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Technology Acceptance Mode and E-Learning Among Bachelor of Physiotherapy (Hons) Students from Universiti Tunku Abdul Rahman, Malaysia

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ABSTRACT

Electronic learning (E-learning) has been introduced and revolutionized in the education field for decades. In Universiti Tunku Abdul Rahman (UTAR), the Bachelor of Physiotherapy (Hons) degree programme is both campus and clinical attachment based, the implementation of e-learning is combined with conventional education. Despite the implementation of E-learning at University level, the acceptance of e-learning by the UTAR physiotherapy students is limited. Therefore, this research focused on the investigation of the predictors in determining the acceptance of e-learning among the physiotherapy students. Developed by Davis (1989), the Technology Acceptance Model is the theoretical framework that used in this study. A cross-sectional, non-experimental and exploratory study was carried out among the UTAR Bachelor of Physiotherapy (Hons) students registered from year 1 to year 4 and having the accessibility to the databases. There were 169 students participated in this study, TAM questionnaire were analyzed by using descriptive analysis. The proposed hypotheses were analyzed by using simple regression method. The results revealed that the acceptance towards e-learning among Bachelor of Physiotherapy (Hons) student in UTAR is influenced by the perceived ease of use and perceived usefulness. The results suggested that Technology Acceptance Model is applicable in determining the acceptance of e-learning among UTAR Bachelor of Physiotherapy (Hons) students. Perceived ease of use and perceived usefulness are the predictors in determining the acceptance of E-learning among Bachelor of Physiotherapy (Hons) students in UTAR.

High Intensity Interval Training vs. Continuous Aerobic Training on Resting Blood Pressure in Young Sedentary Pre-Hypertensive Adults: A Randomized Controlled Trial

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ABSTRACT

The prevalence of pre-hypertension is increasing in the younger generation due to factors such as physical inactivity, imbalanced diet and increased stress. The likelihood of a pre-hypertensive young adult developing hypertension has been steadily increasing over the past years. In addition to other strategies, aerobic exercise has been promoted widely amongst this population to reduce the blood pressure. However, the question remains which type of aerobic exercise can be more effective. Methods: 30 healthy sedentary young adults (age 19.97±1.10) were randomly divided into 3 equal groups; high-intensity interval training (HIIT), continuous training (CT) and control (CON). HIIT and CT groups underwent 4 weeks of aerobic training on treadmills with CON group not participating in any exercise. The HIIT protocol consists of 1:1 work to rest ratio of participants 80%-90% heart rate reserve (HRR) and 40%-60% HRR respectively for 20 minutes, CT group exercised at 40%-60% of HRR continuously for 20 minutes. Results: In HIIT and CT groups respectively SPB (pre 122.3±3.29mmHg, post 119±3.91mmHg, difference 3.30±2.16mmHg, p=0.001; pre 125.13±3.92mmHg, post 123.67±3.97mmHg, difference 4.7±1.61, p =0.018) was significantly reduced, DBP was significantly decreased only in HIIT group (pre 78.57±5.36mmHg, post 75.73±4.9mmHg, difference 2.83±2.25mmHg, p=0.003). No significant difference in SBP (pre 127.26±4.42mmHg, post 127.05±5.14mmHg, difference 0.21 3.79mmHg, p-value=0.836) DBP (pre 73.91±5.28, post 73.10±5.38mmHg, difference 0.81±4.33mmHg, p-value=0.395) was observed in CON group. Conclusion: Both HIIT and CT helped to reduce the resting blood pressure but HIIT seems to yield more benefits. Based on the ease and preference, an individual can choose either one of them.

The Association Between Body Mass Index and Back Muscle Endurance Among University Students

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ABSTRACT

Many studies have suggested that body mass index (BMI) have a negative impact on back muscle endurance. To determine the association between BMI and back muscle endurance among university students and to establish a reference value of the Sorensen test. A total of 200 healthy university students (100 males and 100 females) aged between 18 to 24 years old were enrolled in this study. Demographic data and basic anthropometric measurements (weight, height and BMI) were taken. Then, participants performed the Biering-Sorensen test to measure their back-muscle endurance level and recorded as isometric holding time (IHT). Pearson correlation analysis and independent t-test were used to investigate the association between BMI and IHT; and the association between gender and IHT respectively. The significance level was set at $p< 0.05$. The mean IHT of all participants was 92.73 ± 35.378s. The mean IHT of BMI categories was 105.59 ± 45.39s in underweight, 97.67 ± 32.08s in normal weight, 85.24 ± 31.59s in overweight, and 64.20 ± 22.64s in obese. There was a moderate negative correlation between BMI and IHT ($r= -0.316$, $p< 0.001$). The mean IHT of a male was 91.35 ± 31.83 s while the female has a mean IHT of 94.11 ± 38.71 s. However, gender difference on IHT was not statistically significant ($p= 0.582$). The higher the BMI, the lower the IHT. UTAR students have relatively poorer back muscle endurance level.

Effect of Laser Irradiation in the Management of Temporomandibular Joint disorders

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ABSTRACT

During the last decade, dramatic advances have been made in understanding the cause of facial pain related to temporomandibular joint (TMJ) disorders. Technical breakthroughs in MRI, arthroscopy, arthrography and X-ray have enhanced the Clinicians ability to diagnose distinct intracapsular TMJ changes associated with facial pain and jaw dysfunction. Treatment of facial pain is also complicated by interrelationship of TMJ Disorders.
This study aims in reducing pain and improving ROM of TM joint through Laser therapy. The finding of the present study may be helpful to the physiotherapist to work more on the facial pain. To investigate the pain reducing effect of laser therapy in TMJ disorders and also to find out the improvement in ROM of temporomandibular joint. TMJ subjects with functional and derangement causes were selected for this study. Before and after 10 sessions of treatment VAS and active mouth opening was used as the outcome measures. Laser therapy proves to be very effective in reducing pain and improving ROM in patients with TMJ Disorders.

Effects of Trampoline Exercise on Attentional Control and Daytime Sleepiness among Young Adults with Anxiety Disorders in Malaysia

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ABSTRACT

Anxiety disorder has been linked to deficient attentional control and sleep problems in young adults. This study aimed to investigate the possible effects of trampoline exercise on attentional control and daytime sleepiness among young adults with anxiety disorders. This single-blinded randomized controlled trial involved 40 young adults with anxiety disorders. All the participants were initially screened for eligibility using Beck Anxiety Inventory and Physical Activity Readiness Questionnaire, and randomly assigned to either an experimental group (n=20) or a control group (n=20). While the experimental group was subjected to trampoline exercise for 4 weeks, all the participants in both the groups were taught deep breathing exercise. Attentional control and daytime sleepiness of the participants were evaluated using Attentional Control Scale and Epworth Sleepiness Scale respectively. The experimental group showed statistically significant improvement in Attentional Control Scale ($p=0.009$) and Epworth Sleepiness Scale ($p=0.005$) compared to the control group. Trampoline training resulted in reduction in daytime sleepiness and improvement in attentional control after 4 weeks of trial. This highlights the potential of trampoline exercise training as an adjunct to established clinical treatment.

Barriers to Physical Activity Participation Among Housewives: A Pilot Study

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ABSTRACT

Worldwide, more than 3 million preventable deaths in 2014 were attributed to physical inactivity rendering it the fourth most common cause of chronic disorders. In Malaysia, surveys found that women are less physically active than men. Although there is much research done focusing on women, limited research has been done from a perspective of a housewife in Malaysia. The objective of this study was to identify the prevalence, barriers and enablers of physical activity among housewives in selected states of Malaysia. A cross-sectional survey was undertaken whereby the participants were recruited through non-probability convenience sampling in Penang and in Selangor. A total of 62 responses was collected and GPAQ was used to identify the prevalence of physical activity. A self-developed questionnaire was used to assess the barriers and enablers. It was found that 41 (66.13%) housewives were having physical activity level lower than recommended levels. Top 3 barriers which were reported by the housewives were, no facilities in the neighbourhood, high cost of gym and no energy for physical activity after house chores. The majority of the respondents also showed a positive attitude in the willingness to attend campaign or talk or workshop about healthy lifestyle and physical activity in the future. The level of physical activity among housewives in Malaysia is low. Most of the housewives were presented numerous barriers that hinder them from participating in physical activity. Further studies in other provinces are required

Balance Training on Ankle Joint Position Sense in Lateral Ankle Ligament Injury of Athletes

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ABSTRACT

Multimodal balance training is often the first choice of treatment in patients with grade II lateral ligament ankle injury; however, the effect of exercise on ankle proprioception is under debate. We investigated the effect of 12-week multimodal balance training on ankle joint position sense using position-reposition test in subjects with grade II lateral ankle ligament injury. This randomized controlled clinical trial; fifty-two young recreationally active athletes with grade II lateral ligament ankle injury who randomised to either a Group A (n=13), Group B (n=13) Group C (n=13) and Group D (n=13). Subjects in the all groups were trained on the affected limb with static and dynamic components using the therapeutic equipment. The passive ankle joint position sense at 15°and 30° of ankle inversion/eversion on the affected limbs were measured at pre, mid, post and follow-up intervention using a bio-dex isokinetic dynamometer 4pro. Mean errors were compared between pre, mid, post and follow-up intervention using repeated measures of ANOVA. At baseline, the significant difference in the mean errors for all subjects was observed only at 30° of ankle inversion/eversion. Just the combined intervention group showed a substantial reduction in mean error on the injured limb following intervention at both 15° of ankle inversion/eversion. At post-intervention, the decrease in mean error in the involved leg was significantly higher in the combined intervention group than other groups at 30° of ankle inversion (P = 0.002). A significant difference in the mean error was observed at 30° of ankle inversion/eversion.

Design and Characterization Pulsatile Drug Delivery System of Losartan Potassium Tablets

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ABSTRACT

The objective of the present study was to design and evaluate time dependent pulsatile delivery systems of losartan potassium pulsatile press coated tablets. Losartan potassium is angiotensin II (AG II) receptor antagonists to treat hypertension. Losartan potassium pulsatile systems are is basically time-controlled drug delivery systems which are designed to mimic the circadian rhythm of the body and deliver the drug at a specific time. Losartan potassium pulsatile tablets were prepared by direct compression method using single punch machine. The prepared tablets were shielded with combination of different grades of HPMC and ethyl cellulose as coated materials. Prepared core and pulsatile tablets were optimized and evaluated for various properties like diameter and thickness, uniformity of weight, hardness, friability, disintegration time, drug content and dissolution rate. Based on the drug release profile losartan potassium pulsatile tablet batch of LH-3 and LH-4 designated as the optimized batch that shows the lag time of 8 to10 hrs. Losartan potassium pulsatile tablets will be taken at bed time, releasing drug in the morning hrs when the symptoms are more prevalent can prove to be a revolution in the treatment of hypertension.

An Innovative Design of a CPR Device for Sudden Heart Failures

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ABSTRACT

Cardio Pulmonary Resuscitation or CPR, is an emergency procedure in which a person presses up and down on the casualty's chest (chest compressions) and give them a series of rescue breathing to help save their life when they are under cardiac arrest. CPR can be done both manually using hands as well as mechanical CPR using a device. The reported incidence of injuries through cardiopulmonary resuscitation using manual chest compressions (manual CPR) is 75.9% and 91.4% in the mechanical CPR type using device. Rib fractures are more common in both the systems. Wrist pain in rescuers performing chest compressions as part of cardiopulmonary resuscitation also has been reported. The rescuers' wrists during the performance of chest compressions significantly strain the scapholunate ligament. To overcome all these problems, we aim at designing and modeling of a novel CPR device. Through simulation techniques, we will arrive at the best design values for all the circuit components. The circuitry for mechanical CPR is broadly divided into mechanical part and electronic part. The electronic part is further subdivided into control part and monitoring part. The circuitry has to be developed and the servomotor will be connected to the circuitry. The servomotor is supposed to give the piston movements with suitable lycra material as a covering material for the piston. This material not only gives softening to the patients but also have lot of medical advantages. With proper designing values, a perfect model of a CPR device can be developed probably with better cushioning effects and a compact finish will be achieved. The developed model will be tested for its performance and will be analysed with all parameters.

Antimicrobial, Antioxidant, Cytotoxicity and Phytochemical Content of the Rhizome Hairs of *Cibotium barometz*

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ABSTRACT

Cibotium barometz (L.) J.Sm. is a tropical tree fern in the family Cibotiaceae. This study aims to evaluate the antibacterial, antifungal and antioxidative activities, cytotoxicity and phytochemical content of the rhizome hairs of *C. barometz*. The hairs were subjected to sequential extraction in order to obtain hexane, chloroform, ethyl acetate, ethanol, methanol and water extracts for bioassays. The ethyl acetate extract showed the strongest antibacterial and antifungal activities among the extracts with minimum inhibitory concentration (MIC) ranges of 0.31–1.25 mg/mL and 0.02–0.31 mg/mL against six species of bacteria and six species of fungi, respectively. It was the only extract showing inhibitory activity against the bacteria Escherichia coli (MIC=0.63 mg/mL) and the filamentous fungus Aspergillus fumigatus (MIC=0.31 mg/mL). In terms of antioxidative activity, the ethyl acetate, ethanol, methanol and water extracts showed strong inhibition (> 80%) in the 2,2-diphenyl-1-picrylhydrazyl (DPPH) radical scavenging assay. The mean (±s.d.) half-maximum inhibitory concentrations (IC50) for these extracts were 6.5±0.4, 24.3±1.3, 32.2±2.5 and 34.4±3.7 µg/mL, respectively. The ethyl acetate extract also exhibited the strongest ferric-reducing antioxidant power (FRAP) with a mean (±s.d.) value of 35.1±1.7 mM Fe2+/mg of extract. Only the chloroform and ethyl acetate extracts were found significantly toxic ($p < 0.05$) towards the African monkey kidney epithelial (Vero) cells with their respective mean (±s.d.) half-maximum cytotoxic concentrations (CC50) of 382.5±8.5 and 316.7±11.0 µg/mL. Phytochemical screening indicated the presence of anthraquinones, flavonoids, tannins, phenolics, phytosterols and triterpenoids in the rhizome hairs. The results indicate that the rhizome hairs of C. barometz is a potential source of bioactive compounds with antimicrobial and antioxidative activities.

Classification of EEG Signals Using SVM classifier for Screening Epilepsy Disorder

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ABSTRACT

Infection in human brain causes the brain disorder which is in the form of epilepsy. The infected areas in the brain region generate the irregular pattern signals as focal signals and the other healthy regions in the brain generates the regular pattern signals as non-focal signal. Hence, the detection of focal signals from the non-focal signals is an important for epileptic surgery in epilepsy patients. This paper proposes a simple and efficient methodology for EEG signals classifications using SVM classifier. The performance of the proposed EEG signals classification system is evaluated in terms of sensitivity, specificity and accuracy.

In Vivo Antidiabetic Effects of Aqueous Methanolic Bark and Leaf Extract of *Dolichandrone atrovirens*

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ABSTRACT

The objective of the study was to investigate the in vivo antidiabetic effects in the aqueous methanolic extract of bark and leaf part of *Dolichandrone atrovirens*. The animals were separated into five groups and each group has six number of Wister rates and a total number of 30 Wister rats (24 diabetic surviving rats, 6 normal control rats) were used. Antidiabetic potential of leaf and bark extracts of *Dolichandrone atrovirens* was studied with Streptozocin - Nicotinamide injected type II diabetic model. Estimate the effect of Dolichandrone atrovirens leaf and bark extract on body weight (g.), Serum glucose level (mg/dL), haemoglobin, glycosylated haemoglobin (HbA1C) and total protein level of normal and diabetic rats. The increased body weight, decreased blood glucose, glycosylated haemoglobin and other biochemical parameters level were observed in diabetic rats treated with bark and leaf extract of *Dolichandrone atrovirens* compared to diabetic control rats. The diabetic rats treated with both parts of the plant extracts were produced the significant reduction in blood glucose level. This indicates the bark and leaves part of the plant extract was able to possess the ability to manage glucose level as well as controlling muscle wasting. In conclusion, the present study clearly demonstrates that the *Dolichandrone atrovirens* leaf and bark extract the lowering blood glucose action in diabetic condition. Further, unambiguous mechanisms and sites of these activities and isolation of active constituent of the extract are still to be determined.

Preliminary Assessment of Herbal Remedies in Inhibiting Citrullination of Arginine: An Implication in Mitigating Rheumatoid Arthritis

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ABSTRACT

Porphyromonas gingivalisis is a leading pathogen in chronic periodontitis, a disease process involving progressive destruction of the tissues that support the teeth. The microorganism has been recently reported to produce a unique bacterial enzyme, *P. gingivalis* peptidyl-arginine deiminase (PPAD), which has the ability to convert arginine residues in proteins to citrulline. Protein citrullination alters protein structure and function. Hence, PPAD may be involved in deregulation of the host's signalling network and immune evasion. Further, accumulating evidence suggests a role for autoimmunity against citrullinated proteins in the development of rheumatoid arthritis (RA). However, no effective treatment for RA has been reported till date as the drugs in the market are only capable of merely treating the symptom and not the actual cause of it. Hence, the usage of herbal remedies has become increasingly popular as an alternative treatment for mitigating the disease progression of RA. In this study, we have successfully produced the PPAD enzyme using methods of recombinant technology like PCR, cell transformation, cloning and protein expression and used it to screen for potential citrulline inhibitors. Citrulline colorimetric assay was performed to determine the percentage activity of PPAD enzyme in the presence of herbal extracts (%) and the amount of citrulline produced (µM). A total of 21 different herbs were used and the results indicated *Pinellia ternate* and *Bupleurum chinensis* are herbs that possessed extraordinary inhibitory activities. The activity of PPAD enzyme in the presence of medicinal plants was calculated to be at a percentage of 15.23% and 17.77% respectively. The amount of citrulline produced for *Pinellia ternate* is 10.344 µM and 12.069 µM for *Bupleurum chinensis* which is found to be the most effective herbs in inhibiting the activities of PPAD enzyme and reducing the amount of citrulline produced. Further investigations should be carried out to understand the mechanism of how the herbal extracts were able to inhibit the activity of PPAD and to isolate the bioactive compounds from the herbs which might be useful in mitigating the disease progression of RA.

Induction of Morphological Alterations and Intracellular Damages in Cyanobacterium *Spirulina platensis* by Zinc Oxide Nanoparticles

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ABSTRACT

The rapid expansion of nanotechnology and its application in consumer products in recent days alerts the risk of releasing the nanoparticles (NPs) residues into the water bodies. The presence of NPs in the aquatic sediments enables the adsorption of NPs on the aquatic organisms and thus may bring the surface and intracellular damages to the aquatic biota which can cause death of the organisms. Due to the extensive usage of zinc oxide nanoparticle (ZnO NP) in the cosmetic products and the subsequent release of its residues into the aquatic environment, the present study was aimed to investigate the surface and the intracellular damages of ZnO NPs on the cyanobacterium *Spirulina platensis* which forms the base for food web of aquatic biota. The interaction of ZnO NPs on the algal cells was demonstrated by the FTIR spectrum obtained from ZnO NPs treated cells. Our results demonstrated the possible participation of hydroxyl, carboxy and amino groups of polysaccharides and proteins of algal cell wall in binding of ZnO NPs on the cells. The SEM EDX spectrum of ZnO NPs interacted cells evidenced aggregation of algal cells due to the surface accumulation of ZnO NPs and also confirmed the presence of Zn in algal biomass treated with ZnO NPs. The light microscopic and SEM images of ZnO NPs treated cells displayed encapsulation of algal cells with NP agglomerates, cell membrane damage, fragmentation of trichrome and aggregation of cells with distorted morphology. TEM micrographs of ZnO NPs treated algal cells showed destruction of intracellular organelles, most importantly the photosynthetic system through remarkable reduction and degradation of thylakoid lamellae and photosynthetic pigment phycobilisomes. Overall, the results of the study suggest that the presence of NP residues in the water bodies can harm the aquatic biota through surface binding and accumulation. The findings of the study might be useful to develop a biosensor for detecting the presence of NPs in the aquatic bodies using *S. platensis* as a bioindicator.

Protective Effect of Centella Asiatica Against Unpredictable Mild Chronic Stress Induced Behavioral Changes in Rats

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ABSTRACT

Stress is an unpleasant emotional experience which when becomes chronic results in major behavioural changes such as anxiety and depression. Prevention against these unfavourable conditions is vital for survival. Centella asiatica (CA) a green leafy herb native to Asia is being used traditionally as a brain tonic and rejuvenizer. Thus, an attempt has been made to explore the probable ameliorative effects of CA against behavioural alterations induced by unpredictable chronic mild stress in rat's model. The rats were subjected to 60 days of unpredictable chronic mild stress concurrently with treatment by CA or fluoxetine. Six groups in this study were: Control – no stress exposure, Model – Unpredictable chronic mild stress, Model + CA (200, 400 or 800mg/kg/day) and Model with fluoxetine 1mg/kg/day from day 30. Stressors included 4hrs exposure to restrainer, 15 min of cold water swim, 45° tilted cage overnight, food and water deprivation, overnight wet bedding, change mates and crowded housing. At least three different stressors were given on alternate days to avoid adaptation. At the end of experimental period, behavioural tests including Elevated Plus Maze (EPM), Open Field Test (OFT) and Forced Swim Test (FST) were used to evaluate anxiety and depression like behaviours. CA succeeded in ameliorating the behavioural alterations associated with unpredictable chronic mild stress. It significantly increased number of entries and time spent in open arms in EPM, augmented locomotor activity in OFT and increased activity in FST. All responses are indicative of decrease in depression and anxiety, furthermore no significant difference was observed between the mid and high doses of CA and fluoxetine group. It could be concluded that CA demonstrated a beneficial protective effects against experimentally induced stress in rats which is comparable to fluoxetine.

Effect of Plyometric Training on Long Jump Performance in Athletes

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ABSTRACT

Plyometric training which initiates both eccentric / concentric contraction pattern which reported to evoke the elastic properties of the muscle fibers and connective tissue in a way that allows the muscle to store more elastic energy during the deceleration phase and release it during the acceleration period. The purpose of this study was to find out the effect of plyometric on long jump performance in athletes. **Methodology**: Study design: Experimental study design. Study population: This study consisted of 150 athletes of both gender, mean age of 15.1 year. Sampling technique: Random sampling. Study setting: Athletes were collected from G.T Sheth Vidyalaya, Rajkot. **Criteria For Selection: Inclusion criteria:** 1) Age: 14 – 18 years. 2) Both sexes were included. 3) The ability to perform number of squat that is 1.5 to 2 times of body weight. **Exclusion criteria:** 1. Any history of orthopedic, neurological or cardiovascular disorders were discarded. 2. Involved in any plyometric training program at the time of study. 3. Involved in any resistance training at the time of study. 4. Individual who not co-operative (unwillingness to participate) were excluded. The result of group-A shows no significant difference for pre and post SLJ ($z = 0.561$, $p < 0.1$) and HLJ ($z= 0.2857$, $p < 0.1$). Group-B shows significant difference for pre and post SLJ ($z = 2.8402$, $p < 0.01$) and HLJ ($z= 2.0806$, $p < 0.01$). The inter group result shows highly significant difference for SLJ ($z = 4.526$, $p < 0.0001$) and very highly significant difference for HLJ ($z = 12.04$, $p < 0.0001$) between both groups.

Health Promotion Behaviour (HPB) of Elderly Among Ethnic Groups in Malaysia: A Structural Equation Modeling (SEM)

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ABSTRACT

Population aging is significantly on the rise, and has become one of the important demographic issues in Malaysia. The lack of healthcare knowledge and awareness among the elderly is increasingly becoming a fundamental issue. Leading to an increase of chronic illnesses (such as type 2 diabetes, chronic heart diseases hypertension, stroke, obesity etc.). These illnesses have killed over 1000 elderly people over the years, and the number has significantly increased. Despite several initiatives taken by the government to tackle the issues, a large group of elderly are yet to benefit from the health campaign. Since the aging population is expected to rise in the future, it equally significant for the government to prepare with a proper measure to tackle the phenomenon in the coming years. Therefore, this study intends to investigate the effect of HPB on health of elderly among the ethnic groups. The HPB variables are measured in 6 aspects, namely, healthy eating, exercise, stress management, interpersonal relations, health responsibility and spiritual growth. A set of 400 survey questionnaires is distributed and collected from respondents located in Perak, Malacca and Penang. The statistical analysis result is analysed by using SmartPLS Software 3.0. The data analysis implicated that, Health of elderly is significantly affected by the variables. Hence, Health promotion in health services for elderly needs active support. Findings suggest that elderly Health Promotion Programs improvement can be significant tools to the empowerment of elderly healthcare.

Searching for the Core in Behavioral Finance: A multidisciplinary effort

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ABSTRACT

The study aims to explore the promising field of interdisciplinary research in the area of behavioral finance (BeFi). Relatively young as a sub field of behavioral economics, BeFi is a result of combination of traditional finance, mathematical probability, psychology, and decision science. Despite numerous perspectives offered to explain irrational financial decisions, one proposition is that all decisions eventually boil down to human behavior. Recent trend shows exciting developments with brain science, particularly the field of neuropsychology in understanding the cognitive and emotional aspects of the brain in influencing investor's behavior. The study echoes the paradigm shift by bringing up-to-date the extant literature of BeFi in preparation for further scientific inquiry. Specifically, past studies centered on theoretical foundation on investor's irrational behavior need to be aligned with recent scientific finding on brain research. The study concludes with the apparent limitation of humanities inquiry in the area of behavioral finance, and calls for empirical evidence beyond pen-and-pencil approach. Further contribution to BeFi through a multidisciplinary effort should be welcomed so as to advance the understanding and application of financial decision making.

The Effect of Corporate Board Structure and Capital Structure on Company Financial Performance: An Analysis of Malaysian Public Listed Companies

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ABSTRACT

The purpose of this paper is to look at various facets of corporate governance, notably the effectiveness of the board size and the firm size. In this context, the current study gauges the effects of corporate board structure and capital structure on corporate firm performance issues. The research purpose is to examine the effect of board size and firm size on firm performance in terms of Return on Asset (ROA) and Return on Equity (ROE) in Malaysia's listed companies in consumer products and properties sectors covering a 10-year period from 2007 to 2016. Quantitative data was collected from the Bloomberg database and annual reports of the public listed companies in Bursa Malaysia. Board size and firm size were found to be positively related to the firm performance. The findings may provide some implications for future research regarding the effectiveness of board size and firm size towards firm performance. Nevertheless, the finding may not reflect the true picture in Malaysia.

The Teacher's and Student's Perceptions on the Implementation of the Dual Language Programme

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ABSTRACT

The Upholding the Malay Language and Strengthening the English Language (MBMMBI) policy was introduced in July 2009 after the Malaysian Cabinet abolished the Teaching and Learning of Science and Mathematics in English (PPSMI) policy. Dual Language Programme (DLP) was introduced in 2016 under MBMMBI policy to improve the school students' English proficiency level. This has been a hot topic after the Ministry of Education (MOE) was asked to review the implementation of the Dual Language Programme (DLP) as students will face difficulties in learning Science and Mathematics in English. So, this study aims to identify the insights of teachers and students on DLP and the challenges they faced during the implementation of the Dual Language Programme. The data were obtained through a questionnaire. A total of 147 DLP students comprising Form 1 and 2 students and 8 teachers from four secondary schools in Selangor participated in this study. In addition, a semi-structured interview was carried out among the teachers. This study shows that even though teachers and students faced difficulties and challenges, most of them support the implementation of the DLP. Furthermore, most of the students are keen to learn Science and Mathematics in English although their English proficiency still at the unsatisfying level. This study has discussed various issues related to the Dual Language Programme and could help MOE in identifying and solving the problems arise from the implementation of this new programme.

Whistleblowing Behaviour towards Accounting Students

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ABSTRACT

Whistleblowing play vital roles in exposing wrongdoing and unethical activities in organisation, which can be one of the best ways to discover fraud. To begin, the public should understand and be educated about whistleblowing behaviour. In Malaysia, many people are not aware about whistleblowing activities and fail to exercise their rights due to lacking exposure on what constitutes a whistleblowing behaviour. In addition, Whistleblower Protection Act (WPA) is unable to protect whistleblower accordingly. Therefore, this study aims to identify the factors influencing a whistleblowing behavior among accounting students. In the interest of this study, Ethical Climate Theory (ECT) which consisted of caring climate, law and rule climate, instrumentality climate and independence climate has been applied to support the factors that influence a whistleblowing behavior. At this stage, this paper presents conceptual consideration on the accounting students' whistleblowing behavior. Next, the proposed conceptual framework will be empirically validated using survey data. In contribution, this study as it is lacking empirically, also promotes an awareness on whistleblowing behavior among accounting students, public and assist the government agencies to enhance their whistleblowing policies.

Perception of Islam Among Non-Muslim Undergraduates in Universiti Tunku Abdul Rahman

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ABSTRACT

Islam is the religion of the Muslims revealed through Muhammad as the Prophet of Allah in 7th-century. Despite being known as a religion that promotes moderation and goodness, Islam is always associated with extremist. Islamophobia, the fear, hatred of, or prejudice against, the Islamic religion or Muslims generally, has become prevalent. Its presence in Malaysia would jeopardise the unity, harmony and uniqueness of Malaysia that is well known for her multiracial aspect. This preliminary study aims to explore the perception of non-Muslim undergraduates in a private university in Malaysia towards Islam. It is essential to identify whether is there a manifestation of fear, hatred of or prejudice against Islam or the Muslims. 16 students were chosen based on convenient sampling and divided into 2 main focused groups which are categorized based on the type of primary education; main stream or vernacular. The sample is represented by 4 female Indian students, 4 male Indian students, 4 female Chinese students and 4 male Chinese students. The study deployed focused group interview where the students' knowledge and opinion on Islam and Muslims were probed from series of open-ended questions. Their answers were recorded and transcribed. Thematic analysis was utilized as to detect factors that are pertinent to the possibility of formation of Islamophobia. The findings revealed that there were more interaction with the Muslims in the main stream focused group compared to the vernacular focused group. Hence, the interaction has created more awareness and knowledge regarding Islam which resulted in non-existence of Islamophobia among the students in this focused group. There was little fear, hatred of or prejudice against Muslims in vernacular focused group especially when dealing with conversion of religion. The fact that having little knowledge about the religion has made this focused group to treat religion as a sensitive issue and would not dwell into it. Media exposure was identified as the culprit of Islamophobia. The increasing contact with the Muslims and more knowledge on Islam create positive outlook of Islam and Muslims. This study has suggested that there is a need to have the knowledge on Islam as to create respectful and tolerable individuals which leads to a harmonious world.

Social Identities and Religiosity Differences in Patterns of Self-Disclosure of Malaysians

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ABSTRACT

Self-disclosure plays a crucial role in facilitating friendship development, especially in cross-cultural context. Recognising this, scholars have studied self-disclosure involving various cultural groups. However, very little is known about the self-disclosure patterns of the multi-ethnic and multi-religious Malaysian community. Therefore, this study intent to explore if social identities of Malaysians influenced their self-disclosure patterns. Using a survey method, this study looks into gender, ethnicity, religion and religiosity differences in self-disclosure. Results indicate that gender did not affect self-disclosure patterns, except when the gender of the target receiver was taken into consideration. On the contrary, individuals differed in their disclosure patterns across ethnicity, religion and religiosity. Religiosity was also found to be positively, but weakly correlate with topics of disclosure. Future studies may consider aspects of identities that influences self-disclosure patterns.

Job Demands and Challenges Faced by Teachers of Refugee Children in Klang Valley: Preliminary Findings

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ABSTRACT

In Malaysia, refugees have no legal rights for employment and education because Malaysia is not a signatory to the 1951 Refugee Convention and its 1961 protocol. Refugee children therefore, can only obtain education through informal community-based education centres or other similar means. In Malaysia, there are 23,823 school-going refugee children and only 30% of them are enrolled with the existing 128 community-based learning centres. To meet the demands for education among the refugee communities, the United Nations High Commissioner for Refugees (UNHCR) as of 2017 has supported 700 refugee teachers and registered 400 teachers of refugees through their programs. Due to the legality of the refugee status, teachers of refugees often faced challenges of protection, safety and financial difficulties, where the refugee teachers in specific, are forced to compromise the quality of lesson preparation. Given the increasing challenges encountered by the teachers, this study aims to explore the job demands and the difficult challenges faced by the teachers of refugee children at work. Using qualitative research design, focus group interviews were conducted with 42 teachers of refugees from Klang Valley. Teachers of refugees refers to both Malaysian and refugee teachers who teach refugee children. Respondents were selected from Klang Valley where there is a high concentration of refugee population in Malaysia. Data obtained from the content analysis discovered five major emerging themes: - two for job demands and three most difficult challenges encountered at work. Teaching and marking, preparation for lessons and teaching materials were most demanding in teaching refugee children. The most difficult challenges to handle were language barrier, mixed-ability classes, and behavioural problems. The findings provide valuable insight of the challenges faced by teachers of refugee children and a need for additional educational resources to assist the teachers to provide quality education which is a fundamental right of a child.

Are Islamic Risk Factors Effect on Stock Return? Evidence from Malaysia Based on Dynamic GMM and Quantile Regression Approaches

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ABSTRACT

The paper is the first attempt at analyzing the Islamic-effect in a cross-sectional stock return framework by applying relatively advanced appropriate statistical techniques to pure technical efficiency estimates of individual 141 Islamic and non-Islamic Malaysian firms for the period of 1997 to 2016 using the dynamic GMM and Quantile regression techniques. The results reveal that there is no significant relationship between Malaysian Islamic firms and average stock returns. For robustness, Quantile regression approach has been applied and found that the non-significant Islamic effect, in fact, are changing at different percentiles that affect the cross-sectional expected returns of Malaysian common stocks. Furthermore, results show that some focus variables like market value and book to market and control variable, oil price are not significant at different percentiles, and this result has important implications for the growing Islamic finance industry around the world.

Social Media and its Impact on the Development of Body Image Dissatisfaction Among Urban Male Undergraduate Students

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ABSTRACT

There has been much research that has linked body image dissatisfaction and media. However, the bulk of this research focussed on traditional media. Social media has since emerged as an increasingly influential medium and has had an impact on youth given the frequency with which youth access the different platforms. This study looks at the role social media plays in influencing the development of body image dissatisfaction among youth. For youth today, social media represents a source of information through which standard of beauty are established. The way this information is processed, however, differs for men and women. Body image dissatisfaction and its impact on women which has also been well documented, this study looks at how it has affected men, particularly young men. Studies have shown that men who experience body image dissatisfaction engage in behaviour patterns that are different from women. The study employed in-depth interviews and focus groups, looking at male undergraduate students. The study did confirm that the relationship between social media and men is a complicated one. The results indicated that men do use social media as a source of information but the impact it has on them, including body image dissatisfaction, is influenced by their motives.

Feminism And Ideals In A Romantic Relationship Among Female Malaysian Undergraduates

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ABSTRACT

The advocacy of women's rights on the basis of gender equality has become the major force behind societal changes. Feminism also plays major role in sexual and romantic relationships as women has more power to choose their partner. This has also led to major marital problems such as increase in divorce rates around Malaysia. Thus, this study aimed to find the relationship between feminism and ideals in a romantic relationship including the most and least preferred aspects of ideal partner by a pro-feminist. It also aimed to find out if feminism influences ideal romantic partner and ideals in a romantic relationship. The Attitude towards Women Scale (AWS) and Ideal Partner and Ideal Relationship Scales were used. Female undergraduates in Malaysia from both private and public universities were recruited. Descriptive data showed that partner resources and partner warmth were the least and most important aspects of ideal partner respectively. Pearson correlation analysis has found that there was no significant relationship between feminism, ideal romantic partner and ideals in a romantic relationship. It shows that feminist nowadays are more open-minded and do not restrict their preferences. They do not stick to conventional ideas of having preferred or "must-have" characteristics but are well exposed to accept human differences. These insignificant results showed that other variables such as generational differences, upbringing, educational opportunities could be tested in the extended version of this research. These preliminary findings could be useful in creating new solutions to divorce cases in Malaysia, understanding modern feminism better and improving human relationships in general.

Ethnocentrism and Intercultural Willingness to Communicate: A study of Malaysian Private University

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ABSTRACT

Universities are seen as the place to establish a Malaysian culture and shared values among different races, as they learn to interact with each other on a deeper level than school. However, there are some critics said that interethnic interactions among university students are still limited; students are not willing to engage in intercultural communication beyond the classroom settings due to ethnocentrism. This study investigated the relationship between ethnocentrism and intercultural willingness to communicate among Chinese and Indian undergraduates from a private university in Malaysia. A total of 75 Chinese and 75 Indian respondents (N = 150) were recruited to participate in this study. The 22-item Generalized Ethnocentrism (GENE) scale and Kassing's (1997) 12-item Intercultural Willingness to Communicate (IWTC) scale were adopted and modified to assess respondents' level of ethnocentrism and level of intercultural willingness to communicate respectively. Data were coded, entered, and analysed using the IBM SPSS Statistics 21. Pearson's correlation analysis revealed a moderate significant negative correlation between ethnocentrism and intercultural willingness to communicate. An extra effort from the university is needed to reduce ethnocentrism and increase intercultural willingness to communicate among multiracial students in the campus.

Recent Trends of Research in Science and Humanities

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ABSTRACT

In recent years, progressive attention is given to both inter- and trans-disciplinary research which is not only the "cutting edge" path for the modern research and innovation but also offer great hope for bringing holistic, out- of the-box thinking to an increasingly-specialized workforce of experts. It is necessary to outline some of the main trepidations for the effective promotion of these approaches in social and environmental research. Interdisciplinary research is about creating something by thinking across boundaries. It is related to an interdisciplinary field, which is an organizational unit that crosses traditional boundaries between academic disciplines or schools of thought, as new needs and professions emerge. Research is truly interdisciplinary when it is not just pasting two disciplines together to create one product but rather is an integration and synthesis of ideas and methods. Transdisciplinary research brings collaboration among scientists to operate entirely outside their disciplines which links science and policy to address issues such as environmental degradation, new technologies, public health and social change. Through transdisciplinary approaches, researchers from a wide range of disciplines work with each other and external stakeholders to address real world issues. Transdisciplinary research integrates divergent perspectives, frameworks, epistemologies, methods, and theories, enables the researchers to gather a more comprehensive understanding of social phenomena. Through, bridging different scientific and social knowledge components it can significantly improve the quality, acceptance and sustainability of research solutions. Henceforth, scientists from Science and Humanities must join hands to solve the striking challenges faced by the society today.

Ergonomic Awareness on Mopping Activity among Moppers

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ABSTRACT

Musculoskeletal Disorder (MSDs) had been classified as the global burden of disease and was the leading contributor of global burden than was previously realized. Among various work, cleaning activity is classified as high physically demanding activity. Ergonomic care had been showing promising result on its effectiveness on preventing MSDs while performing mopping activity. However, there are no researches, which examine the ergonomic awareness among moppers. To determine the ergonomic awareness on moping activity among moppers. A self-administered questionnaire was used to assess the ergonomic awareness on mopping activity among 123 moppers were collected. The result shows that moppers are not aware of the importance of using ergonomic friendly mopping tools in preventing MSDs. Most of the participants were not aware of the importance of changing the hand placement simultaneously. However, in the bright side, only 8.9% of the participants had chosen the incorrect mop handle height. Majority of the participants had been placing the surrounding objects and cables higher prior to do mopping activity. Participants aged 26 to 30 years old has higher self-awareness on taking care of their posture while doing mopping activity. When compared between genders, female population had better choice of correct body posture. The results show that there is lack of ergonomic awareness on mopping activity among moppers. More awareness campaign and education talk about the importance of ergonomics to prevent MSDs in mopping activity would help in increasing the awareness among moppers.

Factors & Perceptions Influencing Asian Physiotherapy Students in Choosing Physiotherapy as a Course

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ABSTRACT

The number of physiotherapists has been in a constant raise through the years but is inconsistent in some regions of Asia. Multiple factors and perceptions may influence the Asian students as they are choosing their field of studies. Examples include gender, salary, opportunity, family, and passion. They may also perceive physiotherapy differently as both a course and career. **Objectives:** To identify:

I. The factors influencing Asian physiotherapy students in choosing to study physiotherapy.
II. The perceptions influencing Asian physiotherapy students in choosing to study physiotherapy.
III. The factors and perceptions influencing Asian physiotherapy students in choosing to study physiotherapy according to countries.

Descriptive cross sectional survey study. Self-administered questionnaire was done, involving physiotherapy students from 12 different Asian countries. Snowball sampling method and descriptive analysis was done to complete this study. “Desire to help others” (80.00%), “Opportunity to interact with other people” (70.48%) and “Job availability” (68.57%) are the top three factors influencing the students’ choice. Top three perceptions towards physiotherapy were “A help to society” (75.24%), “Professional status” (53.16%) and “Professional autonomy” (54.29). Not much difference was noted among the countries. Physiotherapy is perceived similarly even in different countries. The factor which influenced the students the most, while they were choosing to study physiotherapy as a course, was their desire to help others and they perceive physiotherapy as a help to society. Salary received is a main concern for the participants.

The Effectiveness of Regular Yoga on Balance, Flexibility and Functional Capacity among the Healthy Older Adults: a systematic review

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ABSTRACT

Yoga is a mind-body practice first found in India, which is now widely used to improve the physical fitness. Yoga is low impact, thus suitable for all age population and highly modifiable for older adult practitioners. The primary aim of this review is to determine the effectiveness of regular yoga on balance, flexibility and functional capacity among the healthy older adults. Relevant articles were identified from the Cochrane Library, PubMed, the Physiotherapy Evidence Database (PEDro) and The Scientific Electronic Library Online (SciELO) up to March 2018. Randomized controlled trial studies that measure the effectiveness of yoga on balance, flexibility and functional capacity of healthy older adults were reviewed. Eligible studies were included if they meet the inclusion criteria. Three randomized controlled trial studies were included in this review. All three articles attained low risk of selection and reporting bias. All the included studies were at high risk of performance bias. There is minimal effect of yoga on balance among the older adult. The results showed better improvement in lower limb flexibility compared to upper limb flexibility. There was slight improvement in functional capacity from the findings of included studies. Yoga may be effective for healthy older adult. There is insufficient evidence to confirm effectiveness of yoga on improving balance, flexibility and functional capacity among the healthy older adult. Further high quality research is required.

D-galactose and aluminium chloride induced rat model with cognitive Impairments

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ABSTRACT

Cognitive impairments and cholinergic dysfunctions have been well reported in old age disorders including Alzheimer's disease (AD). D-galactose (D-gal) has been reported as a senescence agent while aluminium act as a neurotoxic metal, but little is known about their combined effects at different doses. The aim of this study was to establish an animal model with cognitive impairments by comparing the effects of different doses of co-administrated D-gal and aluminium chloride (AlCl3). Male albino wistar rats were administered with D-gal 60 mg/kg.bwt intraperitoneally (I.P) injected and AlCl3 (100, 200, or 300 mg/kg.bwt.) orally administered once daily for 10 consecutive weeks. Performance of the rats were evaluated through behavioural assessments; Morris water maze (MWM) and open field tests (OFT); histopathological examination was performed on the hippocampus; moreover, biochemical measurements of acetylcholinesterase (AChE) and hyperphosphorylated tau protein (p-tau) were examined. Our results showed that rats treated with D-gal 60+AlCl3 200 mg/kg.bwt showed near ideal cognitive impairments. As the rats exhibited an obvious memory and learning deficits in MWM, marked neuronal loss in hippocampus as revealed by Nissl's stain, showed increase in AChE activities and high expression of p-tau within the tissues of the brain. When effectively administered, D-gal 60+AlCl3 200 mg/kg.bwt could serve as an ideal dose for inducing AD like cognitive impairments in albino wistar rats. This is crucial for understanding the pathogenesis of this neurodegenerative disorder and for drug discovery.

Study of Antioxidant Activity and Phytochemical Screening of *Acalypha indica*

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ABSTRACT

Acalypha indica (Euphorbiaceae) is generally known as Indian Nettle and Indian Copperleaf. It is an erect, annual herbaceous plant, which grows in temper region. The purpose of this investigation was to determine the complete phenolic content (TPC) by employing Folin- Ciocalteu method, total flavonoids content (TFC) using aluminium chloride method and 2, 2-diphenyl-2-picrylhydrazyl (DPPH) assay was used to evaluate the antioxidant activity of ethanol, ethyl acetate and hexane of *Acalypha indica* crude extracts. Based on the data collected, ethanol extracts showed the highest TPC as compared to ethyl acetate and hexane extracts. Besides, the highest flavonoids contents exhibited by ethanol extract then followed by ethyl acetate and hexane. Thus, bioactive compounds mostly appear in ethanol extracts as compared to ethyl acetate and hexane extracts. The DPPH antioxidant EC_{50} values revealed that bioactive compounds are mostly present in polar ethanol followed ethyl acetate and hexane crude extracts. In addition, the three solvent extracts were screened for phytochemical tests. Presence of alkaloids, tannins and flavonoids in all the solvent extracts, proposed that *Acalypha indica* can be used as the natural sources of antioxidant and there is favorable interrelationship among the phenolic, flavonoid contents and antioxidant activity in polar crude extracts.

Preliminary Screening of Insomnia Among Academicians in UTAR (Kampar Campus)

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ABSTRACT

Insomnia is defined as difficulty falling asleep and staying asleep associated with daytime impairment or distress which occurs at least three times in a week for at least a month. It may interfere normal physical, mental and emotional functioning yet affected people are not aware of it and conventional sedative-hypnotic drug therapy may not be appropriate for those suffering from only mild-to-moderate sleep disorders. Insomnia has become a common medical disorder in Malaysia although not many studies have been done to estimate the exact prevalence. This study was conducted to measure the prevalence among academician in UTAR Kampar Campus. Four hundred and thirty randomly selected academic staff from UTAR were approached and requested to answer self-administrated questionnaire, Pittsburgh Sleep Quality Index (PSQI). As for preliminary study, the first 200 respondents were analysed. Out of 200 academicians, 59.5% (119) of the sample population was found to be affected with this sleeping disorder (PSQI Score>4). Average hours of actual sleep was recorded at 6.52 (±1.28) while age and PSQI score was not correlated contradicting to popular belief. Many respondents were not aware of their insomnia symptoms till they participated in the screening. Thus, awareness about insomnia and its associated pathological disorders should be raised in future.

Effects of Virgin Palm Kernel Oil (VPKO) and Virgin Coconut Oil (VCO) on Immune and Oxidative Stress Biomarkers in Male Sprague Dawley Rats

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ABSTRACT

Palm kernel oil (PKO) is labelled "virgin" when extracted without chemical adulteration. As such, VPKO is hypothesized to retain more nutritional values since it resembles the physiological properties of the highly demanded VCO, but yet to be explored. Given that palm oil crop is more sustainable, VPKO could emerge as a cheaper and nutritional alternative of lauric oil to the costly VCO. This study compares the effects of 5% VPKO, VCO and refined, bleached, deodorized olive oil (RBDOO) on selected immune and oxidative stress biomarkers in healthy Sprague Dawley (SD) rats (n=16 per treatment) across 8 weeks. Sera were obtained for immunological analyses such as cluster of differentiation 4 (CD 4), cluster of differentiation 8 (CD 8), interleukin 6 (IL 6), tumor necrosis factor alpha (TNF-α) and C reactive protein (CRP); and biochemical analyses such as malondialdehyde (MDA), glutathione peroxidase (GSH-px) and superoxide dismutase (SOD) kits. Results were expressed in mean$\pm$standard error. Interestingly, we observe that CD 4 concentration was the lowest in rats fed with VPKO 3.87$\pm$0.65 ng/mL (p=0.001). The level of CD 8 concentration in rats fed with VPKO 8.19$\pm$0.23 (p=0.001) ng/mL was comparable to VCO fed rats and was lower than RBDOO fed rats. Lower T cell counts indicate suppressed inflammation. IL-6 and CRP concentration in rat fed with VPKO 10.79$\pm$0.24 pg/mL and 122.17$\pm$8.03 ng/mL were slightly higher than that of VCO fed rats but were lower than RBDOO fed rats. Eight weeks' fat feeding had no significant difference in weight gain across treatments. We postulate that VPKO could be a potential supplement as an alternative to VCO for relieving inflammation and enhancing body immune system.

Enzymatic and Mechanical Extraction of Virgin Coconut Oil

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ABSTRACT

Virgin coconut oil (VCO) is gaining popularity due to its therapeutic values. Past studies proposed that pineapple is rich in protease (bromelain) which exhibits demulsification effect. However, no reports on VCO extraction using bromelain from pineapple. Therefore, this study aimed to evaluate the yield recovery and physicochemical properties of VCO extracted using crude protease extract (CPE) from pineapple; meanwhile compared with mechanical extraction techniques (microwave and sonication) without enzyme. VCO was extracted from coconut flesh using CPE from overripe pineapples at different temperatures (40ºC-60ºC) and reaction times (1h-3h). The highest VCO yield was 77.7% at temperature 50ºC for 2h. Meanwhile, CPE showed higher VCO extraction efficacy as compared to microwave (58.6%, at 450W for 10min), sonication (24.1%, for 2h) and control (24.1%, at 50ºC for 2h) ($P<0.05$). Lauric acid (C12:0) was the most abundant medium chain fatty acids detected, followed by myristic acid with no significant difference for different extraction techniques ($P>0.05$). Other physicochemical properties namely iodine value, saponification matter, moisture content and free fatty acid for the VCOs extracted conform to the APCC standards established. No significant difference was found for the physicochemical properties studied for VCO extracted using both mechanical and enzymatic approaches ($P>0.05$). The thermal behavior for all VCOs were comparable with 2 distinct peaks detected in the both melting and crystallisation thermograms at 13.5°C and 24°C, and -1.5°C and 4.5°C, respectively. Triacylglycerol (TAG) profile analysis of the extracted VCOs revealed 7 major TAGs which differ in carbon number (CN) with TAG-CN 32, 34 and 36 being the most predominant.

The Perception of UTAR Foundation Students Towards Agricultural Studies and Its Job Prospect.

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ABSTRACT

This study has two aims, first to determine the interest of foundation students in UTAR on pursuing degree studies in agricultural studies and second to determine the factors that affect their perception on agricultural studies and related career. Krejcie and Morgan (1986) table was used to determine the amount of respondents (269 respondents) needed to fulfil the requirements of the study as which for the data calculation this study employed the method of self-developed questionnaires, which consisted of three sections (Section A: Demographic, Section B: Emotions and thoughts towards agriculture, Section C: Perception towards agriculture) to obtain the necessary data. Universal sampling method were used to gather data from the respondents especially from foundation of science students (885 foundation in science students). The data collected were analysed using the Statistical Package for Social Sciences (SPSS) version 23. Overall, there were 269 respondents with a mean age of 18-19 years whom were of Chinese ethnicity (n= 254, 94.4%) and 68% of them were girls. 16.5% of respondents would not be influenced based on perception and would consider agriculture related sector. The odds ratio percentage showed that the factors that were tested are both nearly to root cause as they recorded 83.5% (perception) that would deter the students from joining this field. Having a family member working in the agricultural field (OR: 6.219, 95 % CI of OR: 1.604 - 24.103), knowing someone in the agricultural field (OR: 8.554, 95 % CI of OR: 2.406 - 30.410) and satisfaction with salary given to graduates in the market (OR: 1.771, 95 % CI of OR: 0.846 - 3.705) were found to be associated with being favourable towards selecting agricultural science as field of study. This clearly defines that respondents do not favour agriculture education or its careers prospect as to other field of studies as based on the findings obtained.

An Analysis of Errors Made in Malaysian Chinese Students' English Compositions

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ABSTRACT

The aptitude to write compositions free of errors is a goal for many learners of English as a second language. However, it is still not achieved among secondary school students, especially in Malaysia. In the past, many studies have been done on students studying in Malaysian national schools, but hardly any research on students studying in international schools. The conceptual framework for this research is based on Corder's Error Analysis and Interlanguage Theory. Besides, the objectives of this research were to investigate the types of errors that occur most frequently in English compositions, to examine the variety of errors found in English compositions written by students at different year groups and to explore the causes for students to make errors in their English compositions. This research used error taxonomy and content analysis to identify, classify, describe, explain and evaluate the errors made by the students. Analysis of the data revealed that the most common errors made were verb tense and punctuation. Year 7 students made most errors in punctuation and subject verb disagreement. Year 9 students made most errors in verb tense and punctuation. Furthermore, the causes for the errors were false concepts hypothesized, overgeneralization, mother tongue interference and incomplete application of rules. In conclusion, this research can serve as a guide to emphasize the challenges faced by Malaysian Chinese students when using English in reading, writing, speaking and listening. Besides, relevant teaching pedagogies can be derived from this research to improve the quality of English language teaching in Malaysia.

The Preliminary Study of Religiosity and Quality of Life among the Elderly in Penang, Malaysia

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ABSTRACT

Elderly is defined as individuals who are aged 60 and above according to the United Nations. The population of Malaysian elderly will be accounted for 10% by 2020 under the influence of global ageing phenomenon. Yet, long life expectancy does not associate with good quality of life. Quality of life is the subjective evaluation of an individual on life position in relation to own expectations, goals, standards, and concerns. Research showed high religiosity associates with good quality of life. However, studies on religion are predominately in western countries. The role of religion may vary in different cultures. This study examined the predictive role of religiosity (organisational religiosity activities, non-organisational religious activities, and intrinsic religiosity) on the quality of life among the elderly. Cross-sectional study and survey were employed into this study. The survey instruments are the World Health Organization Quality of Life- Old module (WHOQOL-OLD) and Duke University Religion Index (DUREL). Linear regression was used to examine the data according to the study objective. This study recruited 50 participants from aged 60 to 84 who are staying in Penang, Malaysia. Penang is populated with diverse religions and cultures. The result showed only non-organisational religious activities (private religion activities) was significantly predicting the quality of life among the elderly. The findings provide an intervention reference for policy makers and healthy ageing related researchers, which is to employ religiosity on improving the quality of life among elderly.

Discovering School Students' Career Choices in STEM via Subjective Norms

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ABSTRACT

The future workforce in Malaysia will require more than one million human capital from the Science, Technology, Engineering and Mathematics (STEM) fields. Thus, Malaysia needs 60% of students enrolling in the Science stream to ensure the country has sufficient manpower for the current and future workforce. However, Malaysia is facing a shortage of human capital in the fields of STEM due to the poor enrolment of potential students. In order to address this disquieting issue, this study explored the subjective norms that influence secondary school students' career choices in STEM. These students are at the phase of making career choices and people who are important to them may have direct influence towards these digital natives' career choices. Six secondary school students from Peninsular Malaysia were interviewed through semi-structured interviews for this preliminary study. Five different types of subjective norms were drawn from the interviews conducted. From the obtained results, it proposed that parents and teachers are the predominant subjective norms which affect secondary school students' STEM career choices. This study may add insights to the stakeholders to design more effective educational plans with cooperation from parents and teachers' to encourage students' career choices in STEM.

The Perception of Malaysian Chinese Elderly on Social Networking Sites

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ABSTRACT

According to studies on the population of developed countries, social networking sites (SNS) such as "Facebook", "WhatsApp" and "Skype" make it more convenient for the elderly to bond with friends and family without having to travel to meet. Nonetheless, studies showed fewer elderly used SNS, and the numbers are even fewer in less developed nations. Therefore, this research aim to explore the perception of elderly towards SNS and to fill the knowledge gap that exist in developing country such as Malaysia. Accordingly, this research uses the technology acceptance model (TAM) and Reason Action Approach (RAA) to examine whether the factors such as perceived ease of use, perceived usefulness, self-efficacy and subjective norm, can affect the intention to use SNS among the Malaysian Chinese elderly. Purposive and snowball sampling was used to collect 288 Malaysian Chinese elderly aged 60 and above to participate in this study, since Malaysian Chinese will face the aging problem sooner than other ethnics will. Back-translation method was used to translate the measurements from English to Chinese version. Multiple regression was used to examine the four factors to find out which factor is the best predictor to intention to use SNS among the Malaysian Chinese elderly. The results of this study will be useful for policy makers and program managers in elderly centre to promote the learning of the use of SNS among Chinese elderly in Malaysia.

Efficacy of *Lygodium microphyllum* in Mitigating Carbon Tetrachloride (CCl_4)-Mediated Oxidative Hepatic Injury in Rats.

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ABSTRACT

Aqueous extract of Lygodium microphyllum (Cav.) R.Br. (Lygodiaceae), a medicinal plant used by local communities in Sabah, was tested for antioxidative and hepatoprotective activity. Several in vitro studies on various extracts of L. microphyllum were carried to determine total phenolic and flavonoids contents, DPPH radical scavenging activity. In vivo animal studies were carried out to evaluate hepatoprotective effects of L. microphyllum at different doses (200, 400 & 600 mg/kg b.w.) against CCl4 (1.0 ml/kg b.w.)-mediated liver injury and histopathological alterations. L. microphyllum possessed strong antioxidant activity in vitro and has the ability to scavenge DPPH free radicals effectively. Aqueous extract of L. microphyllum was able to reduce the levels of ALT, AST and MDA in a dose-dependent manner. GSH levels and antioxidant enzymes activities (GPx, GR, CAT, GST and QR) were significantly elevated dose-dependently in L. microphyllum treated groups. L. microphyllum alone treated group (600 mg/kg b.w.) exhibited similar results as normal control group. Histopathological (H&E) alterations proved the protective effects of L. microphyllum towards normalization of hepatocytes. The ethnobotanical claim is in harmony with the findings of this experiment. Antioxidative properties of L. microphyllum could be attributed for the hepatoprotective effect of this plant.

A Quantitative Study On The Physiological Changes And Effects Of Different Deep Breathing Durations On Cognitive Control

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ABSTRACT

Deep breathing brings positive effects on the physiological state of the body, however, the current literature does not have a consensus on how long it is necessary. Furthermore, there is no study linking deep breathing to the cognitive control. In this study, questionnaires, cerebral oxygen delivery (CDO2), heart rate variability (HRV), electroencephalogram (EEG) and event related potential (ERP) in a Go/NoGo paradigm to quantify the cognitive control were investigated for different deep breathing durations. 50 participants were recruited and randomised into one of the four groups of control (Con, n = 12), Deep breathing for 5 minutes (DB5, n = 12), 7 minutes (DB7, n = 13) and 9 minutes (DB9, n = 13). The period of interest included the baseline (R1), first Go/NoGo task (T1), during deep breathing (INT), post deep breathing (R2), second Go/NoGo task (T2), follow-up baseline (R3) and third Go/NoGo task (T3) during the follow-up session. During R3, a positive trend between the CDO2 and the deep breathing duration was evident. For the HRV indices during INT, all three DB groups had a significantly larger SDNN (all three $p < 0.05$) and nLF (all three $p < 0.001$) and a significantly smaller nHF (all three $p < 0.001$) compared to Con. This indicated that the DB groups had a greater activation of the parasympathetic nervous system. For the EEG, DB5 and DB9 had a significantly larger frontal relative theta power as compared to that of Con (both $p < 0.05$) whereas DB7 and DB9 groups achieved a centrally dominant topography. The overall beta power was lower in all three DB groups (all three $p < 0.05$). These showed that the DB groups' participants achieved a 'focused yet not anxious' state of mind. For the ERP, results showed that during T3, the NoGo N2 amplitude of the DB5 group was significantly larger than that of Con ($p < 0.05$) and an inverse relationship between the NoGo N2 amplitude and the deep breathing duration was observed. This indicated that the DB5 group had an enhanced conflict monitoring ability. Regarding the optimum deep breathing duration, the current study revealed that the optimum duration is either 5 or 9 minutes.

The psychosocial impact of cultural preference for sons

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ABSTRACT

Parental preference for sons means that parents prefer sons rather than daughters for economic, religious or social reasons. Parents who have this preference have found to use sex-selection techniques to ensure the unborn baby is a boy. The unbalanced sex-ratio of birth (SRB) in some countries with cultural preference for sons, such as India, China, Korea, Taiwan and Vietnam, are found to be relevant to the abuse of sex-selection techniques. Though the SRB in Malaysia is found to be neutral, but Malaysian Chinese were found to be higher in SRB than Malays and Indians. This report shares the findings from a serious of study conducted by the author regarding the psychosocial impact of cultural preference for sons among Malaysian Chinese adolescents. The negative consequences of high SRB have been discussed in different areas, but it is surprisingly to find that the psychosocial impacts of cultural preference for sons are seldom been explored. To tackle the psychosocial impacts of cultural preference for sons, a joint effort from science and social science studies is clearly needed.