Depression, anxiety and stress status and dental caries experience among adult patients attending outpatient dental clinic in Hospital Universiti Sains Malaysia

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Abstract

Poor oral health is common amongst people with severe mental illness and remains as a largely forgotten problem in the community. The study aimed to evaluate mental health status and dental caries experience among adult patients attending outpatient dental clinic in Hospital Universiti Sains Malaysia. This was a cross-sectional study involving 106 adult patients who attended the outpatient dental clinic. Sociodemographic profiles were obtained and mental health status was evaluated using the Depression, Anxiety and Stress Scales (DASS-21) questionnaire. Clinical oral examination was conducted to determine the caries experience using the decayed, missing and filled teeth (DMFT) index. Results show that majority of the patients were Malay (92.5%), female (60.4%) and young adults (73.0%). The prevalence of moderate to extremely severe symptoms of depression, anxiety and stress was found in 5.7% (95% CI:1.2-10.1), 19.8% (95% CI: 12.2-27.5) and 6.6% (95% CI: 1.8-11.4) of the patients respectively. The median (IQR) of the caries experience was 7.0 (IQR = 7). There was significantly higher caries experience in normal/mild (9.0) compared to moderate/severe/extremely severe (5.0) group of anxiety symptoms ($p = 0.029$). However, there were no difference of caries experience between the group of depression symptoms ($p = 0.099$) and stress symptoms ($p = 0.452$). In conclusion, the prevalence of symptoms of depression, anxiety and stress among the patients were low with high dental caries experience. Even though screening of mental health is not warranted in primary dental setting but it would be beneficial to check on oral health status in mental health clinic setting.
The perception of music in delivering oral health messages among students of School of Health Sciences, Health Campus, Universiti Sains Malaysia (USM), Kubang Kerian

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Abstract

Music has been used to disseminate oral health education messages as part of oral health promotion activities, but the effectiveness of this medium and its benefits to the public has been proven yet. The purpose of this study was to determine the perception score of music and the factors associated with the perception of music in delivering oral health messages among first and second year students of the School of Health Sciences, Universiti Sains Malaysia. A cross sectional study was conducted among 47 randomly selected undergraduate students (mean age 21; SD = 0.64). The students were asked to rate each item in the questionnaire based on a 5-point scale. The data was analyzed using IBM SPSS version 22.0. The significant level was set at $p < 0.05$. The mean (SD) perception score of students overall was 82.8 (9.65). However, there were no clear factors ascertained with the perception score of music in delivering oral health messages amongst the students except gender. There was a significant difference between the males and females who agreed that banners, posters and pamphlets provide a lot of knowledge on oral health ($p = 0.018$). Most of the students preferred soft music and believed that music contributes to a positive influence on their emotions. They also agreed that banners, posters and pamphlets do provide a lot of knowledge on oral health, and music could replace these traditional methods. In conclusion, there was no significant difference of the perception score of music among the students.
Different surgeries are the predictor of treatment outcome of unilateral cleft lip and palate children: A multi-population study

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\textbf{Abstract}

Unilateral cleft lip and palate (UCLP) children frequently exhibit underdeveloped maxilla which later on leads to Class III malocclusion with other dental anomalies. The growth-restraining effect of scar tissue from the cheiloplasty (lip surgery) and palatoplasty (palate surgery) are believed to be the most exacerbated factors of the maxillary hypoplasia. This is necessary to know that which factor is affecting the treatment outcome (underdeveloped maxilla) thus clinicians can take precaution or modify their treatment plan at the early age of the patient. For the first time, herein, we evaluate and compare the effect of different techniques of cheiloplasty and palatoplasty in treatment outcome based on dental arch relationship (DAR) of three different populations at a time using GOSLON yardstick. In this retrospective study, 292 UCLP children (107, 84 and 101 for Malaysian, Bangladeshi and Pakistani population respectively) were taken before orthodontic treatment and alveolar bone grafting. The DAR was assessed by GOSLON Yardstick. Independent t-test was performed to compare the GOSLON score for each factors. A multiple comparison (ANOVA) was also conducted between the GOSLON score of different populations. Significant difference revealed between two techniques of cheiloplasty in both Malaysian and Pakistani population ($p = 0.038$ and $p = 0.000$ respectively). Techniques of palatoplasty also showed significant difference in Pakistani population ($p = 0.000$). However, no significant differences was observed between the GOSLON score and the countries. In conclusion, the treatment outcome based on DAR significantly varies in individual population [Malay ethnic group (cheiloplasty); Pakistan (cheiloplasty, palatoplasty)].
Herbal medicine: Knowledge and practice among staff at School of Dental Sciences, Universiti Sains Malaysia

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Abstract

Herbs have been used for oral health purposes for thousands of years ago. This study aimed to investigate the knowledge and practice (KP) of medicinal herbs related to oral health among staff at School of Dental Sciences, Universiti Sains Malaysia (USM). A cross sectional study was conducted on lecturers, Dental Surgical Assistants (DSA), nurses, administrational workers and dental technicians at School of Dental Sciences, USM. The result shows that the level of knowledge among dental staff about herbal medicines related to oral health was 25%, indicating that they had poor level of knowledge about oral health-related herbal medicines. Almost three quarters of the staff (73%) were in the low level of practice (0-25%) and the average was just 13.85%. The result shows that there was no any association between knowledge and practice with age and gender. On the other hand, the result shows that there was a significant association between practice scores and occupations of the staff ($p = 0.045$). Correlation test shows a moderate association between knowledge scores with practice scores. Knowledge and practice levels toward herbal medicines related to oral health among dental staff were poor. There was no significant relation between knowledge and practice with age and gender and other sociodemographic variables, except a significant association between practice and occupation group were found. There was a positive moderate association between level of knowledge and level of practice.
Assessment of cytokine gene expression in response to quadrivalent HPV vaccine of 2 doses schedule in adolescent school girls (13 years old): A pilot study

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Abstract

Human papillomavirus (HPV) infection is widely known as the primary infectious agent involved in cervical cancer development. Currently, HPV vaccines are available to prevent HPV-related diseases including cervical cancer. Although neutralizing antibodies are considered as the main effectors involved in the mechanism of protection, the immune mechanism for HPV vaccine remains unclear. Thus, this study was carried out to determine the cytokine responses in individuals vaccinated with the quadrivalent HPV (4vHPV) vaccine. Girls aged 13 years old (n=20) were given two doses of 4vHPV 6 months apart and bloods were collected pre at 0 month and 28-days post the last dose. Peripheral blood mononuclear cells (PBMCs) were isolated and RNA extraction was performed. The relative concentration of cytokine messenger RNA (mRNA) transcripts (IFN-γ, TNF-α, IL-6, IL-10, IL-12 and IL-4) was determined by real-time polymerase chain reaction. The fold changes of all cytokines post 4vHPV vaccination were found to be increased (IFN-γ=2.80; TNF-α=1.57; IL-6=2.82; IL-10=1.58; IL-12=1.63; IL-4=3.53). The strongest correlation was significantly observed between IFN-γ and IL-6 (R= 0.87), IFN-γ and IL-10 (R= 0.82), IFN-γ and IL-4 (R=0.83), and IL-10 and IL-4 (R=0.83). The increment and significantly strong correlation observed in anti-inflammatory cytokines (IL-6, IL-4 and IL-10) supports the indication of activation in humoral immunity which occurs after vaccination. Thus, assessing the cytokine expression at the cellular level may provide better insight on the mechanism of 4vHPV.
Bone health status, aerobic and anaerobic capacities, and muscular performance of Kelantan state weightlifting, cycling and squash male athletes

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Abstract

This study was carried out to determine the differences in bone health status and physiological profiles of weightlifting, cycling and squash athletes. Forty four participants (mean age: 17.1 ± 1.6 years old) were divided into sedentary control, weightlifting, cycling and squash groups. One-Way ANOVA was used to determine differences among groups. Participants’ tibial and radial bone speed of sound (SOS) and physiological profiles were measured. Weightlifting, cycling and squash groups exhibited significantly greater tibial and radial bone SOS ($p < 0.001$) compared to the sedentary control group. Cycling group showed significantly higher estimated VO$_{2\text{max}}$ ($p < 0.001$) compared to weightlifting and squash groups. Weightlifting group exhibited significantly greater peak power ($p < 0.05$) than cycling and squash groups. Cycling group showed significantly higher anaerobic capacity and power ($p < 0.001$), and significantly lower fatigue index ($p < 0.05$) than weightlifting and squash groups. Both weightlifting and cycling groups showed significantly lower time to reach peak power ($p < 0.01$) than squash group. Additionally, weightlifting group showed significantly greater dominant and non-dominant hand grip strength ($p < 0.001$), as well as back and leg strength ($p < 0.001$) compared to cycling and squash groups. The present study found that engagement in weightlifting, cycling and squash training could enhance bone health status compared to sedentary lifestyle. Cyclists had higher aerobic and anaerobic capacities, and lower fatigue index than weightlifting and squash athletes. Meanwhile weightlifting had greater peak power, hand grip, and back and leg strength than cycling and squash athletes. These results imply physiological profiles of the athletes that are dependent on sport events they were involved in.
The use of the internet to access oral health-related information among parents of 4- to 6-year-old children in Kota Bharu, Kelantan

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Abstract

Online oral health information was reported to be associated with oral health knowledge, which parents will greatly influence young children as they are not able yet to control their own oral health. This study aimed to study the level of internet use to access general health and oral health-related information among parents. A cross-sectional study was conducted using a self-administered questionnaire involving 202 parents or guardians of children attending KEMAS and registered private pre-schools in Kota Bharu, Kelantan. Sample selection was done using proportionate quota sampling. Data was analysed using IBM SPSS Statistics software. Among those who had accessed to internet, there are 89.8% and 72.2% searched for general health and oral health-related information online respectively. High proportion of parents perceived the usefulness and ease of use of online oral health information. A high proportion of the parents would be interested to use internet as a future source of oral health-related information and interested to be recommended to an appropriate oral/dental websites by their dentist or dental therapist. There are significant differences between the studied parents highest education level ($p = 0.002$) and monthly household income ($p = 0.014$) with the internet use for general health information. Significant differences were only detected between the studied parents household income ($p = 0.021$) on the internet use for oral health-related information. A high proportion of parents using internet for health and oral health-related information may eventually provide opportunities for using online health education programme and also demonstrate the need for emphasis on the credibility of online information.
Road traffic accidents, near-misses and their associated factors among commercial tricycle drivers in a Nigerian city

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Abstract

Tricycles form an important part of the intra-city transport system, following the ban placed on motorcycles in Maiduguri, Nigeria. However, no studies have been conducted to assess the occurrence of accidents among them. The objective of this study was to determine the prevalence of road accidents, near-misses, and their associated factors among commercial tricycle drivers in Maiduguri. A cross-sectional study was conducted among registered commercial tricycle drivers in Maiduguri who had been in the business for at least a year. Data was collected through face-to-face interviews, using a structured questionnaire, and was subjected to bivariate and multivariate analysis using SPSS. The prevalence of road accidents and near misses were 46% and 50.3% respectively. Only six (3.9%) of respondents who had experienced a near-miss mentioned that they occurred while they were fully awake; during clear weather; and on a smooth, broad, and non-congested road. All the others had experienced the near miss under an unfavourable weather, road, and/or while feeling sleepy. In the bivariate analysis, only psycho-active substance use ($\chi^2 = 3.941; df = 1; p = 0.047$) and having experienced more than one near miss ($\chi^2 = 31.807; df = 1; p < 0.001$) were significantly associated with having an accidents. However, in the multivariate analysis, having experienced more than one near miss was the only factor which significantly predicted having an accident (OR = 2.89 95% CI: 1.64-5.09; $p < 0.001$). There is a need to conduct further intervention studies to determine the effectiveness of intervention measures in reducing accident rates among these tricycle drivers.
The experience of caregivers in accessing oral health care facilities for cerebral palsy children: A qualitative study

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Abstract

Maintaining optimal oral health (OH) is a major issue in cerebral palsy children (CP) because they are unable to perform effective OH care and have barriers in access to OH services. The objective of the study was to explore the experience of the caregivers on accessibility towards OH facilities for the CP children in Kota Bharu, Kelantan. A purposive sampling was utilized, ten CP’s caregivers were undergone in-depth interview, audio-recorded in this phenomenology study. Transcribe verbatim were reviewed, coding was developed, themes were emerged from across the categories and NVivo was used to facilitate data management. Ten CP’s caregivers aged 32-60 years were participated and CP children that aged between 9-18 years were predominantly in Gross Motor Function Classification System IV. Most of them were from low socio-economic status and low level of education. From ten verbatim transcripts, five themes were emerged, which were dental experience, family support, mobility, ability to pay and social value. OH literacy, appropriate dental services, dental outreach programme and future dental home services were suggested in promoting the ability in accessing OH facility. Highly dependent CP children needed physical supports, however unsupportive interactions amongst family members jeopardized their dental needs. The presence of social support would assist parenting duty, however poor social support, restriction on mobility and costly basic necessities could detrimental the OH need of the CP children. Unique challenges experienced by the CP’s caregivers in accessing OH facilities. Therefore, this study might provide the essence and insight to the relevant agency to ease and close the gap of the caregivers in accessing oral health care facilities for their CP children.
Preliminary study on prevalence of latent tuberculosis infection (LTBI) and its associated factors among diabetic patients in selected health clinics in Terengganu

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Abstract

Mycobacterium tuberculosis infection causes significant morbidity and mortality worldwide. Diabetic patient is recognized as an immunocompromised state, as a major risk to have latent tuberculosis infection (LTBI). About 28.5% diabetic patients in Malaysia had a positive LTBI. An effective strategy for reducing the transmission, morbidity, and mortality of active disease among diabetic patients is the identification of LTBI. This study aimed to determine the prevalence of LTBI and its associated risk factors among diabetic patients. This cross-sectional study was conducted at 11 health clinics in Terengganu. Participants (n = 449) were administered with Tuberculin Skin Test (TST) and interview session was done to obtain the socio demographic and clinical data. Simple and multivariate logistic regression were tested for the associations between independent variable and dependent outcomes (associated factors of LTBI and LTBI status). Out of 449 patients mean age were 59.16, which 63.7% were females and 36.3% were males. The prevalence of LTBI among diabetic patients was 5.3%. This study revealed that the risk factors for LTBI were having coronary heart disease ($p = 0.034$, OR=3.99), higher glycated haemoglobin (HBA1c) ($p = 0.024$, OR=14.63), occupation ($p = 0.029$, OR=6.96), asthma ($p = 0.006$, OR=8.69) and history of TB contact ($p = 0.003$, OR=4.51). Active screening, infection control measure and glucose controls are recommended in reducing the risk of LTBI and reactivation of LTBI.
Effectiveness of Inabah programme for substance use disorder in Kedah, Terengganu and Kelantan

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Abstract

Despite the development of behavioural and pharmacological interventions, dependence upon illicit drugs continues to be a major public health concern. Inabah programme is an Islamic psycho-spiritual approach used to rehabilitate drug addicts. Our study attempts to investigate the clinical status and psychosocial outcomes of Inabah programme in Kedah, Terengganu and Kelantan. This prospective pre- and post - study utilized convenience sampling. Withdrawal and craving levels were assessed using the Withdrawal Symptoms List and Brief Substance Craving Scale (BSCS) respectively. Higher scores denoted higher withdrawal frequency and craving level. Psychosocial and health profiles were measured using the Opiate Treatment Index (OTI). Higher scores signified greater degree of dysfunction. Descriptive and non-parametric tests were applied. Eligible 77 Muslim male participants were recruited during pre-intervention (age = 29.1 ± 7.1; single = 72.7%; self - employed = 49.4%; duration of intervention > 2 months = 32.0%). Only 60 participants completed the post-intervention phase (drop - out = 17). Findings revealed that there were significant improvements in Withdrawal Symptoms \((p < 0.05)\), Craving Level \((p < 0.001)\), Drug Use and Health Status \((p < 0.05)\). The largest effect size was shown by Drug Use \((d = 0.68)\) while moderate effect size was demonstrated by Craving Level \((d = 0.50)\). Only minimal effect size were exhibited for both Withdrawal Symptoms \((d = 0.42)\) and Health Status \((d = 0.29)\). This pioneering study on Inabah programme has demonstrated significant improvements in drug use pattern, clinical symptoms and health status after two months of intervention. Essentially, these positive outcomes could indicate the promising potential of Inabah programme as one of the psycho-spiritual approaches in promoting the recovery process of drug addiction.
Knowledge, attitude, self-efficacy and practice of standard precaution measures among nursing and midwifery students in Damaturu, north-eastern Nigeria

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Abstract

Standard precautions comprise of evidenced-based measures aimed at reducing the incidence of health care associated infections. Compliance to these measures by nurses in Nigeria has generally been poor, despite their continuous exposure to a myriad of pathogens at their workplaces. It is expected that the habit of observing these measures should have been developed during the course of their training in school. The aim of this study was to determine the knowledge, attitude, self-efficacy and practice of standard precaution measures among nursing and midwifery students in Damaturu, Nigeria. This study utilized a cross-sectional study design, in which self-administered questionnaires, were used to collect information from the respondents. A total of 125 respondents participated in the study. Total knowledge, attitude, self-efficacy and practice scores were computed, and the median was used to classify respondents into either a higher or lower category of those variables. Descriptive statistics, Chi-squared tests and Spearman’s correlation tests were performed to determine the association between the variables in this study. Spearman’s correlation revealed significant positive correlations between knowledge and practice ($r = 0.455$, $p < 0.001$) and between self-efficacy and practice ($r = 0.391$, $p < 0.001$). Higher age was significantly associated with higher knowledge and higher practice; while higher school year was associated with higher knowledge and higher self-efficacy, but not higher practice, which could signify a possible burn out with conforming to these measures, with the passing of time. There is the need to replicate similar study among the professional nurses to determine the need or not for retraining.
Dengue prevention practices among community in Kampung Tok Kenali, Kota Bharu, Kelantan

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Abstract

Dengue fever is one of the most important mosquito-borne diseases, which can cause a major problem to human health. In 2013, Malaysia reported a two-fold increase of dengue cases. Kelantan recorded the highest dengue cases. Poor practices in dengue prevention and household environmental characteristics such as rooftop, flower pot that have water reservoirs are among the factors contribute to dengue fever occurrence. Kampung Tok Kenali, Kota Bharu, Kelantan was chosen as a study location as it was categorized as a hot spot area of dengue fever in November 2016. A cross-sectional study design was used to identify the dengue prevention practices among the community in Kampung Tok Kenali. A total of 132 respondents in Kampung Tok Kenali were recruited by using a purposive sampling. The questionnaires consisting parts of socio-demographic information, house environmental characteristics, attitudes and practices of dengue were distributed to respondents. The results show majority of the respondents (62.9%) have “moderate extent” of dengue prevention practices. Results also indicate no significant association between dengue prevention practices and socio-demographic factors such as age, gender, educational level and occupational status. However, there is a fair correlation between dengue prevention practices and attitudes of the respondents. Therefore, the knowledge regarding dengue practices should be emphasized among the community in Kampung Tok Kenali in order to raise their dengue awareness and practice a better dengue prevention practices in their resident.