

**3. Amin FA, Fedorowicz Z, Montgomery AJ. A study of knowledge and attitudes towards the use of evidence-based medicine among Primary Health Care Physicians in Bahrain. Saudi Medical Journal. 2006 //;27(9):1394-6.**

Objective: A study of perceptions and attitudes towards the use of evidence-based medicine (EBM) among family physicians in Bahrain. Methods: A systematically developed, anonymous, self administered 13 item questionnaire was mailed to 124 Bahraini family physicians in the Ministry of Health, Bahrain between January and April 2004. The response rate was 65%. Data were analyzed using the Statistical Package for Social Sciences (Windows version 11.00). Results: The respondents (n=81) were mainly female (65.4%) with a mean age of 40 (SD 7.7) years, with 12.7 (SD 8.3) years since graduation. Forty-two percent had attended EBM workshops and 61 % claimed to use EBM in their practice. Those who had attended a workshop were more likely to assert that they were practicing EBM (82% versus 47%;  $p=0.001$ ). Less than 10% selected 'patient's choice' as a component of EBM. The 81.5% of respondents agreed their patients were willing to participate in decision making but 50% felt that only 10-25% of their patients were capable. "No time" (53.1%) and "no ready access to resources" (73.5%) were the most cited barriers, 32% of respondents agreed that EBM is not applicable to their culture. Conclusions: Most family physicians in Bahrain claimed to use EBM in their practice, particularly if they had attended an EBM workshop. However, most of them did not consider patients' values as a component of EBM. A substantial minority considered that EBM is inapplicable to their culture.

**4. Henari FZ, Al-Saie A. Nonlinear refractive index measurements and self-action effects in Roselle-Hibiscus Sabdariffa solutions. Laser Physics. 2006 //;16(12):1664-7.**

We report the observation of self-action phenomena, such as self-focusing, self-defocusing, self-phase modulation and beam fanning in Roselle-Hibiscus Sabdariffa solutions. This material is found to be a new type of natural nonlinear media, and the nonlinear reflective index coefficient has been determined using a Z-scan technique and by measuring the critical power for the self-trapping effect. Z-scan measurements show that this material has a large negative nonlinear refractive index,  $n_2 = 1 \times 10^{-4}$  esu. A comparison between the experimental  $n_2$  values and the calculated thermal value for  $n_2$  suggests that the major contribution to nonlinear response is of thermal origin. © Nauka/Interperiodica 2006.

**5. Lynch CD, O'Sullivan VR, McGillycuddy CT. Pierre Fauchard: The 'father of modern dentistry'. British Dental Journal. 2006 //;201(12):779-81.**

The development of the modern practice of dentistry can be traced to the work and life of Pierre Fauchard, a French dentist who worked in the first half of the eighteenth century. Fauchard was an exceptionally gifted and talented practitioner, who introduced many innovations to dentistry. In a significant break with the tradition of the time, he shared his knowledge and techniques with colleagues, and published these in the first comprehensive dental textbook. This paper reviews his life and contribution to modern dentistry. © British Dental Journal 2006.

**6. Montgomery AJ, McGee HM, Shannon W, Donohoe J. Factors influencing general practitioner referral of patients developing end-stage renal failure: A standardised case-analysis study. BMC Health Services Research. 2006 //;6.**

Background: To understand why treatment referral rates for ESRF are lower in Ireland than in other European countries, an investigation of factors influencing general practitioner referral of patients developing ESRF was conducted. Method: Randomly selected general practitioners (N = 51) were interviewed using 32 standardised written patient scenarios to elicit referral strategies. Main outcome measures: General practitioner referral levels and thresholds for patients developing end-stage renal disease; referral routes (nephrologist vs other physicians); influence of patient age, marital status and comorbidity on referral. Results: Referral levels varied widely with the full range of cases (0-32; median = 15) referred by different doctors after consideration of first laboratory results. Less than half (44%) of cases were referred to a nephrologist. Patient age (40 vs 70 years), marital status, co-morbidity (none vs rheumatoid arthritis) and general practitioner prior specialist renal training (yes or no) did not influence referral rates. Many patients were not referred to a specialist at creatinine levels of 129  $\mu\text{mol/l}$  (47% not referred) or 250  $\mu\text{mol/l}$  (45%). While all patients were referred at higher levels (350 and 480  $\mu\text{mol/l}$ ), referral to a nephrologist decreased in likelihood as scenarios became more complex; 28% at 129  $\mu\text{mol/l}$  creatinine; 28% at 250  $\mu\text{mol/l}$ ; 18% at 350  $\mu\text{mol/l}$  and 14% at 480  $\mu\text{mol/l}$ . Referral levels and routes were not influenced by general practitioner age, sex or practice location. Most general practitioners had little current contact with chronic renal patients (mean number in practice = 0.7, s.d. = 1.3). Conclusion: The very divergent management patterns identified highlight the need for guidance to general practitioners on appropriate management of this serious condition. © 2006 Montgomery et al; licensee BioMed Central Ltd.

**7. Montgomery AJ, Panagopolou E, Benos A. Work-family interference as a mediator between job demands and job burnout among doctors. Stress and Health. 2006 //;22(3):203-12.**

There is an increasing realization that the connections between work and family life are of critical importance in contemporary society. The present study examined the relationship between job demands and burnout, and the mediational role of work-family interference (WFI) in a sample of Greek doctors (N = 162). The main findings are: (1) emotional job demands were found to be a strong independent predictor of both emotional exhaustion and depersonalization; (2) quantitative job demands were found to predict emotional exhaustion; (3) WFI was found to partially mediate the relationship between both quantitative/emotional job demands and emotional exhaustion; (4) additionally, WFI partially mediated the relationship between emotional job demands and depersonalization. The results and limitations are discussed with reference to the medical profession. Copyright © 2006 John Wiley & Sons, Ltd.

**8. Montgomery AJ, Panagopolou E, de Wildt M, Meenks E. Work-family interference, emotional labor and burnout. Journal of Managerial Psychology. 2006 //;21(1):36-51.**

Purpose - The purpose of the current study is to examine the relationship between emotional display rules/job focused labor, work-family interference (WFI) and burnout among a sample of workers in a Dutch governmental organization. Design/methodology/approach - The research is a cross-sectional study of 174 workers from a Dutch governmental organization. Findings - Emotional display rules and job-focused labor were related to burnout and psychosomatic complaints. More specifically, the need to hide negative emotions and engage in surface acting was related to negative outcomes. In addition, WFI partially mediated the relationship between the hiding of negative emotion/surface acting and burnout/ psychosomatic complaints. Research limitations/implications - The present study is cross-sectional and thus the postulated relationships cannot be interpreted causally. Practical implications - In terms of training and/or interventions, there is a need for the worksite to provide structured opportunities for employees to decompress from the emotional demanding aspects of their jobs. Originality/value - Emotional labor has been rarely examined as an antecedent of WFI. In addition, while emotional labor has been studied with individuals in the service sector, it has been rarely examined among individuals whose jobs are highly ceremonial in nature. © Emerald Group Publishing Limited.

**9. Otoom S, Bakhiet M, Khan A, Sequeira R. Prolonged use of phenytoin, carbamazepine or valproate monotherapy on plasma levels of folate and B12: A comparison between epileptic patients with or without cardiovascular disorders. Neuroendocrinology Letters. 2006 //;27(1-2):85-8.**

Purpose: Previous studies showed an association between blood levels of folate and vitamin B12 and the risk for cardiovascular disease. The aim of this study is to investigate the effect of chronic use of phenytoin, carbamazepine or valproate monotherapy on the plasma levels of folate and B12, and to compare folate and B12 levels in epileptic patients with or without cardiovascular disorders. Methods: The study was conducted in the outpatient neurology clinic at Bahrain Defence Force (BDF) Hospital between January-July, 2005. Medical information was obtained by interviewing the patients and examining their hospital records. Blood folate and vitamin B12 were measured by Immulite immunoanalysis assay using chemoluminescence. Results: A total of 26 consecutive outpatients (17 males, 9 females) were recruited in the study. Their mean age  $\pm$  SD was  $38.2 \pm 20.1$  year (range 15-77 year). Five (19.2%) had complex partial epilepsy and the remainder had tonic-clonic seizures. They had epilepsy for  $15.7 \pm 8.1$  years (range 2-35 years). Thirteen of them used phenytoin, nine carbamazepine and four used valproate. The duration of the treatment (years), dose (mg/day) and serum concentration ( $\mu\text{mol/l}$ ) were  $18.3 \pm 10.6$ ,  $376.9 \pm 180.4$ ,  $41.6 \pm 25.6$ , for phenytoin,  $14.5 \pm 11.7$ ,  $422.2 \pm 175.0$ ,  $31.1 \pm 15.9$  for carbamazepine and  $18.3 \pm 6.3$ ,  $400,567.7 \pm 78.1$  for valproate, respectively. Eleven (42.3%) had established cardiovascular disorders such as hypertension, myocardial infarction or stroke. The mean level of plasma folate ( $12.94 \pm 6.76$  ng/ml) and B12 ( $484.94 \pm 191.25$  pg/ml) in epileptic patients with cardiovascular disorders compared to their values ( $11.27 \pm 5.84$ ), ( $514.49 \pm 225.31$ ) respectively in epileptics with no cardiovascular disorders were not statistically significant in the two groups. Conclusion: In epileptic patients on chronic therapy with phenytoin, carbamazepine or valproate folate and B12 levels were not different in patients with or without cardiovascular disorder. © Neuroendocrinology Letters.

**10. Otoom SA, Al-Safi SA, Kerem ZK, Alkofahi A. The use of medicinal herbs by diabetic Jordanian patients. Journal of Herbal Pharmacotherapy. 2006 //;6(2):31-41.**

Diabetes mellitus is the most common metabolic disorder worldwide. To date, there have been no reports on the frequency of use of herb medicines in the managements of diabetes mellitus in Jordan. This cross-sectional study was conducted by interviewing 310 diabetic patients visiting two medical centers in Jordan: Jordan University of Science & Technology Medical Center and Sarih Medical Center between December 2003 and August 2004. It is found that 31% of interviewed patients have used herbal products (96 patients). The results revealed that the most commonly used herbs by diabetic patients in Jordan were *Trigonella foenumgraecum* (22.9%), *Lupinus albus* (14.6%), *Allium sativum* (11.5%), *Allium cepa* (5.2%), *Nigella sativa* (7.3%), *Zea mays* L. (6.3%), *Urtica dioica* L. (8.3%), *Eucalyptus globules* LA (9.4%), *Olea europea* L. (3.1%), *Cuminum cyminum* (9.4%), *Coriandrum sativum* (10.4%), *Salvia officinalis* L. (3.1%), and *Tilia cordata* (1%). Furthermore, it is found that 47.9% of the patients used herbs according to advice from their friends on a daily basis. The side effects were reported by 36.5% of the patients and include headache, nausea, dizziness, itching, palpitation, and sweating. Among the patients, 72.9% used the herbs as adjunctive therapy along with their anti-diabetic drugs and 80.2% of the patients informed their physicians about their use. A 79.2% of the sample confirmed their intention to re-use these herbs as 86.5% of them were satisfied with their diabetes control. There was a significant relationship between the use of herbs, the patient's place of residence and his/her level of education. The main conclusion of this survey is that the use of medicinal herbs among diabetic patient in Jordan is common. Therefore, it is essential to increase the level of awareness among diabetic patients and health care providers regarding the efficacy and toxicity of these medicinal herbs. Copyright © by The Haworth Press, Inc. All rights reserved.

**11. Otoom SA, Al-Safi SA, Sequeira RP, Alkofahi AS. Knowledge of management of epilepsy in young adults in Jordan. Epilepsy and Behavior. 2006 //;9(2):349-54.**

Purpose: Nationwide studies on public knowledge of epilepsy have been undertaken in several countries, but not in Jordan. The purpose of this study was to evaluate knowledge of the management of epilepsy in Jordan. Methods: A cross-sectional study was performed during the period February-June 2005 on 16,044 individuals selected randomly to represent all regions of Jordan. Respondents were interviewed and asked to complete a five-item questionnaire testing their knowledge of the management of epilepsy. Results: Most of the individuals (77.9%) agreed that patients with epilepsy are best treated in a specialized hospital for neurological diseases. Although the largest percentage of the sample (86.7%) agreed that the best person to treat epilepsy is a neurologist, others believed that a hypnotherapist (25.4%) or a religious healer (22.6%) is. As an immediate measure during an attack of epilepsy, most respondents (82.6%) agreed that protecting the patient's head is most important. During the postseizure period, 45.8% of respondents believed that offering the patient water or a cold or hot drink is appropriate. Two-thirds of the respondents (66.2%) agreed that epilepsy can be treated with drugs. Responses of the participants to the five items significantly differed with respect to age, gender, level of education, and occupation. Conclusion: Jordanians are reasonably well informed about most aspects of the management of epilepsy, but there is still a need for public education about this disorder. © 2006 Elsevier Inc. All rights reserved.

**12. Otoom SA, Handu SS, Wazir JF, James H, Sharma PR, Hasan ZA, et al. Veratridine-induced wet dog shake behaviour and apoptosis in rat hippocampus. Basic and Clinical Pharmacology and Toxicology. 2006 //;98(4):423-6.**

We have previously evaluated veratridine as an in vitro model of seizure using conventional electrophysiological recordings in rat hippocampal CA1 pyramidal neurones. The aim of this investigation is to further characterize this convulsant as an in vivo model of seizure. Veratridine was administered intraperitoneally to male Fisher rats in a dose range of 100-400 µg/kg. Within 5 min. after the injections, the animals entered a quiescent period which was followed 10-15 min. later by facial automatism (washing), grooming, masticatory jaw movement and profuse salivation. This phenomenon was followed by the development of wet dog shake and forelimb clonus. The time (mean±S.E.M.) for the onset of induction of these shakes for all tested doses was 31.65±2.85 min. and the number of shakes (mean±S.E.M.) 30 min. after the onset was 17.2±2.85. The onset and number of wet dog shakes induced by veratridine was dose-dependent. No rat death was recorded until 2 weeks after the experiments. Histopathological studies of animals 2 weeks after veratridine administration showed evidence of apoptosis in the hippocampus. Our results indicate that veratridine produced a behavioural pattern of a limbic seizure which mimics temporal lobe epilepsy in man. Based on our previous findings in vitro and of this investigation in vivo, veratridine can be used as an experimental tool to evaluate potential antiepileptic drugs effective against this type of limbic behaviour. © Basic & Clinical Pharmacology & Toxicology 2006.

**13. Otoom SA, Sequeira RP. Health care providers' perceptions of the problems and causes of irrational use of drugs in two Middle East countries. International Journal of Clinical Practice. 2006 //;60(5):565-70.**

It is now evident that both developed and developing countries are experiencing many aspects of inappropriate use of drugs in their health care facilities. This is the first study in the region performed to examine the most common problems of irrational use of drugs and their causes in two Middle East countries - Jordan and Syria. Ninety senior participants from Jordan (50-15 physicians and 35 pharmacists) and Syria (40-12 physicians and 28 pharmacists) were enrolled in this study. The participants were asked to fill two questionnaires that deal with the problems and causes of irrational use of drugs in their country. Additionally, the participants were asked to perform a prescription analysis using WHO prescribing indicators on 40 prescriptions taken randomly from a comprehensive health centre in their country. The main drug use problems identified in the two countries were almost the same, but they vary in the percentage of occurrence and include excessive use of antibiotics and anti-diarrhoeals, overprescribing of nonsteroidal anti-inflammatory drugs, prescribing by tradename, excessive use of antibiotics to treat minor upper respiratory infections and self-medication by the public. The main causes of irrational use of drugs were poor medical records, lack of patient education about illnesses and drugs, no family doctor system, lack of standard treatment guidelines and lack of continuing medical education for doctors and pharmacists. The results of this study are important for decision-makers to utilise when putting policies and strategies to improve the use of drugs in both countries. © Blackwell Publishing Ltd, 2006.

**14. Panagopoulou E, Maes S, Rimé B, Montgomery A. Social sharing of emotion in anticipation of cardiac surgery: Effects on preoperative distress. Journal of Health Psychology. 2006 //;11(5):809-20.**

This study examined associations between social sharing of emotions, social support and preoperative psychological distress. Social sharing was operationalized in terms of quantity and quality. Quantity of social sharing was measured daily using a diary method. Quality of social sharing was measured with the Quality of Sharing Inventory. Participants were 157 hospitalized Greek patients. Hierarchical regression analysis showed that controlling for distress on admission, quality of social sharing was negatively related to distress one day before surgery ( $p < .01$ ). No effects were found for quantity of social sharing. Results emphasize the importance of studying qualitative aspects of emotional disclosure. Copyright © 2006 SAGE Publications.

**15. Panagopoulou E, Montgomery A, Benos A. Quality of life after coronary artery bypass grafting: evaluating the influence of preoperative physical and psychosocial functioning. Journal of Psychosomatic Research. 2006 //;60(6):639-44.**

Objective: The aim of this study was to determine the influence of preoperative physical and psychosocial functioning on quality of life 1 and 6 months after coronary artery bypass grafting (CABG). Methodology: The study used a prospective design. A total of 157 patients admitted for elective CABG in a Greek city hospital participated in the study. Results: Results showed significant improvements in the quality of life of the patients after CABG [ $F(2, 95)=36.337$ ;  $P<.001$ ]. Structural equation modeling analyses showed that preoperative psychological distress was the only preoperative predictor of quality of life at 1 month ( $\beta=-.22$ ;  $P<.01$ ) and at 6 months ( $\beta=-.28$ ;  $P<.001$ ) after the operation. Conclusion: Results highlight preoperative distress as a screening criterion to identify patients likely to benefit less from cardiac surgery. © 2006.

**16. Panagopoulou E, Montgomery A, Benos A. Burnout in internal medicine physicians: Differences between residents and specialists. European Journal of Internal Medicine. 2006 //;17(3):195-200.**

Background: Burnout poses a substantial problem for physicians' well-being and for the quality of health care. The role of workload in comparison to subjective work characteristics has been rarely studied. The purpose of this study was to explore the associations of burnout with workload and subjective work characteristics in internal medicine specialists and residents. Methods: A cross-sectional study using an anonymous mailed survey was used. Some 103 specialists and 143 residents participated in the study. Burnout was measured using the Maslach Burnout Inventory. Subjective work characteristics included perceived job demands in terms of time pressure, mental effort and emotional labor. Workload was assessed in terms of average number of hours worked per week. Results: Emotional exhaustion in medical specialists was only predicted by perceived job demands [odds ratio 3.7 (CI 1.7-7.9),  $P < 0.001$ ]. Emotional exhaustion in medical residents was only predicted by emotional labor [odds ratio 1.9 (CI 1.2-3.0),  $P = 0.003$ ]. Depersonalization among medical specialists was only predicted by emotional labor [odds ratio 2.7 (CI 1.1-6.7),  $P = 0.032$ ], while depersonalization among medical residents was only predicted by number of hours worked per week [odds ratio 1.1 (CI 1.1-1.2),  $P = 0.007$ ]. Discussion: Perceived working conditions were more important than workload in explaining the variance in



burnout. In addition, burnout in medical specialists and residents was linked to different characteristics of their working environment. © 2006 European Federation of Internal Medicine.

**17. Panagopoulou E, Montgomery AJ, Benos A, Maes S. Are people emotionally predisposed to experience lower quality of life? The impact of negative affectivity on quality of life in patients recovering from cardiac surgery. Social Indicators Research. 2006 //;76(1):55-69.**

Negative affectivity has been defined as a predisposition to experience intense states of negative emotions. As a trait concept it is a dimension that reflects stable and pervasive differences in negative mood and self-concept. There has been systematic evidence linking negative affectivity to anxiety, depression, psychosomatic complaints, pain symptoms, and adherence to life style changes. Several studies have demonstrated a link between negative affectivity and quality of life. However, as the majority of these studies have been cross-sectional, it has been difficult to establish causal relations between quality of life and negative affect. The present study is a longitudinal investigation of negative affectivity and quality of life in patients undergoing coronary artery bypass grafting (N = 157). Negative affectivity and quality of life were assessed with the Positive and Negative Affect Schedule (PANAS) and with the MacNew Quality of Life after Myocardial Infarction Questionnaire (MacNew QLMI) on admission day, one, and six months after the operation. Causal and reciprocal relationships were tested using a cross-lagged designs analysis via structural equation modeling. Results indicated that the causal model represented the best fit to the data. Results of the study are discussed in terms of the clinical importance of identifying patients at risk of experiencing severe restrictions in their quality of life. © Springer 2006.