ACIENTIFIC ACT Australia

Women, Anxiety and Type 1 Diabetes Management - The Right and Wrong Way!

Authors:

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Background

Diabetes is an increasing cause of healthcare burden worldwide. Substantial self-management of this condition is required and high levels of distress and anxiety may result, which in turn can increase morbidity and mortality. Various literature suggests diabetes-related anxiety is more prevalent in women than men. Collaborative relationships with healthcare providers are known to improve physical and mental health. Despite this knowledge, anxiety and distress in women is relatively understudied in the setting of Type 1 Diabetes Mellitus (T1DM).

Material and Methods

Data was obtained from the 2011 Diabetes-MILES study in Australia; a postal survey distributed to 15,000 randomly selected adults from the National Diabetes Services Scheme database. There were 3,338 respondents in total. 1355 respondents with T1DM were analysed (535 male, 820 female). Anxiety scores were calculated using the Generalised Anxiety Disorder questionnaire (GAD-7). Levels of diabetes distress were determined using the Diabetes Distress Scale (DDS17) and the Problem Areas In Diabetes (PAID) score. Potential interventions for women were studied.

Results

Moderate to severe anxiety was prevalent in 13.8% of males and 15.9% of females. Mean anxiety and distress scores were higher in women. 55% of women had seen a Diabetes Nurse Educator (DNE), which was associated with higher anxiety and distress scores. Significant reductions in distress levels in women were found when setting management goals, obtaining patient input about management, and with regular teaching on management of complications.

Conclusion

Increased anxiety and distress are associated with seeing a DNE. Two possible explanations are: that DNEs directly increase anxiety and distress; or that patients who visit DNEs are more prone to anxiety and distress.

Possible beneficial strategies include setting management goals, identifying patients' management values, and regular patient education on managing diabetic complications. Further studies into diabetes-related anxiety are needed.

Hong Kong

<u>Detecting the 'Cantonese cancer': A meta-analysis of the nasopharyngeal</u> carcinoma biomarkers

Authors

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Name of Chapter: Hong Kong

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Background of Study

Nasopharyngeal carcinoma (NPC) is highly prevalent in Southeast Asia and represents the seventh most common cancer in Hong Kong. Early screening and diagnosis of this cancer has been suggested by some studies to be beneficial to the prognosis of the disease. Various techniques have been developed for these purposes; however, few studies directly compare the effectiveness of such techniques. This study aims to investigate the relative efficacies of serum anti-Epstein-Barr Virus (EBV) viral capsid antigen (VCA) IgA antibody levels with serum EBV DNA levels in diagnosing patients with NPC.

Material and methods

A meta-analysis was conducted by collecting datasets for VCA-IgA and DNA independently. Figures including sensitivity, specificity, positive and negative predictive values were collected to compare the efficacy of each method. Data were pooled using random effects models and analyzed.

Results

The odds ratio for both EBV DNA and VCA IgA in relation to NPC was statistically significant, with EBV DNA exhibiting a stronger association. EBV DNA was found to be a more sensitive marker than VCA IgA, whereas VCA IgA showed greater specificity, and higher positive and negative likelihood ratios.

Both markers demonstrated similar results on the receiver operating characteristic curve, with EBV DNA demonstrating a slight advantage in balancing specificity and sensitivity.

Conclusion

Our meta-analysis suggests that both VCA IgA and EBV DNA are good markers for the detection of NPC. However, EBV DNA was shown to be a more effective for screening due to its higher sensitivity, whereas VCA IgA was more preferable for diagnosis due to its high specificity.

Early detection is crucial for diagnosing NPC and in improving prognosis. Hence, a good primary NPC screening protocol, such as the use of serum EBV DNA, is important for early detection of NPC and in the improvement of treatment outcomes.



ASSESSMENT OF HEALTH PROFILE AND RELATIONSHIP BETWEEN HEALTH DISORDERS WITH WORK-RELATED ABUSE OF HOUSEMAIDS IN DELHI

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BACKGROUND OF THE STUDY

Housemaid is a female servant employed in domestic work like cleaning house, mopping floors, laundry and cooking. In India there are no laws to regulate the placement agencies for housemaids or even to define the rights of India's unofficially estimated 90 million domestic workers. These women belonging to low socio-economic class are subjected to heavy workloads and are thus prone to high health risks.

Objective: To assess the health profile of housemaids in Delhi and compare the prevalence of health disorders with work-related abuse.

MATERIAL AND METHODS

A cross-sectional study was carried out among 315 female housemaids from 9 geographical zones (35 per zone) of Delhi working full-time/ part-time since at least 1 year. Interim data using a subset of 69 housemaids (Age: 31.28 \pm 8.12 years) was analysed. Data was collected using a self-designed questionnaire after obtaining a written informed consent. Chi-square test/ Fischer's exact test (p < .05) was used to associate work-related abuse and various disorders. Data was analysed using SPSS, Version 16.0.

RESULTS

Majority of housemaids were in age group 30-39 years (47.1%), mainly immigrants from Uttar Pradesh (33.3%), working since 11.75 ± 7.52 years and were illiterate (76.5%). Health Profile: Chronic smokers (4.3%), tobacco abusers (20.3%) and alcoholics (2.9%). Back pain (52.2%), bursitis (36.2%) and hypotension (23.2%) were major disorders reported. 23.2% reported abuse, mostly verbal. Psychiatric illness (23%) was significantly associated with abuse (p = 0.001). Unintentional fall injuries, burns and scalds were significantly related (p < 0.003) to long working hours (9-12 hrs/day).

CONCLUSION

Housemaids in Delhi are exposed to definite physical and psychological stressors and thus suffer from various disorders, especially psychiatric illnesses and musculoskeletal disorders. Both physical and psychiatric evaluations should be performed at regular intervals along with strict regulatory measures to ensure a healthy lifespan.

Indonesia

<u>Posyandu Lanjut Usia: A Strategic and Integrative Method to Improve Geriatric Health against Burden of Non-Communicable Diseases, a Scientific Review</u>

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ABSTRACT

Background. The global healthcare faces increase in the geriatric population, defined as individuals whose age is above 60 years old, as a consequence of the rise of worldwide life expectancy, and Indonesia is no stranger to this shift. As people increase in age, they are at risk of many non communicable diseases, with common problems grouped in 'geriatric giants' which is comprised of fourteen predicaments. Prevention is still considered as the best method to avoid diseases of the old age, and Indonesia's *Posyandu Lansia* (Integrated Geriatric Health Service) to carries out integrative geriatric care and disease prevention. In this research, the pros and cons of *Posyandu Lansia* will be reviewed, and the research aims toward better program awareness and management.

Materials and Methods. This research compared Indonesian geriatric healthcares in Indonesia, particularly *Posyandu Lansia*, with other nation's geriatric healthcare, along with the evaluation of *Posyandu Lansia* in Jakarta's Primary healthcare centre. The research data was collected on March 2013.

Result. The result revealed the functions, properties and programs in *Posyandu Lansia*, and they cover six criteria of the Active Ageing Concepts: physical, emotional, intelligence, social, vocational, and spiritual. The programs in *Posyandu Lansia* itself are not restricted to medical procedures, but they are aimed to monitor geriatric's health and quality of life. Activities are recorded in *Kartu Menuju Sehat* in order to monitor their progress toward overall healthiness. Such activities include anthrophometric measurements, routine laboratory examinations for heart and kidney diseases, functional status assessment to examine the person's capabilities of conducting daily normal functions, and counseling and education for both the patient and their family.

Conclusion. The implementation of *Posyandu Lansia* does not live up to the available guidelines. Improvements such as integration of *Kartu Menuju Sehat* with Comprehensive Geriatric Assessment are proposed to solve the issue.



Effective Use of Prenatal Diagnosis and Improvement of Social Supports Increase the Quality of Life of the Handicapped

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Nowadays, creating a better society for people with handicap is an urgent issue. Statistics show that the age of woman becoming pregnant are getting older in Japan. Bearing a child late in their lives not only increases the risk of mothers' lives, but also raises the rate of bearing a child with handicap. Furthermore, a new method for prenatal diagnosis has been implemented since April, 2013. This method is less harmful to both expectant mother and her baby. Through the introduction of such new technology into prenatal diagnosis, we can get the inspection easily. However, because of this, we have to wrestle with more difficult issues than ever.

On discussing this subject, we are going to combine two ways of thinking which seems to conflict with each other: "health economics" and "medical ethics." In our poster, we use logic of double standard. Our main suggestions are as follows: "to conduct more prenatal diagnosis, and decrease the number of handicapped babies" and "to support the challenged after their birth, and make it possible for them to receive enough help from the society."

In order to remove the worries of bearing handicapped babies, the promotion for pregnant women to take prenatal diagnosis is effective. This promotion campaign will raise the artificial abortion rate, because more people choose abortions if they received undesirable results. This may seem unethical. However, from the viewpoint of medical economics, it is not always true. For example, by promoting prenatal diagnosis, the number of the handicapped will get smaller. This means that the governmental support for each of them becomes greater.

Therefore, prenatal diagnosis can surely have ethical effects as well as economic effects; "health economics" and "medical ethics" go together. By this way, we can realize a society in which handicapped people can lead a comfortable life.



Environmental Health related to Chemical Exposure : Hydrofluoric acid Exposure in Korea

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Background of the Study

In September 27th 2012, around 8 tons of hydrofluoric acid leaked from a factory in Gumi, killing five workers and injuring 18 others. The health damage of the chemical leak in Korea was greater than what it could have been due to several reasons. Thus, this topic was selected to raise the general awareness of the often misunderstood and underestimated severity of chemical exposure, specifically, to hydrofluoric acid. Furthermore, we advocate for the need to evaluate the currently existing preparation plan and to make necessary improvements so that no such disaster like "Chemical exposure in Gumi" happens again in the future.

Material & Methods

In this paper, the response to a chemical exposure is discussed based on Chemical Safety Law and Toxic Substances Control Act

Results

- 1) Government Response
 - Government did not follow this Standard Manual when the leak occurred.

2) Community Response

 Local authorities were slow to evacuate workers at the factory and residents in nearby regions.

3) Personal Response

- The widespread misunderstandings of hydrofluoric acid were responsible for the inaccurate and over-expressed sense of danger and fear.

<Proposed Solutions>

- 1) Government
 - Organize a group composed of experts and non-experts for management and monitoring.
 - Improve the communication skills of the government

2) Community

- Organize a network between local hospitals and local chemical firms.
- Emergency drills should be developed and carried out on the community level.

3) Medical Students

- Students can conduct campaigns with the goals to deliver the right information about chemical exposure.
- Arrange special lectures on chemical exposure for medical students.

Conclusion

In this paper, efforts to raise the public awareness of the danger associated with chemical exposure and to minimize the harm in times of crisis are discussed on the three different levels - the central government, local community, and each individual. This paper also assesses the social responsibility of medical students and recommends their role in such efforts.

Malaysia

<u>Determine the usefulness of vitalograph as a screening tool in detecting COPD in Malaysia.</u>

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Objective

Chronic Obstructive Pulmonary Disease (COPD) is a chronic disease with high morbidity and mortality. Early detection together with quit smoking intervention have been shown to be effective in retarding the disease progression.

The golden standard tool in diagnosing COPD is spirometry, but this tool is only available in the tertiary hospital in the developing countries. Vitalograph is a portable hand held spirometer, which is cheap and user friendly. However, little study done on the usefulness of vitalograph as the screening tool in detecting COPD, especially at the primary care setting. Thus, this study was conducted to determine the usefulness of vitalograph as a screening tool in detecting COPD in local setting.

Method

This was a cross sectional study among chronic smoker in primary health care setting. Patient aged over 40 years old with at least 10 pack-years of smoking were enrolled into the study. COPD is defined as the post-bronchodilator FEV1 over post-bronchodilator FVC ratio value less than 0.70. Air Flow Limitation is defined as FEV1/FEV6 ratio less than 0.75. Ethics approval was obtained from the National Malaysia Research Registry (NMRR-11-456-9126).

Result

A total of 266 patients was recruited into this study. The median age of the study population was $52\pm$ 15 years and 99.6% were male. The median pack-years was $20\pm$ 17. 44.4% and 39.5% of patient has underlying hypertension and dyslipidaemia respectively. The prevalence of airflow limitation based on the vitalograph was 11.3% whereas the prevalence of COPD based on spirometry was 7.1%. The sensitivity and specificity of the vitalograph was 57.9% and 92.3% respectively (p<0.001). The positive predictive and negative predictive value was 36.7% and 96.6% respectively.

Conclusion

The prevalence of COPD among chronic smoker with a minimum of 10 pack-years was relatively low. Vitalograph is a good tool in ruling out the presence of COPD in view of its high specificity; however, those chronic smokers with symptoms are warranted a further test despite vitalograph was negative for the COPD.



The study of correlation between Intellectual Impairment and Blood Lead Level among 6 to 8 years old Children in Ulaanbaatar

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Abstract

Background of the study

Lead poisoning is one of the major public health problem in developing countries. Lead is neurotoxic and young children are at particular high risk for exposure. According to previous research done in Mongolia in 2009, the average blood lead level (BLL) among children in Ulaanbaatar was 16.54±9.50 ug/dl, which is higher than the WHO's recommended level (>=10 mg/dl).

Material and Methods

We will measure blood lead concentrations in 300 children at 6 to 8 years old of age and administer the IQ test which standartized by the Mongolian Ministry of Health during the April and May of 2013. We will use LeadCare II Analyzer Kit apparatus to measure BLL in children from 8 selected primary schools in Ulaanbaatar. The relation between IQ and BLL estimate with the use multivariable linear and nonlinear mixed models, with quality of the home environment, and other potential confounders. STATA12 will be used for statistical analysis.

Results

The BLL is associated with IQ scores in children living in UB. We expect to BLL in children is increased from last parameter (mentioned above). Air pollution and petrol station are significantly associated with BLL in Children.

Conclusion

Due to high exposure of lead in Ulaanbaatar the LeadCare II analyzer kit can be used for screen purpose. Our government has to make strategy to reduce lead sources and medical students need to promote and educate environmental health education to citizens. Source of the lead exposure needs to be identified.



MATERNAL MORTALITY DUE TO HEMORRHAGE - ROLE OF COMMUNITY

Authors:

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Introduction

According to the Pakistan Demographic and Health Survey from 2009-2010 the maternal mortality ratio is 260 per 100,000 live births. Postpartum Hemorrhage is major cause of maternal deaths in Pakistan.

Objective:

The objective of this study is to collect available information from the hospital about maternal mortality rates (MMRs) due to Hemorrhage.

Methodology

This is a retrospective study. We used the record of gynecology department of a tertiary care hospital.

Area and Duration of Study: This study was conducted in the Department of Obstetrics and Gynecology Unit 1, MCH center of Pakistan Institute of Medical Sciences (PIMS), from January 2012 to February 2013.

Results:

Total number of gynecological admissions during the study period were 1231, out of these 118 (9.5%) patients developed PPH. The booked (admitted) patients were 43 (36.4%) while 75 (63.5%) patients did not attend any MCH clinics. Out of 1231, eleven deaths occurred, six of them took place because of hemorrhage.

Conclusion:

Maternal Mortality rate in Pakistan is even higher than our study. The available data as the data was collected from a tertiary care hospital where number of deaths is far less, due to quality of care and expertise. Whereas over 70% of Pakistan's population lives in rural areas where there are no tertiary care hospitals. Despite the attention paid, MMR continues to remain high. To overcome this objectionable state of maternal health it is proposed that: The provision of skilled care and timely management of complications of delivery can lower the maternal mortality in our setup.

Over 70% of Pakistani population lives in rural areas. LHV system should be introduced and made available from door-to-door.

Programs should be organized to train and utilize the TBA's (Traditional birth Attendants) widely.

Setting up of EmOC services.



Health Seeking Behaviours of Migrant Workers on Work Permits to Primary Healthcare in Singapore

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Abstract

BACKGROUND

Singapore currently employs approximately 264,000 migrant workers under work permits (for unskilled and low skilled jobs, such as in construction and marine trades). They face significant barriers to accessing healthcare, most notably in the removal of all public sector healthcare subsidies in 2008. This study aims to study the health seeking behaviours of migrant workers by determining their knowledge, attitudes and beliefs of health as well as elucidate barriers and enablers that influence their utilisation of primary healthcare services in Singapore. It also aims to study the knowledge, attitudes and beliefs of healthcare providers towards primary healthcare provision for migrant workers.

MATERIALS AND METHODS

We hypothesised that migrant workers on work permits currently face significant obstacles in accessing primary healthcare, including but not limited to financial difficulty. A qualitative study consisting of in depth interviews and key informant interviews on 16 workers and 4 doctors respectively was done followed by a thematic analysis.

RESULTS

Analysis showed the existence of certain prominent themes, but there was heterogenity in the extent and types of barriers and enablers faced by the workers. Major barriers impeding access to healthcare for workers included financial issues and usage of alternative medicine. Major enablers included knowledge of workplace procedures and ease of granting leave.

CONCLUSION

In general, the number, types and quality of barriers exceed the enablers aiding migrant workers access primary healthcare, and almost all reported some extent of difficulty in accessing healthcare services. We propose some steps in which both doctors and medical students can take to aid migrant workers in overcoming these barriers to accessing primary healthcare in Singapore, such as through health education and health advice.



Silent killer

Name of Delegate in Charge: Yu-Ching Huang, Yi-Chia Liaw

School of Presenters: Chung Shan Medical University

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Advisors: Professor Chien-Ning Huang (Department of Medicine)

Professor Yung-Po Liaw (Department of public Health)

Abstract:

According to the statistics revealed in 2009 by the Department of Health, diabetes is ranked the fifth on the top-ten list for the Cause of Death in Taiwan. Recent studies have shown that cancers link to type 2 diabetes and mainly attributed to diabetes itself.

Our goal of this research is to find the attributed risks of cancers among diabetes patient. Our data come from Longitudinal Health Insurance Databases in 2005(LHID2005). After excluding patients with cancers at year of 2001 to 2003, and 18 years old or younger, the remaining patients will further divide in to two groups, DM and Non-DM. The developments of cancers are followed throughout this research. Subjects who did not have diabetes in 2001 to 2003 but developed diabetes during 2004 to 2010 were ruled out. The observational period is from year of 2004 to the year of 2010. The incidence, risk difference (RD) and the attributed risks (AR) of each cancer were calculated.

For men, age group of 18 to 45, 45 to 65 and 65 above, the attributed risks for liver cancer are 60.8%, 47.6% and 29.1 respectfully. For women, age group of 18 to 45, 45 to 65 and 65 above, the attributed risks for liver cancer are 60.8%, 55%, and 32.9 and for breast cancer are 32.7%, 17.4%, and 45.7 respectfully. Among diabetes patients, the attributed risks (AR) for liver and breast cancer are relatively high compare to other cancers. With this result, we hope to provide better guideline for department of health to make better decision and ease the burden of medical cost in our community.

Thailand

The knowledge of Veronica (Vernonia cinerea Less.) as an alternative therapy to abstain from smoking

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According to the National Statistical Office, a percentage of Thai smokers have increased significantly from 16.5% in 2007 to 21.4% in 2011 which made lung cancer become the fifth most deadly disease in Thailand. There were two outstanding experiments in 2012 regarding the use of little ironweed or purple fleabane or Veronica (Vernonia cinerea Less). One has shown that the nitrate compounds in Veronica can potentially aid smokers in abstaining from smoking (Suppakit et al., 2012). The other experiment "coffee for smoking recession" stated that smokers were less addicted after they drank a cup of coffee which Veronica, a Thai herb, was added (Somruthai, 2009). Unfortunately, only few Thais know of this ubiquitous Thai herb's benefits in smoking recession. As such, our research consists of a review of the policies and campaigns implemented by the government and relevant health organizations regarding smoking and a descriptive survey study of the understandings and benefits of the Veronica (Vernonia cinerea Less) was conducted in Thammasat University Hospital. Based on our questionnaire, 22.7% are smokers. Even though most of the people are interested in the alternative traditional way using Veronica to quit smoking, 80.6% have nerver heard of Veronica. Nevertheless, 92.2% are eager to know more about this Thai herb. Surprisingly, 58.9% have seen Veronica before but never know its usefulness. In conclusion, most Thai are unaware that Veronica is a common Thai herb which evidently can help in smoking abstinence and is already included in National list of essential medicines (NLEM). They also would like to know more and be willing to try this alternative therapy. As medical students, we should promote the use of Veronica more since it is safer and scientificly effective. Usually, smokers' strong wills alone is not enough.

United Kingdom

Awareness of Depression and Mental Health Services amongst Students

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Background

With the increasing prevalence of depression amongst university students and its association with lower academic achievement, the capacity of the student population to recognize depression and seek help has become increasingly pertinent. This study endeavors to establish whether knowledge of depression raises confidence in spotting the condition in another student, and whether awareness of a particular healthcare service would increase the likelihood of its use. The students' preferences for various mental health services were also investigated and differences in help seeking behavior between Home and International students explored.

Materials and Methods

A survey was distributed both electronically and in the form of leaflets at 3 London Universities between 4th March and 10th March 2013. 408 responses were obtained; 85% [n=345] were Home/EU students and 15% [n=62] were International.

Results

Students who displayed high knowledge of depression in the survey were more confident about identifying depression in fellow students (χ^2 = 32.25, critical value=7.81). A strong positive correlation was also established between the awareness of a particular mental health service and its preference in being accessed (ρ = 0.821, ρ =0.023). Home students favored visiting the general practitioner as their first choice (50%, ρ =168) followed by university counseling services as their second choice (40%, ρ =136). The converse was true for international students, with 45% favoring university counseling [ρ =29] and 31% seeking the general practitioner [ρ =20]. Both Home (29%, ρ =99) and International (5.3%, ρ =17) groups placed hospital services as their third choice.

Conclusion

Greater awareness of depression and mental health services would instill greater confidence in identifying the condition and increase the likelihood of seeking help from relevant services. The preference of international students for university counseling services could imply a lack of familiarity with the British healthcare system. This underscores the importance of appropriate measures to educate the student population.