the Philippines. With this, the researchers conducted an entomologic survey determining the presence and abundance of mosquitoes in selected microhabitats in the Philippine Eagle Center, Davao City. Mosquito collection, with the use of OL Traps designed by DOST, was done on two occasions, on March 29th and April 5th, 2017. The collected larvae species were freeze-killed, taken to the laboratory in 80% ethanol, counted, and were identified through microscopically. A total of 578 mosquito larvae were identified, including six genera (*Aedes*, *Culex*, *Culiseta*, *Orthopodomyia*, *Psorophora*, and *Wyeomyia*); and eight species: 137 (24%) *Ae. Aegypti*, 86 (15%) *Ae. albopictus*, 1 (0.2%) *Ae. atropalpus*, 23 (4%) *Ae. mediovittatus*, and 74 (13%) *Ae. taylori*; 42 (7%) *Cx. salinarius*, and 14 (2%) *Cx. quinquefasciatus*. Only *Culiseta melanura* (0.7%) larvae represented the *Culiseta* mosquitoes. Of the eight identified species, three are of medical importance in the country: *Ae. aegypti*, *Ae. albopictus*, and *Cx. quinquefasciatus*, being known as vectors of some pathogens. Taking these into consideration, it is critical to minimize or prevent the possible impact of these potential vectors of future emerging infectious diseases. The researchers recommend pesticide control in the said research locale, and replace traps with bigger containers to avoid spillage. Further studies must also be conducted regarding entomologic profiling of mosquitoes.

Keywords: *mosquito larvae, entomologic profile, surveillance, microhabitats*

Characterization of the Morphology, Chemical Analysis and Toxicity of *Smallanthus sonchifolius* (Yacon) Tubers

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Yacon (*Smallanthus sonchifolius*), an Andean tuberous root belonging to family Asteraceae, is regarded as a functional food given due to its fructooligosaccharides (FOS), inulin and phenolic compounds contents. Dearth of information is known about its morphological characters, macronutrients and micronutrients it contains and toxicity. This study focused on the morphological, nutritional, and cytochemical characteristics of yacon tuber. Toxicity of yacon was evaluated using brine shrimp assay. Results of the nutritional profiling showed that yacon tuber extract has high potassium content while iron and manganese were not detected. For the cytotoxicity, brine shrimp assay was used, but some factors affected the outcome, which leads to the uncertainty of this test's results. Yacon could be consumed moderately to prevent diseases caused by high potassium levels in the body, like hyperkalemia and kidney related diseases. This study can contribute to future researches about the yacon tuber health benefits and nutrition content, and it can also benefit the general public knowing the toxicity of the plant will educate them regarding the limits of yacon consumption.

Keywords: *Smallanthus sonchifolius*, brine shrimp assay, cytotoxicity, morphology, micronutrients, macronutrients



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