96 Social-economic Factors and Childhood Traumatic Dental Injuries in Chiang Mai, C. CHUENSUWANOK (Dental Public Health Subdivision, Chiang Mai Municipal Hospital, Thailand); P. MALIKAW* and A. DUADEEPAN (Community Department of Dentistry, Faculty of Dentistry, Chiang Mai University, Thailand)

A cross-sectional study was carried out in the Class 1 level 6 Chiang Mai Municipal School Children to investigate the associations between socio-economic factors and traumatic dental injuries to anterior permanent teeth. 372 students including 209 males (56.2%) and 163 females (43.8%), aged 11 to 18 years, were examined for the evidence of traumatic dental injuries. 366 parents of the students (84.9% of the examined sample) returned the questionnaire of their socio-economic information. The results showed that the prevalence of traumatic dental injuries per cent significantly suffered from traumatic dental injuries more than girls did (OR: 1.26; 95% CI: 1.31 to 3.12, p < 0.004) after controlling for age and all socio-economic factors in the study. The most important indicator of socio-economic factors in this study was "occupational status of mother". After controlling for sex, age and other socio-economic factors in the study, the chi-squared unemployed mothers statistically and significantly experienced traumatic dental injuries 3.78 times (95% CI: 1.32 to 11.61) as much as those with employed mothers (p = 0.02). However, a statistically significant protective effect predicted in the children with their mothers being housewives compared to those whose mothers were employed (OR: 0.14; 95% CI: 0.06 to 0.37). It is concluded that the socio-economic factors played an important role in the occurrence of childhood traumatic dental injuries. This study was supported by the Thai Government.

97 Synergistic Effect of TGF-β and 1,25(OH)2D in Human Pulpal Fibroblasts, P. PAVASAN*, T. YONGCHAITHAKUL, K. PATTAMAPORN and M. ARKSORSITKIT (Department of Anatomy, Faculty of Dentistry, Chulalongkorn University, Bangkok, Thailand)

1,25(OH)2D, and TGF-β1 can influence function and differentiation of dental pulpal fibroblasts. In this study, we examined the effect of 1,25(OH)2D, and TGF-β1 on the synthesis of SPARC and alkaline phosphatase (ALP) activity in human dental pulp fibroblasts. Two strains of SPARC: the 43 and 38-kDa, were detected in this cell type. TGF-β1 increased the synthesis of SPARC about 2.5-fold after 3-day treatment but had no effect on the ALP activity in comparison with the control. On the contrary, 1,25(OH)2D increased ALP activity two-fold but had no effect on SPARC. The combination of TGFB1 and 1,25(OH)2D induced increased of SPARC synthesis and ALP activity by five and nine fold, respectively. This finding suggested the synergistic effect between TGF-β1 and 1,25(OH)2D, and TGF-β1 on the synthesis of SPARC and ALP activity. This interaction could influence the function and differentiation of dental pulpal fibroblasts (Supported by Ratchadapisek Somphot Research year 2001, Chulalongkorn University).

98 The Effect of Time, from the Recording of Definitive Impressions, on the Acceptability of Fit of Cast Cobalt-Chromium Frameworks, Sammak PRAMONO* (Department of Prosthodontics, Faculty of Dentistry, Triasitik University, Jakarta, Indoneisa)

The aim of this study was to determine if there is an optimal time for the placement of cobalt-chromium prostheses in a patient's month after the recording of definitive impressions. The null hypothesis was that there would be no difference in fit on the casts irrespective of the time from recording the definitive impressions. Thirty five cobalt-chromium frameworks were made and each framework was assessed for fit on the definitive master cast plus other casts poured from impression recorded two, four and eight weeks after the definitive impression. Assessment of fit was via visual and indirect measurement. There was a significant statistical difference between the mean value of time (t) for fit recorded immediately after recording the definitive impressions. The results indicated that the time of casting cobalt-chromium frameworks was influenced by time. It is recommended that further research should be undertaken in an attempt to produce guidelines to general dental practitioners.

99 Use of Prior Information for Reducing Dental Anxiety, S.K.S. NG*, W.J.L. CHAI (The University of Hong Kong, Hong Kong SAR, China)

A major issue in both dentistry and health psychology is the strategies for stress management and anxiety coping, e.g., preparing a patient for a critical yet necessary dental procedure. Common approaches involve providing the patient with information about the forthcoming event, instruction of relaxation and coping techniques as well as cognitive, behavioural and modelling approaches. This study examined the role of pre-operative information in reducing anxiety and how the effectiveness of these techniques varies for patients with high and low trait anxiety. Participants were randomly assigned to four groups receiving, prior to the operation, a) basic information only (NI), b) basic information with details of the operative procedures (IP), c) basic information with details of both the operative procedures and recovery (PR). Results indicated that preoperative information with details about the operative procedures and recovery led to significant reduction in self-reported anxiety in all patients. In contrast, information on operative procedural details only led to anxiety reduction in low but not high trait anxiety participants. It can be concluded that providing basic and detailed information about the procedure and recovery can potentially help reduce anxiety towards threatening situations or novel situations, should be decided in accordance with the trait anxiety of the subjects. For low trait subjects, prior information should be provided in any of the formats P, R, or PR, but for high trait subjects, only the type of P is adequate and should be provided in prior to surgery to help reduce anxiety. E-mail: jinsong@hkumc.edu.hk

100 Student dental care service in the universities in Hong Kong: M.C. WONG* and C.H. CHU (Faculty of Dentistry, The University of Hong Kong, Hong Kong, China)

The objective of this study was to describe the provision of dental care service by the dental clinics in the seven universities in Hong Kong. A questionnaire survey of the dental service in each of the seven universities in Hong Kong on their missions, policy, background, development, organization, staffing, management and future plan of the university student dental service. Results: It was found that there are two routes of operation in the dental clinics in the university, namely in a private practice or a public service provided by university with grant. There are also different staffing pattern and organization in different universities. Conclusion: These results may help the person in the university to establish the dental service in their own university. The result of the survey and the results of the comparison among the different university are described in the paper.

101 Oral health of a group of type 2 diabetic patients in Hong Kong, W.S. RONG, P.C.M. LIO (Faculty of Dentistry, The University of Hong Kong, Hong Kong, China)

Objective: To describe the oral health status and oral health related quality of life of a group of poorly controlled type 2 diabetic patients in Hong Kong and to evaluate the impact of oral conditions on quality of life in these patients. Methods: A cross-sectional study was conducted in Hong Kong. About 41 type 2 diabetic patients, aged 41-70 years old, with documented records of glycated hemoglobin (HbA1c) levels over 8% for at least 4 years was involved in the oral health examination and took a panoramic radiograph. In the examination, a questionnaire including General Oral Conditions Questionnaire (GOSEQ) was used and the survey was conducted at the hospital according to the WHO recommended procedures and criteria. Results: 128 patients (53 males, 67 females) participated in the study. The mean HbA1c level was 9.0 ± 1.1%, 71.7% of the patients were taking oral hypoglycemic medication and 24.2% of them used insulin injection. The mean GOSEQ score of the subjects was 12.1 ± 4.84 (M.D = 1.3, M.I. 3.86, F.I. 2.73), which means the number of tooth with a perceptual lesion was 1.1 ± 1.4, 65.6% of the patients required extraction and/or root canal therapy. None of the patients had a completely healthy periodontium, 78.3% and 35.8% of them had shallow and deep periodontal pockets respectively. The mean GOSEQ score of the patients was 9.0 ± 0.58. Using a multiple linear regression analysis, the number of tooth with a perceptual lesion and the condition of control blood glucose was found to be associated with GOSEQ score. Conclusion: Oral health status of this group of diabetic patients was unsatisfactory, and this was associated with their oral health related quality of life.

102 The prevalence of cervical abrasion in non-institutionalized Thai elderly, S. LEELATHOTHIRAT*, H. HONGSAUNG* P., PRASERTSOM†, and U. UNCHUSIK† (Ministry of Public Health, Chulalongkorn Univ., Thailand).

The purpose of this study was to investigate the prevalence of cervical abrasion among non-institutionalized dental elderly, who is ethnic Thai older adults aged 51 years and over living at home in an urban community in Bangkok. Data were collected from a clinical oral examination and an interview. The tooth wear index (TWI) was used to assess the level of cervical abrasion. In these dental older adults, 81.8% had some cervical abrasion of TWI 40, 37.7% having evidence of cervical abrasion of TWI 20-40, 3.6% of TWI 10-20, and greater than 3 mm deep pulp exposure (TWI scores 5). The prevalence rates were highest among maxillary premolars, followed by mandibular premolars. Based on logistic regression analyses, factors found to be significantly associated with extensive cervical abrasion were the number of sites with deep cervical abrasion, frequency of toothbrushing, and age. The percentage of sites with bleeding on probing (OR: 0.99). In conclusion, these correlations were confirm in a hypothesis of forceful toothbrushing as the major etiologic factors. This study was supported by IRG grant No. RO07905 25/41.

103 Phospholipase A2 enzyme and phospholipase H1 gene (cPLA2) expression in C. albicans, Y. ILAMARANAYAKE, L.P., ILAMARANAYAKE, B.P. CHEUNG*, R.S. DASSANAYAKE, J.Y.W. YAU and K.W.N. YEUNG (Oral Sciences, Faculty of Dentistry, University of Hong Kong, Hong Kong, SAR, China)

Candidal phospholipase activity which is linked to the pathogenesis of oral candidiasis has not been investigated in yeasts from HIV-infected individuals. The main aim of this study therefore was to investigate quantitatively the phospho-lysing activity of phospholipase in 49 oral C. albicans obtained from 69 HIV-infected individuals and to correlate the enzyme activity with the clinical diagnosis. The phospholipase activity was measured by using a specific assay protocol. The phospholipase activity was measured after 15 minutes of incubation. The results showed that the phospholipase activity in C. albicans was significantly higher in HIV-infected individuals than in non-infected individuals. The results strongly suggest that phospholipase secretion in vivo is due to the expression of C. albicans phospholipase H1 gene (cPLA2). (Supported by a grant from the Research Grants Council and the CRCG of the University of Hong Kong, Hong Kong SAR.)

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