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Abstract

Assessment of metabolic syndrome prevalence and its components among rural Bangladeshi women

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Abstract

Objective: Metabolic syndrome (MS) is described as a cluster of abnormalities that confers an increased risk of developing atherosclerotic cardiovascular diseases and also type 2 diabetes mellitus. MS is now considered a global epidemic; with current estimates revealing that about 20-30% of the adult population worldwide is affected by this syndrome. The purpose of the present study was to assess the prevalence of metabolic syndrome related disorders in women of rural Bangladesh. Methods: In the present study, a total of 1485 apparently healthy rural Bangladeshi women aged ≥15 years were studied using a population based cross-sectional survey according to the World Health Organization's STEPS approach (modified). The prevalence of MS was estimated using NCEP ATP III, modified NCEP ATP III and IDF criteria. Results: The prevalence rates of MS were 25.05% (NCEP ATP III), 35.56% (modified NCEP ATP III), and 17.51% (IDF), as revealed by the present study. Furthermore, 10.03% had excess waist circumference, 29.43% had elevated blood pressure, 30.57% had elevated fasting plasma glucose level, 85.05% had low HDL values and 26.87% had increased triglyceride values. Low plasma HDL level was found to be the most common abnormality in this population. Elevated waist circumference was the least frequent component. Conclusions: The present study shows a high prevalence of MS and its associated risk factors in rural Bangladeshi women. These findings are important in that they provide insights that should be helpful in formulating public health policy and in the development of future health prevention strategies in Bangladesh.

Abstract

Paradoxical changes in Community medicine course curriculum

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Abstract

Background: There are many paradoxical changes in new BMDC course curriculum for undergraduate medical students. Community medicine is badly affected which will ultimately affect public health. To focus into that changes we have written this article. Methodology: This is a review article. We studied previous course curriculum, present course curriculum, national health policy (draft) and course curriculum of some other countries before writing this article. Results: Contents of community medicine has been increased but allotted time is drastically decreased. Only 05 hours are allotted in first year to teach behavioral science but students do not bother to attend classes as there is no evaluation system to compel them to learn behavioral science. There is a provision for integrated teaching but we are allowed to teach epidemiology, prevention and control only. We cannot understand without diagnosis and effective management how diseases could be prevented and controlled. Moreover, we have to teach communicable and non communicable diseases in 3rd year without basic knowledge on pathology, microbiology and pharmacology. This is ridiculous and utopian. Conclusion: Development of community medicine means reduction of burden of health problems. So, the subject should be given proper space in BMDC course curriculum.

Disruption of components of VEGF angiogenic signaling system in metabolic syndrome: Findings from a study conducted in rural Bangladeshi women

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Abstract

Introduction: Metabolic syndrome (MetS) is associated with impaired angiogenesis, a process that is chiefly regulated by the vascular endothelial growth factor (VEGF) upon binding to its specific receptors, VEGF-R1 and VEGF-R2. VEGF is a key architect of both of vascular processes, i.e., angiogenesis and vasculogenesis, by acting as an activator and survival factor for endothelial cells in newly formed blood vessels. The effects of VEGF are mediated by two receptors, namely VEGF-R1 and VEGF-R2. Soluble isoforms of VEGF receptors, named sVEGFR-1 and sVEGFR-2, are detected in blood circulation and are known to act as anti-VEGF agents. The purpose of the present study was to assess trends or patterns in plasma levels of VEGF and its soluble receptors in subjects with (MetS) or without (non-MetS) MetS; and further examine their association with clinical or metabolic parameters using a subpopulation of South Asian country. Methods: The present study is a community-based cross-sectional study performed on women from rural Bangladesh. A total of 1802 participants aged ≥15 years were selected using stratified multistage random sampling. This sample size (1802) was sufficient to test all our formulated research hypotheses at the 5% level of significance, with a power of 80% (β=0.20). We used the World Health Organization's (WHO) STEPS approach (modified), which entails a stepwise collection of the risk factor data. Results: Plasma levels of VEGF were found to be significantly increased (MetS vs. non-MetS: 483.9 vs. 386.9, p<0.001), whereas, the soluble forms of VEGF receptors, sVEGF-R1 and sVEGF-R2, were significantly decreased in subjects with Mets (sVEGF-R1, MetS vs. non-MetS: 512.5 vs. 631.3, p<0.001; sVEGF-R2, MetS vs. non-MetS: 9,302.8 vs. 9,787.4, p=0.004). After adjustment for age and all potential variables, multiple regression analysis revealed that plasma levels of VEGF had significant positive association with blood glucose (p = 0.019) and body mass index (p = 0.007). We also found that mean plasma levels of VEGF increased in direct proportion to levels of MetS components. Conclusion: The present study is the first ever to demonstrate a positive association between trends in levels of plasma VEGF and MetS using a large sample size from South Asia. The association between plasma VEGF and MetS needs further investigations in order to clearly decipher the clinical predictive value and accuracy of plasma VEGF in MetS.

Prevalence of metabolic syndrome components among early age onset acute coronary syndrome patients in Bangladesh

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Abstract

Background: Metabolic Syndrome (MetS) is a major risk factor for coronary artery disease. The prevalence of metabolic syndrome and coronary artery disease is increasing in South Asian developing country like Bangladesh. A large number of young population with acute coronary syndrome have MetS. Objective: Aim of this study was to determine the prevalence of metabolic syndrome and the combination of components in patients with early age onset(age<50 years) acute coronary syndrome. Methods: This is a prospective study comprised 750 consecutive patients age <50 years hospitalized for acute coronary syndrome. The patients were categorized according to the criteria stated in the latest joint statement for the global definition of metabolic syndrome. Results: Among 750 acute coronary syndrome patients (561 were male, 197 female), 229 (31.11%) patients met the criteria of MetS. The mean age of study participant was 43.25 ± 0.27 years. MetS was more common in female than in male (45.71% VS 26.56%, P< 0.001). One component of MetS was found in 28.13%, two components in 29.87%, three components in 30.67% of acute coronary syndrome patients. The most highly two prevalent components of MetS in this study population were low HDL (51.8%) and high triglyceride level (44%). Conclusions: We conclude that prevalence of metabolic syndrome in patients with early age onset (Age <50 years) acute coronary syndrome is high in Bangladesh. Low HDL and high TG are the most common components of metabolic syndrome in our study. Strategies are needed for the early detection and treatment of cardiometabolic risk factors to prevent coronary artery disease progression and prognosis.

Anxiety and Depression among the Students of a Selected Private Medical College in Dhaka City

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Abstract

Background: There is considerable evidence that rate of depression and anxiety are higher in medical students and it continues to remain elevated when the students become physicians. An extensive search failed to locate any study which shows the status of anxiety and depression in undergraduate medical students in Bangladesh. Objective: This study was done to find out the status of depression and anxiety among 3rd and 4th year MBBS students of a selected private Medical College. Methods: A cross sectional descriptive study was carried out during November 2013 to March 2014 among the 3rd and 4th year MBBS students. Students completed the Hospital Anxiety and Depression (HAD)scale and a questionnaire about socio-demography and stressors. The data were analyzed by SPSS software and presented by frequency distribution regarding demographic variables and variables related to anxiety, depression and stress. Results: Majority of the students (74.5%) were in 20-22 years age group. Majority were female (65.1%) and rest (34.9%) were male; unmarried was 93.3%. About 92.6% lived in Dhaka; 83.9% from Bangla medium while 16.1% from English medium. Among them 59.7% were 4th year while the remaining 40.3% were 3rd year students; 77.9% were learning individually and remaining 22.1%in group. Among them 59.7% passed 1st professional MBBS exam irregularly and 40.3% passed regularly. MBBS course willingly selected by 73.8% and 26.2% by parent's pressure. The most common stressors were difficult to understand content (57.7%), falling behind in study (56.4%), vast syllabus(53.7%), heavy workload(45.6%),self-expectation (33.6%). Anxiety was present in 139 (93.3%); mild symptoms of anxiety were in (28.9%), moderate in (49.7%) and severe in (14.8%). Depression was present in 100(72.8%); mild symptoms of depression in (53.0%), moderate in (20.1%), and severe in (0.7%) students. Conclusion: The results showed that anxiety and depression was found to be high among medical students. So anxiety and depression may be a significant hidden problem in Medical students of Bangladesh and mechanism to identify and help students with mental health problems should be seriously considered.

Key Words: Anxiety, Depression, Stress, MBBS, Medical Students.

An investigation on the nationwide prevalence and associated risk factors of anemia in reproductive ever married women in Bangladesh

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Abstract

Background: Anaemia is a major global health issue, primarily affecting women of reproductive age and children. There are multiple adverse effects of anemia on human function, particularly on women. However, the determinants of anemia in many epidemiological settings are poorly understood. The current study mainly aims to investigate the nationwide levels and associated factors of anemia in ever married reproductive women in Bangladesh. Methods: We included participants from the 2011 Bangladesh Demographic and Health Survey, which collected data on socio-demographic and maternal health and determined haemoglobin levels from blood samples. Logistic regression was used to identify risk factors, population-level impacts were estimated as population attributable fractions and spatial analytics were used to identify regions of highest risk. Findings: Of 6699 women, total 41.8% were anemic (any type of anemia) with a prevalence of 35% of mild anemia and 6.8% of moderate/severe anemia. In this population, the main significant risk factors are: age, low BMI, hindu religion, geographical region, poor wealth status, current pregnancy, current breast feeding, higher parity, less use of contraceptive pill, menstruation in last six weeks, number of birth in past year. There was no association with educational level, urban/rural residence, type of cooking fuel, source of drinking water, type of toilet facility in adjusted analysis. Conclusion: The aim of this research is to explore risk factors for anemia among women of reproductive age, to provide guidance for maximizing the impact of limited health resources in Bangladesh. Prevention interventions should target women with lower nutritional status with poverty, less utilization of family planning services, and women who are pregnant and who are in breast feeding status, particularly if they are in lower wealth groups. In addition Rangpur division needs the highest preventive measures on anemia for women of reproductive age in Bangladesh.

Higher level of endothelin-1 in metabolic syndrome in Bangladeshi rural women as observed in a population-based cross sectional study

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Abstract

Background: Metabolic syndrome (MetS) is a constellation of metabolic disturbances, as well as a well-established predictor of cardiovascular diseases (CVD), type 2 diabetes and their associated mortalities. Metabolic alterations and endothelial dysfunction are interrelated processes in type 2 diabetes and metabolic syndrome (MetS) that often develop in parallel. Endothelin (ET) is the most potent endogenous vaso-constricting factor known in the body and is derived from endothelial cells of the venous and arterial vessels. It (ET) functions as both a circulating hormone and a paracrine factor and is involved in regulating vascular tone, and, consequently, blood pressure In this study we assessed the association of vasoactive peptide, ET-1 with Mets conducted in a study in rural Bangladeshi women. Design and methods: The present study is a community-based cross-sectional study performed on women from rural Bangladesh. A total of 1236 participants aged ≥15 years were selected using the stratified multistage random sampling. We used the World Health Organization's (WHO) STEPS approach (modified), which entails a stepwise collection of the risk factor data, based on standardized questionnaires covering demographic characteristics, somatic illnesses, somatic and mental symptoms, medications, life style and health-related behaviours (step 1), basic physical measures (step 2) and basic biochemical investigations, such as blood glucose and cholesterol (step 3). Plasma level of ET-1 was measured by ELIZA and metabolic syndrome was defined according to the criteria of NCEP-ATP III. Logistic regression was used to estimate the association between circulatory ET-1 level and metabolic syndrome and its components. Results: A total of 1236 rural Bangladeshi women aged ≥15 years were studied using a population based cross-sectional survey. The prevalence rate of MetS was 25.05% (NCEP ATP III). Mean values of BMI, waist circumference, blood pressure (SBP, DBP), plasma level of fasting glucose, triglyceride, HDL, cholesterol, insulin and VEGF were significantly higher in MetS group compared to non-MetS group. ET-1 levels were significantly increased in MetS subjects (MetS vs. non-MetS:4.32±0.24 vs. 3.41±0.18, p=0.003). We also found that mean plasma levels of ET-1 increased in direct proportion to levels of MetS components. Multiple regression analysis was utilized to assess the independent effects of various clinical parameters on levels of circulatory ET-1. Multiple regression analysis of ET-1, including data on BMI, waist circumference, systolic blood pressure, diastolic blood pressure, LDL-cholesterol, total cholesterol, non-HDL cholesterol, fasting insulin, fasting blood glucose, and HOMA-IR, after adjustment for age was performed. The results showed that only systolic blood pressure, but not the other variables, was significantly associated with ET-1. Stepwise multiple regression analysis revealed that only systolic blood pressure was an independent determinant of plasma ET-1 levels. Conclusions: We here demonstrate for the first time that in Bangladeshi rural women, plasma level of ET-1 is related to MetS and its components, suggesting a possible role of ET-1 as a surrogate biomarker for the disease and its complications. This is the first study assessing ET-1 in metabolic syndrome subjects from a South Asian country.

Nipah Virus: Research Review of infection Features and Recurrent Outbreaks

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Abstract

Nipah virus is an emerging threat to the human life with history of outbreaks chiefly in Bangladesh, India and Malaysia. For causing severe illness and a high fatality rate, it has been classified internationally as a biosecurity level (BSL) 4 agents. An approach was taken to review the studies of the Nipah Virus and its epidemiological research reports from 1999 to 2012 to assemble its infection features found chiefly in South-Asia & South-east Asia. From the year 1998 to 2012, 15 outbreaks were reported with total 524 cases where average fatality rate was 56%, sometimes up to 100%. After the initial occurrence in Malaysia, Bangladesh had 12 outbreaks and West Bengal of India had 2 outbreaks. Fruit bats are natural *reservoir hosts*. Pigs act as an amplifying host in Malaysia but Human can be infected by the bats directly in south Asia. Nipah Virus enters through the olfactory nerve to CNS with a simultaneous attack in respiratory system. Infection has features like high fever, altered mental status with a prolonged incubation period in Bangladesh and short incubation period in Malaysia. Many Diagnostic procedures are available but there are no approved drugs or treatment. Also there is no vaccine licensed for human use. A recombinant measles virus (rMV) vaccine expressing NiV envelope glycoproteins is proposed by some researchers of Japan but that is still under trial.

MeduScope The Next Generation of Health System

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Abstract

MeduScope.com is a social hub for Doctors, Future Doctors (Medical students) and Patients which aims to make an intra-triangular relationship among them by sharing knowledge. It is an online based voluntary organization aiming to create a better medical atmosphere for the people of Bangladesh using the power of Information, Communication, Innovation, Activism and Technology. It is creating Medical Educational Scope for the mass people of Bangladesh by connecting them with their health provider in an easiest & time consuming way. Our mission is to Create three different communities of Doctors, Future doctors (Medical students), e- Patients; Develop an e-Connection between Doctors, Future doctors (Medical students), e-Patent Community; Create a relationship between doctor-patient providing needed information; Store patients medical database and aware patient about their health conditions; Information about medical institute , diagnostic center, hospital, blood bank, Ambulance service; Provide direct access to quality health services & solve health related problem online; Make Video tutorial of Study components, Common disease managements, First aid procedures; Gather and spread medical e-books, medical apps; Provide News of medical jobs for Professionals, Arrange part-time jobs for students and scholarship for future doctors; Give a platform to teachers to start their own medical online course and training; Provide information about Seminar, workshop and other events; Provide an online stage to Buy and sell medical books, bones & equipment; Exposing barriers to healthcare through data collection and testimonies. As Time is Money, Doctors can save their time by using online diagnosis & treatment, rearrange their patient appointment, share their research work and clinical experience, get their own medical blog & website, create online courses, manage their seminars and pharmaceuticals offers by sitting in front of their computer or smart phone anywhere the world. In this digital era, Future Doctors (medical students) do not have to learn only from books or medical classes. They can learn from online classes, study talk with professors (24 hours), medical software and application, original e-books in MEduScope with their smart phone. They also can sell their used books / bones and get part time online jobs to support their study cost. Patients will have a common platform to store their medical history and reports which they can share with doctors anywhere in the world for the betterment of their wellness. They will get all the information of doctors, medical institutes and pharmaceuticals in one place by sitting in their house. Our aim is to connect these three big communities and create a digital healthy Bangladesh.

Effect of short-term health promotion on complementary feeding practices on infant nutrition: a community-based randomized study in rural

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Abstract

Background: Complementary feeding practices are often recommended to improve the nutritional status of infants. However, lack of evidence based information on impact evaluation of such practices on childhood nutritional status. Objectives: The study aimed to assess the short-term effects of promotion of Complementary Feeding Index (CFI) messages on childhood nutrition especially among infants at weaning phase in rural Bangladesh. Methods: An educational intervention study was carried out following randomized cluster design between April 2011 and March 2013 in the Matlab sub-district. Equally distributed (intervention, and control arms) a total of 340 mother-newborn pairs were finally analyzed. Mother and family members in intervention arm received intensive counseling on complementary feeding practices through community health worker at 6, 8, 9,10 and 12 months of infant age. The control arm received existing services which were in that place. Result: Of them, 46% study children were male. A significantly (<0.05) higher proportion of mother had no formal education and had been suffering from under nutrition (BMI<18.5) among intervention compared to control group. At 6th month (baseline), the mean weight for infants in intervention and control arms were 7.05 kg (±0.95) and 6.94 kg (±0.90) respectively. The study infants gained similar patterns (<0.05) of weights at the end line survey (at 12th month of age). There were no significant changes in length between infants of two groups over the study period. The study however, found a significant number of infants wasted (13%) who were normal at baseline measurement. Conclusion: The short term nutritional intervention through health information in line with CFI had significant effect on wasting and further evaluations should be undertaken till 2nd years of child age to draw a final conclusion.

Drinking Water to Death: A Need for Global Attention

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Abstract

Climate change brings alarming health issues worldwide and more than ever to the coastal areas. Bangladesh is one of the countries expected to be affected worst by climate change and sea level rising. Health of coastal population of Bangladesh is in danger because of increasing salinity in the drinking water. Safe drinking water is scarce in the southwestern coastal area of Bangladesh. It is estimated that 884 million people do not have access to clean drinking water in the world. Increasing salinity of natural drinking water sources has been reported as one of the many problems that affect low-income countries, but one which has not been fully explored. This problem is exacerbated by rising sea-levels, due to climate change, and other causative factors, like changes in fresh water flow from rivers and increased shrimp farming along the coastal areas. Salinity intrusion is a challenging problem in the coastal areas over the globe. Increase of sea level, natural disaster like cyclone and storm surge the problem further. From recent data it has been estimated that approximately 53% of the coastal area are affected by the intrusion of saline water due to increased sea level and lack of upstream flow during dry seasons. Salinity in the surface water clearly differ seasonally and is higher in dry seasons when rainfall is low and river flow is not sufficient to send back the tidal flow of saline water. Increase salinity in the surface water is not a new phenomenon in Bangladesh. Since 1948, river salinity in the southern district of Potuakhali, Pirojpur, Barguna, Satkhira, Bagerhat and Khulna has risen by 45%. People living in coastal area of Bangladesh are heavily dependent on rivers, tube wells (groundwater) and ponds for household use and for drinking water. Approximately 20 million people living along the coast are affected by varying degree of salinity in drinking water collected from various source of water. water. Guideline for dietary salt intake has been established by WHO but no specific line mark has been set for the drinking water except the level of sodium that is unacceptable >0.2gm/L. The WHO and the FAO recommend consuming maximum 5 grams of salt per day with food and drinks. But people of this salinity-affected region take up to 16 grams of salt just by drinking water. Assuming 2L of water intake per day, estimated salt intake per day is 5-16gm/day in dry season and 1.2 gm/day during monsoon season. Relationship between high salt intake and several health problems are well established. Hypertension is one of the most common health hazards leading to different cardiovascular diseases like heart attack, stroke and many more in the particular area. Other human health problems include diarrhea, cholera, skin diseases etc. In a summary we are having some inevitable situation because of climate change and the poor people of the country are suffering from long time. This is high time to increase global diplomacy to tackle the situation. Natural control of upstream flow in the river should be ensured. We should stop further global warming by taking necessary steps and we can use desalination to get safe drinking water, a process which is already introduced in many developed country. Additional reservation of rain water should be utilized to save the life of our people.

Knowledge & practice of hand washing on rural people of Rangpur Division

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Abstract

Background: In Bangladesh a vast majority of the population lives in rural areas& many of them suffer from diseases which are preventable by hand washing. Hand washing is a simple habit that can help one healthy. We should learn the benefits of good hand hygiene, when to wash hands & how to clean them properly. So, the "Global Hand Washing Day "has been being celebrated on 15 October since 2008 to raise awareness about the benefit of hand washing with soap. Objective: To assess the knowledge & practice of hand washing. Methods: Community based cross sectional study was conducted on study population involved all residents aged 18 and above years. Data collection from 800 household was carried by face to face interview using pretested questionnaire. Results: About 80% respondents were educated. 96% of them had knowledge about disease that can be prevent by effective hand washing but only 80% of them use soap water to wash hand & 47% spent 2 minutes on lathering soap. Most of them did not know about "The Global Hand Washing DAY" that observed all over the world & none of them could not say the actual date. Conclusion: This assessment pointed out that knowledge & practice about hand washing of respondents were not very satisfactory among rural people. Cent percent of the population should be proper practiced about right way of hand washing. To let the every people know about the importance of hand washing, different program should be conducted on "The Global Hand washing Day."(15th October)

Key words: Knowledge, Practice, Hand wash, Rural People.

Assessment of oral health status among female garment industry workers

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Abstract

Background and Objective: Garment industry is one of the leading industries in Dhaka and many people work there. There is a lack of data on oral health status of garment industry workers in our country. Hence the present study has been undertaken to assess oral health status and plan suitable preventive and curative treatments for them under the health program of industry. Methods: This descriptive type of cross sectional study was conducted from July to November 2013. A sample of 270 Garment female workers was selected by purposive sampling. Data were collected by a questionnaire regarding the various aspect of oral hygiene, gum condition, infection, caries, use of medicine, consultation to dentist etc. Data were analyzed by descriptive statistics. Results: A total of 53 workers (19.63%) can only put signature and 183 (66.67%) workers attained only primary level education. Their working hours were high in relation to their income. Ninety percent respondents had various oral health problems and only 32% of the workers can evaluate their problem by others and thyself. Only 22% workers had an experience of visiting dentist and rest (78%) never visited dentist. Most of them took medicine form the nearest medicine shop to reduce their dental pain and others did nothing. About 61% of workers reported that they do not brush regularly and only 4% uses floss. Caries found in 43% and 48% worker had poor gingival condition. Their knowledge of oral health was poor. Conclusion: Health education program should be arranged regarding various health problems especially to improve personal hygiene and oral hygiene. Poor oral hygiene causes some systemic diseases now a days. Their effect on dental health includes notching of the enamel of tooth, sometimes dentine, gingivitis, periodontitis, stains, poor oral hygiene etc.

Key Word: Oral Health, Female, Garments Workers.

Sickness pattern and treatment seeking behavior in rural family in Bangladesh

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Abstract

Background: 80% 0f people in Bangladesh live in rural area. Due to scarcity of accessible and affordable health care services they are bound to live with their sickness which leads to increase morbidity and mortality. Poverty is the so Dr. Md. Saiful Alam cial determinants of health. Illiteracy, ignorance, culture and customs aggravates the situation specially the vulnerable group the mothers and children. With this background a rural community based cross sectional survey was conducted on 1665 households to find out present health status and treatment seeking behavior of rural poor. Method: The study were conducted in 20 villages in Kaharul Thana of Dinajpur district. Total respondents were 1665 families. Cluster sampling used for sample selection. A Questionnaire with open and close-ended question.used. Face to face interview with parents was conducted to collect data. Results: Illiteracy among female were 32% and Male 29%. In-terms of occupation, 78% female were house wife and 59% male were day laborer. 52% family were ultra-poor and poor.1211family had sick persons. 44% family seek medication from medicine shop,14%, from village doctor, 20% went to THC and Medical college hospital.65%delivery at home attended by TBA and SBA. Among 1068 women practicing contraception 39% usingOCP, 16%Injection,6% Implant, 8% Tubectomy. Only 5 persons had done vasectomy. Diseases found mainly skin disease, eye infection, malnutrition,peptic ulcer, bronchitis, dysentery, otitis media, anemia, filariasis, goiter, hydrocele, hernia, abscess, and uterine prolapse. Mothers,children and elderly were the worst sufferer Conclusion: To improve the health care situation in rural setting focus should be on infrastructure development and provision of qualified physician by both public and private sector. The medical colleges should come forward with allocation for rural health. It needs cooperation from NGOs and international organizations.

Keywords: Sickness, Vulnerable, Rural community.

Aging situation in Bangladesh: Health Sector Perspective

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Abstract

According to UN the total number of elderly people in the world will reach at 1200 million by the year 2025, which indicates that by this time15% of the total populations will reach 60 years or more. UN also stated that the world is experiencing an age-quake. Every month, one million people reach 60 years of age. By the year 2030, several industrial countries will have one third of their population over 60 years of age. The number of elderly people is increasing rapidly in the developed countries but it is also increasing in the developing countries like Bangladesh by leaps and bounds. More than half of the world's older population lives in developing countries. Bangladesh has achieved a standard in child health care but the field of geriatric health is still untouched. Now a day, medical scientists are expecting that a person can live up to 200-300 years. But focusing only on increasing longevity of life without taking relevant steps for better living of elderly generation in this fast changing technology based world will leave them behind as a worthless part of the society. On the other hand strategies like allocating adequate resource in geriatric health, involving elderly population in policy making program, social engagement can turn this population into a resource from a burden. 20th century was the last year of youth, 21st is the first of population maturity. It is high time that Bangladesh starts focusing on geriatric health sector and be strategically ready to face this "age-quake" challenge.

Key Words: Aging, Elderly, Health Sector, Bangladesh.

Awareness, Perception and Factors Affecting Utilization of Cervical Cancer Screening Services Among Women in Rupgonj, Narayangonj: A Qualitative Study

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Abstract

Background: Over the years awareness and uptake of cervical cancer screening services has remained poor in developing countries. Problems associated with cervical cancer incidence include late reporting, ignorance and cultural issues relating to cervical cancer screening. This study sought to explore the awareness, perception and utilization of cervical cancer screening among women in Rupgonj, Narayangonj as well as factors that influence utilization. Method: This is a qualitative study that utilized Eight Focus Group Discussions to collect information from women in selected health facilities in Rupgonj, Narayangonj. The 82 participants were purposely recruited from women attending in primary health care facilities. The focus group discussions were tape recorded and transcribed verbatim. The transcripts were analyzed into themes. Findings: The study provided qualitative information on the awareness, perception of the utilization of cervical cancer screening services among women in Rupgonj. Participants were all married women (100%), mean age =26.6 ± 3.5 years, had primary education (39%).They are sexually active having initiated sexual activity at a young age (mean age 16.3 ± 2.5 years). There was a high prevalence of the major risk factors for cervical cancer. These included initiation of coitus before 19 years (65.5%), and male partner with other female partners (8.5%). Also, a previous history of sexually transmitted diseases (58.5%) . Their overall knowledge of cervical cancer was low and only 22 women (26.8%) had any knowledge about initial screening (VIA or Pap's smear) services. Only 16 (19.5%) of these women had a VIA test performed on them. Also, there was poor appreciation of personal risk of cervical cancer and safer sex practices. The respondents reported not being aware of cervical cancer and were not utilizing the services. Though they did not know what cervical cancer screening entailed or the screening methods, they still believed that it is important since like for other diseases will help in early detection and treatment. The participants were eager to get more information from community health care providers on cervical cancer about cervical cancer screening. The major factors identified by the women that influence screening utilization were ignorance, Illiteracy, belief in not being at risk, having many contending issues, nonchalant attitude to their health, financial constraint and fear of having a positive result. Conclusion: There is an urgent need for more enlightenment about cervical cancer especially by community health workers. Also, information about cervical cancer screening services should be disseminate by the community health care providers and made available at very affordable cost so that women can easily access the services in order to reduce incidence of invasive cancer.

Role of Hamdard in Health Care System of Bangladesh

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Abstract

HAM means FRIEND, DARD means PAIN. HAMDARD means FRIEND of PAIN or who share the pain of others. Hamdard is an institution of Eastern System of Medicine dedicated for health care, education and a movement for the promotion of morality, science and culture. Hamdard benefits from the accumulated knowledge of centuries, blends it with the latest scientific technology and converts it into efficacious herbal medicine to cure the suffering humanity all over the world. The Hamdard story had begun in 1906, when Hakim Hafiz Abdul Majeed, had setup a small drug shop in Delhi. What started as a health service, later diversified into an education and a socio-cultural movement in the shape of a charity. Hamdard renders health service to mankind by giving free prescription support to millions of patients all over the world. Hamdard promotes science, education, health & culture through its educational institutions, and conducting research on therapeutics and drug of holistic medicine. The development of Eastern System of Medicine during the entire 21th century owes its vitality to the three towering figures in the persons of Hakeem Abdul Hameed, Hakim Mohd Said & Dr. Hakim Md. Yousuf Harun Bhuiyan who achieved worldwide renown as founders and patrons of the Hamdard. Hamdard published first Pharmacopoeia in the field of Eastern Medicine titled as 'Hamdard Pharmacopoeia of Eastern Medicine'. Hamdard has given birth to an entirely new discipline in medicine 'Medical Elementology', which investigates the role of elements in the human body on health and diseases. Hamdard Bangladesh has introduced time honored presentation of herbal medicine like capsule, tablet, sachet, syrup, ointment, elixir etc. Hamdard has established about 250 medical centers all over the country. After a century, Hamdard stands as a model of substantial successes and a high quality accomplishment. Hamdard has an unwavering belief that man's quest for knowledge would one day, result in man's conquest of nature promising to the mankind a happier world and a society, free of disease, infirmity, superstition, illiteracy and poverty. Hamdard is dedicated to serve the humanity, cure the ills, spread the light of knowledge and bring the blessings of the scientific research to help improve living and eliminate the sufferings of the mankind.

Key Words: Hamdard serve in public health 1906; Medical elementology; Hamdard University; 250 health centre throughout the Bangladesh.

Role of meaningful e-learning in development of primary health care in Bangladesh

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Abstract

Introduction: E-Learning can be viewed as an innovative approach for delivering well-designed, learner-centered, interactive and facilitated learning environment to anyone, anyplace, anytime. On the other hand, primary health care is an approach to health beyond the traditional health care system that focuses on health equity producing social policy. Methodology: This study was made by reviewing 15 articles and journal from April 2014 to May 2014. Result: Bangladesh has achieved great success in Health sector. Bangladesh has been awarded for achieving success on MDG-4 goal and is on the way to achieve remaining goals. In the vision of 'Digital Bangladesh' government provided online facilities up to upazilla level. These facilities can be used for developing primary health care and can be achieved by meaningful e-learning. Meaningful e-learning system is more likely to be fruitful to learners when it is easily accessible, clearly organized, well written, authoritatively presented, learner centered, affordable, efficient, flexible, and has a facilitated learning environment. When learners enjoy all available support services provided in the course without any interruptions, it makes support services staff happy as they strive to provide easy-to-use, reliable services. If we make specific plan to deliver online health facilities, aware people about different health problems and give them knowledge about where to seek proper health care, health care delivery will be more efficient. As a developing country we have short of resources and manpower. E-learning program can reduce the time, staff and financial commitments of lecture-based training and promote active user involvement with the course material. Conclusion: Meaningful e-learning can go a long way to teach people about good health behavior practice and make them aware about their health problems. We can save large amount of money and manpower in this way and can provide health care up to root level.

The Proportion of Congenital Anomalies among the Patients of Tertiary Level Hospitals of Dhaka City

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Abstract

Background: A congenital anomalies are characterized by structural deformities are termed "Congenital Anomalies" and involve defects in or damage to a developing fetus. Objective: To estimate the proportion of child born with congenital anomalies among the patients of tertiary level hospitals of Dhaka city. Methodology: A cross sectional study was conducted in Dhaka Medical College and Hospital and BSMMU to assess the proportion of congenital anomalies. In my study total 125 of respondents were participated, they were actually secondary respondent that means parents of the primary respondents. Purposive sampling method was used. Results: Majority of the child were male and 46.4% were female child with mean age of 4.8±2.1. 42.4% of the respondents were Muslim and 38.4% were Hindu, although some respondents from other religion were also present. Most of the respondent's education level was higher secondary, mainly service holder having average monthly family income of (10000-20000) tk. According to report 34.4% were having congenital heart disease, while 4% were suffering from goldenhar syndrome. 18.4% were suffering from Down syndrome, while 27.2% were suffering from different kind of cleft in their body parts. Some were deaf from birth. 3.2% having crouzone syndrome. Only 2.4% were suffering from spinal bifida. Rests 4% were suffering from other congenital anomalies. Among the patients who are suffering from different kind of congenital heart diseases, ventricular septal defect were found prominent type of congenital heart problem. 68% respondent had more calorie intake during their pregnancy. No significant STD infectious was found. 45.6% had a family history of congenital anomalies. Conclusion: A congenital disorder may be the result of genetic abnormalities, the intrauterine environment, errors of morphogenesis, infection, or a chromosomal abnormality. The outcome of the disorder will depend on complex interactions between the pre-natal deficit and the post-natal environment. Congenital disorders vary widely in causation and abnormalities. But reducing the risk factors can create a significant impact.

Keywords: Congenital Diseases, Pregnancy, Environmental and Nutritional Factors.

Strategic recommendations for transformative health professionals' education towards health equity

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Abstract

Introduction: Evidence based recommendations for health professionals' education transformation to achieve health equity was vividly pictured in the *Prince Mahidol Award Conference,* a leading global conference on health policy that was convened at Thailand in January, 2014 with the theme this year *"Transformative Learning for Health Equity."* Methodology: This article was prepared by reviewing the session notes, keynote papers, conference report and WHO Guideline for transforming health professionals' education after the conference in 2014. Discussion: In 2006 WHO World Health Report addressed the global crisis of unequal distribution and incompetent human resource for health. These created some global momentum like GHWA, ANHER, AAAH advocating for sustainable policy on transformative education of health professionals. Towards the journey for health equity, reform in both health system and education is essential. This reform is based on several changing contexts of health system. For example, demographic, epidemiologic and economic transitions, labor market dynamics, shift of disease burden, health expenditure etc. There are some cross cutting issues like disproportion between generalists and specialists, integrating social accountability in curricula, improving measurement of health workforces' performance, creating inspirational role model educators which are influencing reform in both systems. Educational reform can be explained in instructional and institutional dimension. Instructional redesign principles are based on competency based learning, inter-professional learning, experiential learning, balanced online-onsite learning and flexible designs of curriculum. Simultaneously institutional reform includes faculty development, strengthening teaching capacity, management capacities, public-private collaboration, quality assurance, accreditation and regulation for improving education quality. WHO guideline for health professionals' education also suggests to draw attention on these dimensions for policy development. Conclusion: A global consensus has been accumulated that transformative health professionals' education should focus on global changing context of health system and requires institutional and instructional reform for achieving goals of health equity.

Psychology of a Medical Student: Medical Students Syndrome

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Abstract

Medical Students Syndrome is a condition frequently reported in medical students, which may be otherwise demonstrated as a kind of hypochondriasis, in which the students perceive themselves or others to be experiencing the symptoms of the disease(s) they are studying. It was first reported by George Lincoln Walton in 1908, whereas the first descriptions appeared in 1960. In 1960's the prevalence was 80%among the medical students which reduced to 70% by 1998 and again gave a peak in 2004 and started rising in this decade from 78.8% in 2004, 80% in 2010, in all over the world. The syndrome is also observed in the general graduation students but is 30% more prevalent among the medical students. It is high prevalent among medical students due to the self-treatment of diseases and trying the examinations and treatment procedures first on fellow mates and on themselves. Improve in lifestyle, adequate sleep and visiting physicians in case of signs and symptoms of diseases reduce the risk of developing MSS reduces to 50% and only psychotherapy can be the treatment of the syndrome.

Key words: Psychology, Medical Students, Syndrome.

Snakes in the north-eastern part of Bangladesh: A species specific identification

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Abstract

Background: Snake bite is considered as a neglected, hence terrifying medical emergency in rural Bangladesh as most of the bites encountered in rural areas. Recently it has been linked with occupational and environmental hazard faced by farmers and dwellers of tropical and sub tropical country like Bangladesh. In spite of being a medical emergency and an important cause of mortality and morbidity, snake bite is a neglected health problem in our country made worse by scarcity of Anti snake venom (AVS) even in tertiary hospitals. Though in most cases snake is found to be non-poisonous, poisonous snakes are classified into a) Elapids (secreting neurotoxic venom), b) Vipers (vasculotoxic) and c) Sea snakes (myotoxic). Identification of poisonous and non-poisonous bites and specifically, the type of snakes mostly direct the emergency preparedness, assessment, need for investigation and prompt management with AVS. Objectives: The primary objective was to identify and report the venomous snake species that are available in north-eastern part of Bangladesh. Site & location of bite, lag period between bite & hospitalization and outcome of treatment were also analyzed as secondary objectives. Methods: It was an observational study done from July 2010 to July 2012 in the department of medicine, Sylhet M.A.G. Osmani medical college hospital. We received total 36 snake bite cases (both venomous and non-venomous) but only those cases where offending snake were brought to hospital (dead or alive) were enrolled. Zoologist's opinion was taken to identify the species. Only six (6) patients fulfilled the criteria and were finally enrolled. Data was presented as proportion and percentage. Results: Mean age of cases was 28 years with 83.33% male and 16.67% female. Three (50%) snakes were krait; two *Bungarus fasciatus* (banded krait) & one *Bungarus caeruleus* (common krait); two were green pit viper (*Trimeresurus albolabris)* and one was *Naja naja* (king cobra). Left foot was affected in 66.67% cases followed by right foot (33.33%). The highest lag period between bite and hospitalization was 540 minutes and lowest 90 minutes with an average of 282 minutes. The most common location was narrow village road (50%) followed by forest (33.33%) and outdoor kitchen (16.67%). Four snakes were brought dead and 2 alive. Three patients received traditional treatment in the form of herbal product before admission. Duration of hospital stay was 2-5 days with successful outcome in all. Conclusion: The estimated incidence density of snake bite is around 623.4/ 100000 person years in Bangladesh. So far specific species were identified and reported from southern (Khulna and Barisal division) and eastern (Chittagong division) part of our country but not from the north eastern (Sylhet division) part. Species identification is important to get an idea on local distribution of snakes in Bangladesh.

Key words: Snake, Snake bite, Sylhet, Bangladesh.

Gestational diabetes mellitus: Disease status, treatment modalities and consequences

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Abstract

Background: Gestational diabetes mellitus (GDM) refers to any degree of glucose intolerance with onset or first recognition during pregnancy. It is increasing worldwide and is linked to several maternal and fetal complications. Objective: To find out disease status, treatment modalities and consequences of GDM patients attending a tertiary hospital of Dhaka city Methods: A descriptive cross sectional study was conducted on GDM patients attending a tertiary hospital of Dhaka city from January to July 2011. By purposive sampling from 109 GDM mothers data were collected regarding their demographic characteristics, status, treatment modalities and consequences. Data were analyzed by statistical software SPSS. Results: The mean age of mothers was 29.48 ± 4.89 and most of them (77.1%) >25 years old. Among them 74.3% had family history of diabetes and 16.5 % had history of GDM in previous pregnancy. GDM diagnosed at ≤20 weeks of gestation in 67.9% mothers and 75.2% had fasting blood sugar level >5.5 mmol/lit on diagnosis. Around 52.3% women delivered baby within 37 to 40 weeks of gestation, 42.2% delivered 33 to 36 weeks and 5.5 % before 33 weeks of gestation. Mean pregnancy weight gain was 6.8 ± 1.18 kg, with minimum and maximum weight gain 4kg and 10 kg respectively. Three categories of treatment observed, only diet restriction, only insulin therapy and both diet restriction and insulin therapy. Only diet restriction was 24.8%, 46.8 % only insulin therapy and 28.4 % GDM mothers received both diet restriction and insulin therapy. One way analysis of variance (ANOVA) showed significant difference of means (P=0.02) of birth weight of these three categories. Mean birth weight of babies born to mother who got only diet restriction were less (2.8 ± 0.53) than those mothers who got only insulin therapy (3.1 ± 0.47) and who were under both diet restriction and insulin therapy (2.9 ± 0.47). 23.9% GDM mothers had adverse consequences, 10.1 % had premature labour, 4.6% gestational hypertension and 3.7% pre-eclampsia. Adverse fetal consequence was 33.9%, 32.1% had neonatal jaundice and 1.8% had birth defect. Only 2 newborn (1.8%) out of 109 had birth weight >4 kg (macrosomia). Conclusion: GDM has serious impact on both mother and fetus. Antenatal screening for early detection and its subsequent follow up during gestational and post natal period is very important to prevent the consequences.

Key words: Gestational Diabetes Mellitus (GDM), Consequences.

Ebola virus disease: Where Bangladesh stands

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Abstract

A village school headmaster was the first indexed case of Ebola, diagnosed on 26th August, 1976, who contracted the disease near the border of the Central African Republic along the Ebola River. The first outbreak in Congo had a CFR of 88%,killing 280 of 318 cases. Since then, Ebola Virus Disease has taken as many as 3927lives, claiming 2917 in 2014 outbreak till 24th of September. Having a very short replication time of 8 hours, this ssRNA virus spreads very rapidly through body fluids of affected persons. Henceforth, nosocomial infections are very common. Zoonosis from African fruit bats and non-human primates can also occur. Bangladesh has issued an alert against the deadly Ebola virus for 3 months, a few days after the WHO declared the epidemic an international health emergency. Bangladeshi UN peacekeepers now deployed in Liberia and Sierra Leone were asked to stay in a restricted area. Medical teams are monitoring the international airports in Dhaka, Chittagong and Sylhet. But, as CDC predicts 1.4 millions of having contracted the disease by January,2015; and as possibly 75% Ebola cases are going unreported there is always a chance for Ebola to cross borders. Bangladesh has direct flights with the US, UK and other countries who have direct airway connection with the Ebola outbreak countries. As we are screening only people coming from the West African countries, there's every chance of Ebola getting into Bangladesh, given its long incubation period.

Ebola virus disease - A Review

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Abstract

Ebola virus disease (EVD) is a severe illness, with a case fatality rate of up to 90%. The current outbreak, in West Africa is the worst ever and affects Guinea, Sierra Leone, Liberia and Nigeria. In August 2014, WHO declared it a public health emergency of international concern. As of December 3rd, the total number of reported cases in West African countries is 17,111, with 6055 deaths, according to CDC. In the US, there have been 4 confirmed cases with only 1 death; whereas in Mali, 7 confirmed cases and 6 deaths. As of right now, there are no reported cases in South Asia. Fruit bats (Pteropodidae) are considered to be the most likely host of the Ebola virus. In the current outbreak, most cases have occurred due to human-to-human transmission via direct contact through broken skin or mucous membranes with the blood, or other bodily fluids of infected people. Infection can also occur through contact with contaminated objects. The incubation period is 2 to 21 days. Symptoms include sudden onset of fever, malaise, myalgia, headache and sore throat. This is followed by vomiting, diarrhoea, rash, impaired kidney and liver function, and occasionally both internal and external bleeding. The patients are only contagious once they show symptoms. Early diagnoses are confirmed through PCR. Currently there is no specific cure or vaccine against the disease. Treatment is mainly symptomatic, which includes providing I/V fluids, maintaining vitals and treating concurrent infections. Recovery from Ebola depends on good supportive care and the patient's immune response. Brincidofovir is a drug that has completed phase II trials. Prevention plays a vital role in controlling EVD. This includes maintaining personal hygiene and avoiding contact with infected patients (even after death) or contaminated objects for anyone travelling to an affected area. Upon returning they should be monitored for 21 days and seek immediate medical care if symptoms develop. Health-care providers at all levels should be briefed on appropriate preventive techniques, like, sanitation, sterilization and personal protective equipment (PPE). Measures in Bangladesh include a 20-bedded ward in Kurmitola General Hospital. There are medical teams formed at 20 landports, 3 airports and 2 seaports. People coming from infected countries are being followed for 21 days. There is also an ebola hotline which is active 24/7.

Determinants of smoking cessation among young university students

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Abstract

Background: In Bangladesh smoking attributable death is substantially increasing. Proper interventions like knowledge regarding smoking cessation methods may assist the young adults to refrain from smoking. This will help to reduce the wastage of their future productivity. The study aimed to identify the determinants of smoking cessation among young adults as their active smoking exposure is short and the latency to express any hazardous symptoms of smoking not been reached yet. Method: A cross sectional survey was conducted during January 2014 to June 2014 with students of four private Universities in Dhaka, Bangladesh. Students of 18-25 years irrespective of discipline and gender were recruited using snowball sampling technique. A structured questionnaire included information on socio-demographic variables, smoking behavior, intention to quit and Fagerstorm nicotine dependence scale. Results: Among 471 current smokers included in the study, 409 (87%) were male. More than half of the participants (54%) wished to refrain from smoking during the study. Nearly one third (32.3%) of the total population knew about any kind of smoking cessation methods. Almost half (49.3%) of the population was unaware of anti smoking laws of the country. The main reasons for intention to quit were health (42%), money (21%) and family (18%), and for relapse was addiction (25%). Using Fagerstorm Nicotine Dependence scale it was found that 31% of the total participants had low nicotine dependence, 34% had moderate dependence and 35% had high nicotine dependence. Lack of motivation, knowledge gap regarding smoking cessation methods, and smoking related disbeliefs were found to be the main determinants for smoking cessation among young adults. There was a significant association between knowledge regarding smoking cessation methods and intention to quit (p<0.05), and misconception regarding smoking and intention to quit. Conclusion: Determinants identified from this study will help the policymakers to design tobacco cessation programs targeted for young people.

Awareness and practice of family planning among women of reproductive age attending indoor and outdoor department of a selected medical college hospital

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Abstract

Background: Bangladesh is a developing country and in the late expanding stage of demographic cycle .Though Bangladesh has achieved commendable success in its population problem but it has the third largest population in south Asia. Objective: To explore the awareness and practice of family planning among women of reproductive age. Methods: This descriptive cross sectional study was conducted among the women of reproductive age attending indoor and outdoor department of Dhaka National Medical College. The study was conducted during September 2012 to October2013. Data was collected by face to face interview with semi structured questionnaire. Results: A total of 200 female of reproductive age were studied. The mean age was 27.52±5.2. About 132(66%) of the respondents had monthly family income of taka (5000-10,000) and 81(40.5%) had primary education. Of the total subjects 194(97%) were aware of contraception and 182(91%) used contraceptive methods and 18 (9%) did not use due to religious prohibition, fear about side effects, husband disapproval, need more child and lack of awareness. Of the contraceptive user 171(93.9%) used temporary methods and 11(6%) used permanent methods. Those who used temporary methods, majority 99(58%) used hormonal preparation followed by 50(29.2%) used barrier methods, 16(9.3%) used natural method and 6(3.5%) used IUDs. Of the permanent method user 9(81.8%) had tubectomy and 2(18.2%)had vasectomy. Conclusion: This study concludes that there is a knowledge/practice gap in the use of family planning methods. Though most of them use contraceptive methods but some social factors affect the practice. So effective couple counseling should be done.

Key words: Contraceptive, vasectomy, tubectomy.

Socio-demographic characteristics of suicidal mortality due to "Hanging: an experience on 74 Cases"

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Abstract

Background: Hanging is always suicidal unless otherwise proved. It is a form of violent asphyxial death. It produces painless death for the victims so that it is a widely practiced method of suicide. The rate of suicidal hanging cases is increasing day by day all around the world including Bangladesh. Objective: The objective of study is to find out socio-demographic characteristics of hanging, common ligature material used by victim and observed post-mortem findings. Methods: A retrospective cross sectional study was done in Dhaka Medical College Mortuary during the period from January 2009 to January 2010. During this period data were collected from 2233 cases of medicolegal autopsies. Sampling technique was purposive. Data were collected on socio-demographic characteristics, nature of ligature material and post mortem finding. Data were presented by a descriptive frequency. Results: A total of 2233 medicolegal autopsies were conducted during the period from January, 2009 to January, 2010 of which 74 (3.29%) were deaths due to hanging Out of 2233 cases maximum 34 (45.94%) deaths due to hanging were in group 21-30 years. Majority of the cases 46 (62.16%) were observed in females. Majority of victims had used Dupatta, 40 (54.05%) as a ligature material followed by nylon rope,18 (24.32%) and electric wire 5 (6.75%) for asphyxial death. Cyanosis of fingertips and nail beds 70 (94.59%) and dribbling salivary marks 22 (29.72%) were the commonest findings in cases of asphyxial death due to hanging. Conclusion: Suicidal hanging is observed in this study mostly within the young age group ranging from 21-30 yrs. Due to social and moral degradation there is disharmony in almost each and every relation of the individuals. So, awareness at the level of family and community should be raised to improve personal and social relation in every sphere. Also, the factors provoking an individual for an attempt to suicide should also be investigated for its prevention.

Key word: Suicide, Hanging, Asphyxia.

Prevalence of Metabolic Syndrome Components Among Early Age onset Acute Coronary Syndrome Patients in Bangladesh

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Abstract

Background: Metabolic Syndrome (MetS) is a major risk factor for coronary artery disease. The prevalence of metabolic syndrome and coronary artery disease is increasing in South Asian developing country like Bangladesh. A large number of young population with acute coronary syndrome have MetS. Objective: Aim of this study was to determine the prevalence of metabolic syndrome and the combination of components in patients with early age onset(age<50 years) acute coronary syndrome. Methods: This is a prospective study comprised 750 consecutive patients age <50 years hospitalized for acute coronary syndrome. The patients were categorized according to the criteria stated in the latest joint statement for the global definition of metabolic syndrome. Results: Among 750 acute coronary syndrome patients (561 were male, 197 female), 229 (31.11%) patients met the criteria of MetS. The mean age of study participant was 43.25 ± 0.27 years. MetS was more common in female than in male (45.71% VS 26.56%, $P < 0.001$). One component of MetS was found in 28.13%, two components in 29.87%, three components in 30.67% of acute coronary syndrome patients. The most highly two prevalent components of MetS in this study population were low HDL (51.8%) and high triglyceride level (44%). Conclusions: We conclude that prevalence of metabolic syndrome in patients with early age onset (Age <50 years) acute coronary syndrome is high in Bangladesh. Low HDL and high TG are the most common components of metabolic syndrome in our study. Strategies are needed for the early detection and treatment of cardio-metabolic risk factors to prevent coronary artery disease progression and prognosis.

Knowledge of health and hygiene issues of household waste collectors in a selected area of Dhaka, Bangladesh

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Abstract

Objective: The study has been conducted to assess the knowledge and perception of household waste collectors regarding their health and hygiene issues while collecting waste. Objectives were to assess their knowledge, to see whether any demographic variable affects their knowledge and to find the facilities they want to improve their lives. Methods: Structured interview schedule was prepared to assess the knowledge of waste collectors attending the households in Mirpur 11.5 area. 100 samples were selected purposively on the basis of inclusion and exclusion criteria. A Focus Group Discussion (FGD) was conducted to see the mind-set of the stake holders regarding the issue. Results: Eighty seven percent of the respondents have come from Bhola district. All respondents were male. The age range was 12 to 56 years. More than 50% were illiterate. Average monthly income is Tk 3700. Interestingly 43.43% respondents are satisfied with their situation. Dissatisfaction was blamed on low monthly income. All want to study. About 78% don't know about health and safety issues while out of those who know about health and safety issues, 22% know that they should wear gloves, masks and boots while collecting waste. All stated that they want to learn more about health and hygiene and will be available after 5 pm to do so. About 8.7% didn't receive any form of cooperation from anyone other than home owners whereas 91.3% didn't receive cooperation at all. Monthly family income ranges from Tk 5000 per month to Tk 26000 per month. The FGD showed that stakeholders are unaware about their role. Conclusions: The study concluded that waste-collectors have inadequate knowledge regarding health and hygiene. A possible reason may be absence of health and hygiene awareness program in the country. The diseases of these people due to poor health and hygiene practices affects the disease burden of Bangladesh.

Awareness, Perception and Factors Affecting Utilization of Cervical Cancer Screening Services Among Women in Rupgonj, Narayangonj: A Qualitative Study

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Abstract

Background Over the years awareness and uptake of cervical cancer screening services has remained poor in developing countries. Problems associated with cervical cancer incidence include late reporting, ignorance and cultural issues relating to cervical cancer screening. This study sought to explore the awareness, perception and utilization of cervical cancer screening among women in Rupgonj, Narayangonj as well as factors that influence utilization. Method This is a qualitative study that utilized Eight Focus Group Discussions to collect information from women in selected health facilities in Rupgonj, Narayangonj. The 82 participants were purposely recruited from women attending in primary health care facilities. The focus group discussions were tape recorded and transcribed verbatim. The transcripts were analyzed into themes. Findings The study provided qualitative information on the awareness, perception of the utilization of cervical cancer screening services among women in Rupgonj. Participants were all married women (100%), mean age =26.6±3.5 years, had primary education (39%). They are sexually active having initiated sexual activity at a young age (mean age 16.3±2.5 years). There was a high prevalence of major risk factors for cervical cancer. These included initiation of coitus before 19 years (65.5%), and male partner with other female partners (8.5%). Also, a previous history of sexually transmitted diseases (58.5%). Their overall knowledge of cervical cancer was low and only 22 women (26.8%) had any knowledge about initial screening (VIA or Pap's smear) services. Only 16 (19.5%) of these women had a VIA test performed on them. Also, there was poor appreciation of personal risk of cervical cancer and safer sex practices. The respondents reported not being aware of cervical cancer and were not utilizing the services. Though they did not know what cervical cancer screening entailed or the screening methods, they still believed that it is important since like for other diseases will help in early detection and treatment. The participants were eager to get more information from community health care providers on cervical cancer about cervical cancer screening. The major factors identified by the women that influence screening utilization were ignorance, Illiteracy, belief in not being at risk, having many contending issues, nonchalant attitude to their health, financial constraint and fear of having a positive result. Conclusion There is an urgent need for more enlightenment about cervical cancer especially by community health workers. Also, information about cervical cancer screening services should be disseminated by the community health care providers and made available at very affordable cost so that women can easily access the services in order to reduce incidence of invasive cancer.

Keywords: Awareness; Perception; Utilization; Cervical cancer screening; Women.

Oral presentations

Health Problems and Consequences among Waste Disposal Workers in Public and Private Hospitals

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Abstract

Background: Hospitals and health care facilities generates wastes and by products that are potentially dangerous to human health and contaminate the environment. Waste disposal workers do not have general awareness of the hazard in their jobs and are at risk of having health. Objectives: The objective is to ascertain the relationship between background (sex, age, education, living condition and social class) and the hazards of hospital waste disposal workers and the health problems they are exposed at work site. This study aimed at the assessment of the risk perceptions towards waste in three renowned Medical College and Hospitals in Dhaka City. Methods: A cross sectional survey was conducted from January to May 2013. A 37-item self-administered questionnaire was employed to 135 waste disposal workers of two public and one private medical college hospitals. Sampling technique was convenient. Data were analyzed using SPSS version 16. Results: The participants in the survey were in majority , male (57%), from age group between 41 and 50 (34.1%), able to put sign and had attended primary schools (62.2%), and living in pacca houses (50.4%) and earning between Tk. 8,000 and 10,000 monthly (50%). Common health problems registered amongst the disposal workers were, respiratory problems (42%), gastrointestinal (63.1%), skin (51.8%) and the musculo-skeletal problems like joint pain (63.4%). Majority of them had experienced injuries (66.7%) like, sharp cutting (31.1%), fracture (12.6%), fall (8.9%), piercing injury (8.1%) and internal injury (2.2%). Although a considerable number of the subjects had the awareness of the possible hazards due to exposure, but only (58.5%) of them used personal protective equipments (PPE) and 17.8% of them used irregularly. Majority (87.5%) of them complained that authority did not supply the PPE and 9.4% of them felt that they do not need any protection. Conclusion: Healthcare facilities generate a variety of wastes that are mainly disposed or handled manually by waste disposal workers. The survey results indicate the vulnerability of the disposal workers to various diseases and health problems due to the exposure to harmful hospital and healthcare wastes.
Key words: Health problems, Waste disposal, Hospital

Effects of dokudami *(Houttuynia cordata)* on IL-8 expression in human gingival epithelial cells stimulated by *Aggragatibacter actinomycetemcomitans*

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Abstract

Aims: Periodontitis is an inflammatory condition caused by bacterial colonization in the gingival sulcus. *Aggragatibacter actinomycetemcomitans* is a facultative gram-negative anaerobic coccobacillus and a causative organism in the early stage of periodontitis. Dokudami*(Houttuynia cordata)* is one of the Japanese traditional medicine, kampo medicine. It has been reported that dokudami has anti-inflammatory effect in various tissues. Therefore, we hypothesize that dokudami is a candidate preventive medicine for periodontal disease. Objective: The objective of this study was to investigate the effect of dokudami on the expression of interleukin-8(IL-8) in human gingival epithelial cells(HGEC) stimulated by *A. atinomycetemcomitans.* Methods: HGEC were obtained from healthy gingival tissue. After pretreatment with dokudami for 30 min, HGEC were stimulated with *A. actinomycetemcomitans* for 12 hour. After isolation of total RNA, real-time PCR was performed to examine the IL-8 mRNA expression. Results: *A. actinomycetemcomitans* induced IL-8 mRNA expression in HGEC. However, dokudami pretreatment inhibited *A. actinomycetemcomitans*-induced increase on IL-8 mRNA expression in HGEC. This results imply that dokudami regulate the inflammatory process of periodontal disease.
Key words: Dokudami, IL-8, *A. actinomycetemcomitans.*

Promotion of better complimentary feeding practices: Results from a randomized control trial in rural Bangladesh

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Abstract

Background & Objectives: Infant-feeding practices and nutritional status among-infant is interrelated. Incidence of malnutrition sharply rises after 6 months of exclusive breast feeding (EBF) in most of the developing countries which coincide with the complimentary feeding (CF) period and acquired deficits are hard to reverse during childhood. Appropriate CF practices would result in a 6% reduction in under-five mortality. But optimal CF practices are still a challenge for the developing countries including Bangladesh. Objective: To evaluate the effects of a randomized control trial on complimentary feeding practices in a rural area of Bangladesh. Method: We conducted a randomized control trial of an educational intervention in Matlab, Bangladesh where ICDDRB provides MNCH-FP services in four blocks since late 1977. Two blocks were randomly assigned to the intervention group and the rest to the control group. One eighty mother-infant pairs were enrolled as infants aged 6 from each group. The mother and the family members of the intervention group received intensive counselling by community health workers at 6, 8,9,10 and 12 months of infant's age. Information on infant feeding practices and maternal characteristics were collected from both groups. Continued breast feeding, bottle feeding, initiation of CF, food frequency, meal frequency and food diversity were considered in calculation of CFI (complementary feeding index). Harmful, positive and in between practices were scored 0, 2, and 1 respectively. Descriptive statistics and logistic regressions were used to examine the effects of the counselling. Result: In the intervention 68% of the mothers scored 17 or more (better) compared 32% in the control group (p<0.001). Other factors associated with better CFI for intervention group were higher frequency of counselling (OR: 14.0; 9.0-22.8), Hindus and other religion (OR: 4.3; 2.5-7.5), and maternal education 5 years or more (OR: 3.5; CI:1.8-7.0). Whereas in comparison area no pattern of association was observed with better CFI. Conclusion: The counselling promotes appropriate CF practices. Covariates of appropriate CF practices should be considered while designing IYCF intervention in Bangladesh. Significance for the selected field-building dimension: The computed CFI provides opportunity for comprehensive evaluation of a nutrition programme.

Key Words: Complimentary feeding, Rural Bangladesh.

Early detection of oral precancerous lesion and early cancers – reduce suffering of victims and society

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Abstract

Background and Objective: Cancers of oral cavity are those cancers occurring within the oral mucosa including tongue. They come in many form and mostly by malignant transformation of pre-existing condition such as leukoplakia, lichen planus, erythroplakia, oral ulcers and submucous fibrosis. Most of the time victims remain unaware of the lesions until they produce some symptom. This survey is designed to assess malignant transformation in pre-existing oral lesions. Methods: A total of 128 victims of oral cancers were involved. History, preset questionnaires and clinical examination were performed. These victims with oral cancers were attending Delta Medical College Maxillofacial Dept. (OPD) during 2012-2014. Results: Among 128 surveyed patients 58 were male and 70 female. About 61.72% patients accounted for pre-existing ulcers followed by 26.56% exophytic lesions, submucous fibrosis 3.9% and white lesions involved 2.34% who developed malignancy. Conclusion: Bangladeshi population suffer from cancer of oral cavity in high number with higher death rate. Five years survival rate has been very poor due to lack of proper diagnosis, late attendance at clinicians and delay in treatment. Predominance of precancerous lesions in malignant transformation makes it very important to build awareness in population and clinician alike to detect early cancers and quick medical care. Proper steps to build awareness in quick recognition, referral to specialists for treatment should bring down unfortunate situations, make opportunities for early treatment of oral cancers and increase life span.

Key words: oral cancer, oral cavity, early detection.

Intimate partner violence and risk of HIV/STD infection among the sexual 3minorities (LGBT) of Dhaka City

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Abstract

Background: Intimate partner violence (IPV) and risk of HIV/AIDS are the devastating and sometimes deadly problem facing lesbian, gay, bisexual, transgender (LGBT) communities. The vulnerability of lesbians and other sexual minority group to HIV infection is a complicated public health issue that is perplexing to some and ignored by many. Methods: In this cross sectional study a total of 110 sexually minor people participated, who were inquired to sexual violence and difficulties negotiating safer sex with their abusive partners and their risk for HIV/STD infection. They were selected through snow ball technique of non-probability sampling method. This study used data collected from different community-based organization that provides counseling for LGBT victims of HIV/STD infection and intimate partner violence (IPV). Results: Among all participants 56.4% reported that they felt difficulty with their partner while asking for safer sex or use of condom. A large percentage of participants (52.7%) were forced to have sex with their partner, 48.2% were abused (verbal-54.7%, physical-45.3%) by their partner as a direct consequence of asking their partner to use safer sex protection. Most of the sexual minorities that is 84.5% were engaged in abusive anal sex. Nearly all of the lesbian minorities used to enjoy penetrative sex by inserting different solid objects in their vagina. 52.7 % had a history of childhood sexual abuse. Although a large portion of the sexual minorities has a fairly good knowledge about HIV/STD infection, they don't practice it regularly in their real life. That is why in spite of having good knowledge about HIV/STD infection 34.5% participants previously infected by different STD infection for one or more time. Age, education level, income, Occupation and household condition of the sexual minorities have shown to have a strong association with their knowledge about HIV and STD infection. According to logit model, education level, income, and occupation of sexual minority people has a positive impact on their knowledge level about HIV/STD infection. A large percentage (57.3) of participants was suffering from depression due to discrimination from society and family. Conclusion: Experiences of violence and victimization are frequent for LGBT individuals, and have long-lasting effects on the individual and the community. More and more research should be conducted to have detailed knowledge about this issue.

Key words: Intimate, violence, sexual minority, HIV, STDs.

Maternal mortality and maternal care an experience and achievement of gonoshasthaya kendra (gk), rural bangladesh 2005-2013

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Abstract

An estimated 525,000 women, from developing countries including Bangladesh, continue to die each year from maternal causes (World Bank, 2003). In contrast, progress in reducing levels of maternal mortality, making pregnancy and childbearing safer for women, despite being a central element of the Millennium Development Goals (MDGs), has been much slower. GK has been working to achieve this goal since 1972, succeeded to reduce maternal mortality and better health services. The objective of this paper is to examine the success rate with facts of reducing maternal mortality in GK areas. GK has increased its coverage for more than 1.2 million rural populations with the support of 29 PHC centers and 5 referral hospitals in 647 villages across the country. This paper describes maternal mortality in rural Bangladesh, using registration data of maternal mortality from 19 GK PHC supported with 10 sub-center areas for the period of 2005-2013. Maternal deaths are being recorded and reported every month by trained health workers, known as Paramedics. After registration of pregnant women paramedics conducted follow up services with antenatal and post natal care. The study conducted by analyzing the panel data from 14th April, 2005 to 13th April, 2013. It reveals that out of 2,237,558 eligible female populations (15-49 Ages) only 1,451 died during the study period yielding an adult death rate 0.65 per 1000 female population. There were 115,305 live births during the period of 2005-2013 yielding a maternal mortality ratio 147 per 100,000 live births in the GK programme areas. This finding suggests that if women had access to adequate health care during pregnancy and child birth maternal mortality would be reduced.

Keywords: Gonoshasthaya Kendra, MDGs, maternal mortality.

A comparative study on traditional and concurrent field practice based teaching method among post-graduate public health students in Bangladesh

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Abstract

Background: Traditional teaching method (TTM) is usual practice in educational institutes. In recent years, concurrent field practice based teaching method (CFPTM) have started worldwide by which post-graduate public health students can adopt theoretical knowledge appropriately by performing simultaneously different activities in the field level. But comparative studies between these two methods are relatively rare particularly in developing countries. Objective: The present study was undertaken to test the hypothesis that CFPTM is a better method for post-graduate public health students as compared to the TTM. Methods: Under a comparative interventional design two groups of Master in Public Health students [n=40 for CFPTM and n=40 for TTM], were selected purposively from Daffodil International University of Dhaka, Bangladesh. Data were collected during pre- and post-intervention phase through self-administered method by using structured questionnaire and portfolio. A topic 'Planning, Implementation and Evaluation of Health Educational Intervention' had been chosen to conduct the intervention followed interactive lecture method with CFP by using module and practical sheet for the CFPTM group and only interactive lecture method for the TTM group. An overall and individual knowledge score was compiled and data were compared using appropriate tests between baseline and final values in each group as well as between the two groups at each time points. Results: Overall knowledge score (percentage) showed significant increase in both the CFPTM (Baseline vs Final, M±SD, 27±12 vs 83±8, p<0.001) and TTM (27±18 vs 40±17, p<0.001) groups. CFPTM showed a significantly higher knowledge score (p<0.001) as compared to TTM at the final time point. Analysis on individual components showed a result similar to the overall knowledge score. Conclusion: CFPTM seems to be superior to TTM as a short-term interventional tool for post-graduate teaching method in public health. The difference between the two methods on longer term intervention remains to be seen.

Key words: Traditional teaching method, Concurrent field practice, Post-graduate, Public health.

Study on metabolic syndrome (insulin resistance syndrome) among the teachers and staffs of a selected medical college hospital

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Abstract

Objective: The study was conducted to identify the presence of metabolic syndrome (Insulin resistance syndrome) among the teachers and staffs of East-West Medical College Hospital & Update Dental College Hospital. Methods: This cross sectional study was done on a total of 197 teachers and staffs of a selected medical and dental college. Respondents were selected by purposive sampling. Data were collected by a questionnaire that included their socio-demographic and biochemical findings. Analysis of data were done by statistical software SPSS. Data were presented by descriptive statistics. Results: Of 197 respondents 115 (58.4%) were male and the rest 82 (41.6%) were female. Regarding characteristics of metabolic syndrome among the respondents it was found that, fasting blood glucose (FBG) ≥ 5.6mm/L in 68.0%, waist circumference above normal level in 73.6%, triglyceride (TG) >150mg/dl in 45.2%, HDL cholesterol <40mg/dl in 77.2%, BP ≥130/85mm Hg in 41.6% of the respondents. Only 6 (3.0%) of the respondents had no characteristics for metabolic syndrome, 4 (2.0%) had altogether 6 characteristics, 22 (11.2%) had one, 32 (16.2%) had two, 46 (23.4%) had three, 53 (26.9%) had four and 34 (17.4%) had five characteristics of metabolic syndrome. On an average the female had higher HDL cholesterol level than the male (p<0.001). Regarding triglyceride (TG) it was observed that male had higher TG level than female (p<0.005). Statistically significant relation was seen between job and presence of Metabolic syndrome [χ^2=14.092, df=3 and p=0.003]. On the other hand no significant statistical relation was found between M.S and sex (χ^2=1.598, df =1, p=.206) and age [χ^2=6.130, df=4, p=0.190]. Among the total 197 respondents, 137 (69.5%) were with metabolic syndrome and the rest 60 (30.5%) did not have metabolic syndrome. Conclusion: About 70% of the respondents were found to have the factors of metabolic syndrome. These are related to their age, lifestyle, physical activity, diet etc. Life style modification intervention should be adopted with regular follow up by medical and biochemical profile.

Key Words: Metabolic syndrome, FBG, HDL, TG, BP, Waist circumference.

Anemia and its Determinants among Type 2 Diabetes Mellitus: Bangladesh Perspective

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Abstract

Introduction: Anemia is a common finding in patients with diabetes due to the presence of multiple factors like nutritional deficiencies, inflammation, concomitant autoimmune diseases, drugs and kidney diseases. Objectives: To investigate the prevalence, types and determinants of anemia in a group of Bangladeshi type 2 diabetic patients attending a tertiary hospital. Methods: Under a cross-sectional design a total number of 217 type 2 diabetic patients were purposively selected from the outpatient department of Bangladesh Institute of Research and Rehabilitation for Diabetes, Endocrine, and Metabolic Disorders. Socio-demographic and clinical data were obtained by interview and reviewing the guidebooks. All participants were screened for anemia with a full blood count using an auto-analyzer (Abbott, USA). Hemoglobin was determined by spectrophotometric method, creatinine by alkaline picrate method using a chemistry auto-analyzer and serum ferritin by ELISA method. Anemia was defined by World Health Organization criteria (<13 g/dl for men, and < 12g/dl for women). Results: The mean (SD) age of the participants was 53.04 (8.3) years. Anemia was detected in 128 (59%) participants but the proportion varies significantly between males (53.1%) and females (67.8%, $p=0.03$). Among the anemic diabetics 24.2% had microcytic hypochromic, 72.7% had normocytic normochromic and only 3.1% had macrocytic anemia. Serum creatinine level, on average was significantly higher in anemic participants (1.2 ± 0.4mg/dl) than in those without anemia (1.0 ± 0.1 mg/dl, $p=0.007$). Significant negative correlation of hemoglobin with serum creatinine ($p=0.04$) and age ($p=0.01$) was found. The daily dietary intake of protein and iron of anemic group was significantly lower than the non-anemic group ($p<0.05$). Serum creatinine level ($p=0.02$) and dietary intake of iron was positively ($p=0.05$) associated with anemia after adjusting the effects of other independent variables. Conclusion: A high proportion of Bangladeshi T2DM patients also suffer from anemia. Renal involvement seems to be an important determinant for anemia in T2DM.

Key Words: Anaemia, Determinants, Type -2 Diabetes, Bangladesh.

Way Forward to Reach Universal Health Coverage: Lessons from Gonoshasthaya Kendra (GK)

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Abstract

Universal Health Coverage is a global issue including Bangladesh for sustainable development. Both public and private sectors are committed to attaining the highest level efforts for better health, nutrition and sanitation for the people of Bangladesh. It is very difficult to get access specialized healthcare services in the rural areas of Bangladesh. GK is a pioneer organization in Bangladesh that provides innovative community health care services. The main objective of specialized health camps (SHC) is to provide affordable quality health care services to underprivileged community where the facilities are almost unavailable. Participatory approach adopted in implementing of SHC by involving local partner NGOs, local government, educational institutions and host community for effective health service delivery. It has integrated services for Medicine, Surgery, Cardiology, Gynecology and Obstetrics, Paediatrics, Orthopedics, Eye, ENT, Physiotherapy, Pharmacy and other support by setting up of field hospital in inaccessible outreach areas in Bangladesh. Secondary level health care services including major surgical operations also performed by the Professors and Consultants of Gonoshasthaya Community Based Medical College and Hospital (GCMCH) with full coverage of diagnostic facilities such as pathology, ECG, Ultrasonography and also blood transfusion. Total 59,424 patients were given to different types of health services by conducting 29 Health Camp during September 2011-December 2013. Out of 59,424 patients, 11322 were Medicine, 9201 Paediatrics, 8949 Ophthalmology, 6726 Gyanae and Obs, 6011 Pathology, 5840 ENT, 4536 Surgery, 4398 Cardiology, 2163 Physiotherapy, 1914 Ultrasonography, ECG 1161 and 6280 were other patients. Specialized health camp reduces their travel, hospital stay and out of pocket expenses. It is now a beacon of hope for the underprivileged people in rural areas. Further, can be important contributors to improve health status and to achieve Universal Health Coverage in Bangladesh.

Keywords: Gonoshasthaya Kendra, specialized health camp, universal health coverage.

Determinants of neck pain among office workers in Dhaka city

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Abstract

Background: Persisting neck pain is a common problem among office workers. With this momentum of our corporate culture we are facing some occupational hazards. Work related neck is a prominent problem and public health concern among these occupational hazards. Objective: To measure the proportion of neck pain among office workers in Dhaka city and to determine the association between neck pain and work related factors, socio demographic factors, psychological factors and lifestyle factors. Methods: A cross sectional study was done in 10 private offices throughout the Dhaka city from July 2013 to December 2013. A pretested questionnaire was used to collect the data and it was reviewed and analyzed by using SPSS. From the collected data, important findings are presented by frequencies, graphs and charts. Results: In this study 18.4% of the respondents had regular and 48.8% had occasional neck pain which altogether was near 70% in some extent. In addition 25.6% and 52.2% had regular and occasional shoulder pain respectively. Most of the respondents had muscle spasms (55.7%) due to neck pain and it was preventable. Rest of the respondents informed pain was related to abnormal sensation like burning, tingling, numbness and 4.03% could not distinguish nature of pain. Among neck pain sufferer, 13.42% had severe pain and most of the people informed moderate pain. Most importantly as an outcome of neck pain 23.5% of the respondents needed sick leave from office during last 6 months which added an economical loss to the society. To see the association of neck pain and socio demographic factors, lifestyle related factors, psychological factors, and work related factors, chi square test has been calculated. From the test results it reveals that neck pain might be associated with type of job (P= 0.009), sitting position (P=0.038), rest time during work (P=0.05), regular physical exercise (P=.0001), proper ventilation on the work place (p=0.035), and proper sleeping pattern (0.012). This study shows the burden of neck pain among office workers and risk factors of neck pain. From the findings of the study we can conclude that with growing industrialization occupational hazard like neck pain is also putting a remarkable impact on our society. To reduce this problem proper intervention plan should be implemented immediately.

Key words: Neck Pain, Determinants, Office Workers, Dhaka City.

Smoking Among Doctors: Do As I Say; Not As I Do!

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Abstract

According to Global Burden of Disease 2010, tobacco smoking is the 3rd ranked risk factor contributing to global DALYs after dietary risks and high blood pressure and attributes major risk for cardiovascular diseases, chronic respiratory diseases and cancer. Tobacco has been considered as a great man-made-catastrophe which leads to thousands of avoidable morbidity and mortality each year. Doctors play crucial roles in tobacco control initiatives e.g. role models to the patients, counselors to quit, researchers and lobbyist to policy makers. Surprisingly, there is high prevalence of smoking among the health professionals. Literatures suggest that prevalence of smoking among doctors varies from 25% to 42% in different countries. Moreover a significant proportion of male medical students are smokers (from 7% to 58%). A multicenter study found that 21% of public health physicians are smokers too. Most smoker physicians pointed out stress to be the main reason for smoking. This high prevalence of smoking among physicians leads to public skepticism "why they tell me to quit, when my physician is a smoker!" This also puts the doctors in a conflicting situation where they feel unconfident to practice smoking cessation techniques (5As i.e. Ask, Advise, Assess, Assist and Arrange) over their patients. Research shows many doctors skip to play active roles in helping their patients to quit smoking by saying that they do not want to interfere with patients' privacy, whereas it's their professional responsibility to do so! However, medical curriculum is deficient in tobacco control and there is paucity of professional training on tobacco counseling. We suggest anti-tobacco interventions targeting health professionals and policy recommendations to play active roles in patient counseling. Finally, doctors should utilize their respected position in the society for anti-smoking advice and follow "Preach What You Practice" rules.

Potential Association of Circulatory Level of Endothelin-1 and Hypertension in Rural Women in Bangladesh: Evidences from a Community Based Cross-sectional Study

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Abstract

Background: About 20% of adult populations are hypertensive in Bangladesh.Endothelin-1 (ET-1), a potential marker of endothelial dysfunction has been shown to be elevated in hypertensive subjects. No study yet has investigated the circulatory level of ET-1 and hypertension in a country from South Asia. As racial differences exist in plasma level of ET-1, more research addressing the association between ET-1 and hypertension among other races needs to be investigated. Objective: The present study was done to assess circulating levels of ET-1 in subjects with or without hypertension and further examined the association of ET-1 with clinical and metabolic parameters. Methods: A total of 2052 rural Bangladeshi women with mean age of 44.46years were studied using a cross-sectional survey. Multiple regressions were used to examine the association between circulatory ET-1 level and hypertension. Results: The prevalence of hypertensionwas30.3%.ET-1 levels were significantly higher in hypertensive (mean 3.08 pg/ml, SE ± 0.19) than non-hypertensive subjects (mean 2.01 pg/ml, SE ± 0.30) (p=<0.001). In univariate analysis after adjusting for age, ET-1 had significant positive associations with diastolic blood pressure (DBP) (p=0.002), systolic blood pressure (SBP) (p=<0.001), fasting blood glucose (p=0.002),mean arterial pressure (MAP) (p=0.001)and a negative significant association with high-density lipoprotein cholesterol (HDL) (p=0.030). Unlike blood pressures, other variables including, triglycerides, body mass index, and waist circumference were not associated with ET-1. In multiple linear regression analysis after adjusting for age, ET-1 had significant positive associations with fasting blood glucose (p=0.012) and mean arterial pressure (MAP) (p=0.05)only.When we performed multiple logistic regression analysis considering hypertension status as dependent variable, hypertensive had significant positive associations with age (p=0.015), waist circumference (p=<0.001), fasting blood glucose (p=0.009), triglyceride (p=0.001) and endothelin-1 (0.026).In tertile analysis, subjects with hypertension significantly increase as levels of ET-1 increase (P for trend =0.02). Conclusions: Thus the present study demonstrates that there is higher concentration of ET-1 among hypertensive subjects of apparently healthy population in Bangladeshi rural women who did not know they were hypertensive. The relation of ET-1 and hypertension needs further investigations to define the clinical utility and predictive value of serum ET-1 levels in hypertension for South Asian population.

Knowledge and attitude on mental illness among family members of psychiatric patients in national institute of mental health

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Abstract

Background: Mental disorders are widely recognized as a major contributor to the global burden of disease worldwide. A persistent negative attitude and social rejection of people with mental illness has prevailed throughout history in every social and religious culture. Methodology: This cross-sectional study was conducted to assess knowledge and attitude on mental illness among the family members of mental patients in National Institute of Mental health from January 2010 April 2010. Purposive sample of 100 respondents were taken and data was collected by a pretested semi-structured questionnaire. There were 19 questions on knowledge and 17 questions on attitude. The combined score for each of the questions were obtained and mean score on each questions were calculated. Result: Among the 100 participants, there were 51 female participants and 49 male participants. Among male respondents, 24% were husbands of female patients; rest was other relations. Among female respondents 19% were male patient's wives.34% of the respondent had secondary education. Among all (46%) were from rural community, 36% from urban community and 17% from peri – urban areas. Mean knowledge score was14.09 ± 2.065. Just below half (48%) had good level of knowledge, 39% had satisfactory level of knowledge, while 13% had /poor level of knowledge .Mean attitude score was 9.08 ± 2.604. About (18%) had good level of attitude and 39% had satisfactory level of attitude while 43% had /poor level of attitude. Among all (43%) had opinion that media plays a negative role in potraying mentally ill patients. Majority (78%) of them learnt about mental illness from friends or family members. Conclusion: Knowledge and attitude about mental illness is poor among the family members in the present study. There is the need for strong emphasis on health education to increase mental health literacy among general public and to increase awareness towards mental illness.

Key words: Mental patients, knowledge, attitude, family members, stigma.

Oral health and nutritional status of preschool children in a selected area of Dhaka city

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Abstract

Background: Oral health is related to diet in many ways. Food and nutrition affects the teeth during development and malnutrition and it may exacerbate periodontal and oral infectious diseases. However, the most significant effect of food and nutrition on teeth is the local action of diet in the mouth on the development of dental caries and enamel erosion. Dental erosion is increasing and is associated with dietary acids, a major source of which are soft drinks, candy, chocolate and chips. Objective: To assess oral health and nutritional status of preschool children as well as to find out the association between nutritional status and oral health status of the study subjects. Methods: A cross-sectional study was conducted conveniently among a total of 384 preschool children aged varied up to 2 to 5 years at IPHN (Institute of Public Health Nutrition). Data were collected by face-to-face interview. A pretested structured questionnaire was used and oral clinical examination was performed by following standard appropriate techniques and tools. Data were analyzed by the software SPSS version 16.0. Both univariate and bivariate analysis were performed. Results: The mean age of the respondents was 36±13 months. About 41%, 21% and 38% children age were varied from 24 to 35, 36 to 47 and 48 to 59 months respectively. Majority (97.7%) of children cleaned their teeth regularly. Plaque (47%), calculus (28%), gum bleeding (11%), gingivitis (14%), gum recession (3.9%) and history of previous gum bleeding (17.2%) were present as an oral problem among the children. Only 6.2% boys and 6.8% of girls had normal nutritional status whereas rest of the respondents were malnourished. Among the malnourished children more than half (54.7%) of the girls and almost one third (28.9%) of boys suffered from mild malnutrition. Mother's education (p=0.001), monthly family income (p=0.001), household members (p=0.001) were significantly associated with children's teeth condition. And also significant difference has been found between mother's education (p=0.001), monthly family income (p=0.005), household members (p=0.010) and children's gum bleeding. Conclusion: The study concludes that almost all the children clean their teeth regularly. Plaque, calculus, gum bleeding, gingivitis, gum recession and history of previous gum bleeding were the principle oral health problem among the study subjects. Most of the children have been suffered from mild to severe malnourishment whereas only few had good nutritional status. Mother's education, monthly family income, household members were the main predictors for children teeth condition.

Key Words: Oral health, Nutritional status, Preschool children.

Prevalence of chronic pesticide poisoning in Chittagong: Experience of 30 specialist physicians

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Abstract

Background: Rampant use of pesticides in food substances is a fact and by the advent of media campaign it is a burning issue now a days in Bangladesh. To observe the health consequences due to ingestion of insecticide treated food substances we had conducted the study. Methodology: It was a retrospective study. The study was conducted in September 2011. A pre-tested mixed type questionnaire was used for face to face interview of 30 specialist physicians. All were practicing in Chittagong for over 10 years. Collected data was managed manually. Conclusion was drawn after discussion with latest literature review. Results: All physicians (100%) answered that they managed many cases of acute poisoning due to suicidal, para-suicidal, homicidal and accidental causes. They also opined that chronic pesticide poisoning was extremely rare and they could not recall any case of chronic pesticide poisoning during last 05 years (recall period) from the date of interview. They also informed us about organization of orientation program on the subject and establishment of toxicology laboratory. Conclusion: A broad based prospective study is hereby advocated for measurement of disease burden among the people which may help national policy formulation on the subject.

Keywords: Prevalence, Chronic pesticide poisoning, Specialist Physician.

Clinico-epidemiological and immune status monitoring of HIV/AIDS patients of Bangladesh

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Abstract

Background: Bangladesh remains a low prevalence country for HIV/AIDS. The management of HIV/AIDS has been greatly transformed because of widespread availability of Anti-retroviral Therapy (ART). The present study was undertaken to determine the clinical presentations and to enumerate CD4 and CD8 T-lymphocyte among the HIV/AIDS patients of Bangladesh. Method: A cross-sectional study was carried out among 100 serologically confirmed HIV/AIDS patients divided into Therapy naïve (Group I; n=33), Symptomatic Therapy naïve (Group II; n=33) and ART receivers >1 year (Group III; n=34) at the Department of Virology of Bangabandhu Sheikh Mujib Medical University (BSMMU) between January and December of 2011. Patients were monitored during their clinical follow-ups and CD4 & CD8 T-lymphocyte were analyzed using Flow cytometer (BD FACS count, USA). Result: Of the 100 HIV/AIDS patients, 53 (53%) were males, 43 (43%) were females and 4 (4%) were trans-genders (TGs). The age of the study population ranged from 19 to 60 years (mean ±SD; 33.53±9.07 years) with predominant age group between 30-40 years. The most frequent mode of transmission was heterosexual route (84%). 76% of Group I and 91% of Group III were asymptomatic as per their clinical presentation. Among Group II, majority (58%) of individuals were presented with a combination of fever, diarrhoea, weight loss and oral infection. As per WHO Clinical staging's, 81% of Group I were belong to Stage 1, whereas, in Group II, 42% and 36% were belong to Stage 3 and Stage 4 respectively. CD4 and CD8 T-lymphocyte were 591±217 and 1266±433 cells/µl respectively in Group I. Among Group II, CD4 T-lymphocyte were found reduced significantly to 155±127 cell/µl (P<0.05) while CD8 T-lymphocyte were 758±564 cell/µl (P<0.05) when compared with Group I. Among Group III, CD4 and CD8 T-lymphocyte count were 588±228 and 1104±417 cells/µl respectively with no significant difference with Group I suggesting the intake of ART has prominently bring back the immune function to near normal. All the symptomatic therapy naïves with CD4 T-lymphocyte count <350 cells/µl were subsequently counselled for ART program. Conclusion: Timely initiation of ART and clinical/immune follow up ensures the success of the ongoing national scale up of the ART Program in Bangladesh.

Key words: HIV/AIDS, WHO staging, CD4/CD8 T-lymphocyte, Anti-retroviral Therapy (ART).

Myths about Contraceptive Use among Young Married Male of a Slum Area of Dhaka

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Abstract

Background: Superstitions and wrong ideas about the family planning methods have significant negative effects on contraceptive use. According to BDHS 2011, the use of male condom is only 6 percent amongst four most popular modern methods used by married couple. The reasons behind the lower acceptance of male methods are not explored in a significant way in recent past. This study was conducted to understand the perceptions regarding superstitions and misunderstandings related to male contraceptive methods among young married male in a slum area of Dhaka. Methods: A qualitative exploratory study was conducted from April to June, 2014 in Rayer Bazar slum area of Dhaka. Five focus group discussions (FGDs) were conducted in between 35 respondents aged 18-25 year. Thematic analysis was done with computer software ATLAS.ti. Results: Type of people with whom respondents discussed family planning had a significant effect on use of contraception. Physical, socio-cultural, sexual, psychological, and religions were common reasons which lead to misconceptions related to condoms use and vasectomy among the married youth. The notable myth amongst the respondents was that use of both condoms and vasectomy cause impotence in males. Additionally, condoms were thought to cause infections and headache in males, followed by fear of great failure chance. Some youth of the area thought that vasectomy is meant for diseased persons only. Conclusion: The findings suggest that the potential reasons behind low use of male contraceptive methods among youth were diverse myths and superstitions about male contraceptive methods. Family planning programs should focus on eliminating this misinformation, while strengthening factual information. There is provision of implementing some important policies like counseling of the couple through peers, religious leaders and well trained health care service providers to expel these myths and misconceptions from the minds of youth.

Keywords: Male contraceptives, Married youth, Myths, Superstitions, Slum area of Dhaka.

Knowledge of hypertension in rural community: are we aware and concerned?

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Abstract

Background: Epidemiological studies have clearly demonstrated that elevated blood pressure is a major cause of premature vascular disease leading to cardiovascular events, ischemic heart disease and peripheral vascular disease. As a public health point of view, for the effective control and prevention of hypertension and associated diseases it is very essential to know the knowledge and awareness related to hypertension of individual at the community level. Objective: To find out the level of awareness related to hypertension among the hypertensive patients of lower socioeconomic group people in rural area. Method: It was a cross sectional study carried out at Ashikathi and Kollanpur union of Chandpur district from January, 2014 to June, 2014. Study group consist of 146 adult hypertensive patients. Data were collected by face to face interview through a questionnaire and the blood pressure was measured and BMI was calculated by measuring height & weight of each respondent. Result: Among 146 hypertensive patients 65.1% were suffering from hypertension for > 1 year. 61.6% had their BMI within normal limit whereas only 5.5% were obese (BMI $\geq$ 30). Mean systolic and diastolic blood pressure were 134.25 ($\pm$ 15.58) and 84.08 ($\pm$ 8.91) respectively. 56.2% respondents had fair knowledge about the meaning of hypertension. Majority (37.7%) had no idea about the most vulnerable age group. Regarding the risk factor of hypertension 52.7% had fair knowledge. Majority had poor knowledge about the association of hypertension with smoking (65.1%), pregnancy (70.5%) and hereditary (70.5%) but most had fair knowledge about the association with stress (63.3%) and food habit (54.8%). Study findings reflected fair knowledge in 65.1% about signs and symptoms, 45.9% about complication, 47.3 about prognosis, 67.1 about their own blood pressure status and 53.4% about prevention. Conclusion: The awareness regarding hypertension is low among the individuals at community level, and intervention is necessary to impose control measures and to improve awareness.

Screening and visual outcome of premature babies at a tertiary private sub-specialty eye hospital in Dhaka city

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Abstract

Background: Retinopathy of prematurity (ROP) is the disorganized growth of retinal blood vessels in premature babies which may lead to simple refractive error to ultimate blindness. In Bangladesh it is one of the major causes of blindness among the premature babies in recent years after cataract and corneal cause. Because of improved survival of low birth weight and preterm babies' incidence of ROP consequences and blindness has increased. It is obvious that pediatricians and ophthalmologists are concerned about identification, prevention and timely treatment of ROP in these children. Objective: To determine the visual outcomes of premature babies at a private hospital in Dhaka city in different time and find out the recent outcome of screening of preterm children along with previous results. Methods: This was a cross sectional study on 113 premature babies attended at Bangladesh eye hospital from December 2013 to July 2014. We screened all preterm infants attending at OPD with birth weight less than 1500 gm or gestational age less than 32 weeks. Children who born between 32-37 weeks gestational age were examined if they had a course of instability (like sepsis, asphyxia or heart disease). Results: A total of 113 premature babies were included in the study. Out Of the 226 eyes 40 infants developed some form of ROP, 6 were end up as complete blind. Seven cases lost vision in one eye due to ROP. Total 28 eyes with ROP were classified as stage-3, 17 eyes as stage-2, 12 eyes as stage-5 (both), 5 eyes as stage-1 and 3 eyes as stage- 4. Total 29 eyes diagnosed with ROP received treatment that included laser therapy in 11 eyes, injection *BEVACIZUMAB* in 8 eyes and both laser & injection in 20 eyes. Of the 69 eyes with ROP that were followed up 24 eyes had refraction, 2 eyes were hypermetropic, 21 eyes were myopic and 1 eye was emmetropic. Among 28 eyes without ROP with follow up examination, 6 eyes had hypermetropic and 22 myopic. Conclusion: According to the screening outcomes of study, the referral system must be standardized. Pediatricians should refer all high risk babies for ROP screening in time. Timely screening, diagnosis & treatment can prevent blindness and periodic follow up are essential to identify further consequences like high refractive error and squint those responsible for lazy eye   and subsequent development of its sequel.

Keywords: Screening, Visual outcome, Prematurity, Retinopathy.

Doctor-patient relationship: Some small steps can change the world!

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Abstract

From ancient times, physicians have recognized that the health and well-being of patients depends upon a collaborative effort between physician and patient. Patients share with physicians the responsibility for their own health care. The patient-physician relationship is of greatest benefit to patients when they bring medical problems to the attention of their physicians in a timely fashion, provide information about their medical condition to the best of their ability, and work with their physicians in a mutually respectful alliance. If we consider Bangladeshi context, this relationship is passing a time of transition. Yellow journalism, media-conspiracy, silence of the highest authority of medical professionals and several factors have brought this unrest situation either in private or government medical sector in Bangladesh. Some strategies can be taken to develop the relationship between doctor and patient by considering all the extrinsic and intrinsic factors. Time is a major factor in the primary care relationship. To organize face-to-face time with patients, doctors can use several strategies like planning of appointments as per acute or chronic illness by generating test orders, by using charts, written heath history updates and patients self assessment kits. Technology, the second factor, is receiving unprecedented attention with primary care medical home initiatives and meaningful use. In our country, now a significant number of patients use reliable online sources. In this world of technology the physicians of Bangladesh can also start practicing using technology and understanding properly to let their patient understand. Patients and doctors both value courtesy. Respect is a two-way street and can be expressed with simple steps, starting with promptness at appointments. Doctors should value simple words of thanks and patients who refer family or friends. Patients appreciate professionalism. This starts with appearance. Other aspects of professional conduct include technical competence, attentive listening, and careful review of patient history and treatment options. In brief, the relationship between doctors and their patients has received philosophical, sociological, and literary attention since Hippocrates. In our country, it is mandatory to understand the feeling of a patient party by considering the socio-economic background and act as much with sympathy and empathy being a physician. Doctors are role model till now and maintaining this profound relationship can sustain this glory forever.

Perception and attitude on Caesarean section: both client and provider's perspective from Rural Bangladesh

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Abstract

Background: The rising trend of caesarean section (c/s)is major public health concern both for developed and developing countries. Women's perception and attitude towards c/s have a significant role in decision making. Health care provider's role on CS is also being criticized in different research findings. Clinician's affirmative attitude towards c/s may also invite more c/s from maternal request. Methodology: The study was carried out in Matlab, sub district of Chandpur on November,2012. Qualitative study design was used. Study participants were pregnant women attending for ANC during 3rd trimester period, post caesarean mother and doctors providing maternity services both in public and private hospital. 4 FGDs and 20 IDIs were conducted in total. Data analysis was done manually by color coding, clustering and arranging them under common theme in MS-EXCEL sheet. Verbal informed consent was taken from all the participants. Findings: Women in this area have strong preference for normal vaginal delivery(NVD). Agriculture based livelihood, less female autonomy on decision making process and strong cultural preferences are responsible for that. Clients found less knowledgeable on indication of c/s .They have strong faith on primary health care providers like village doctor, family welfare visitor and Traditional birth attendant and believe that they will refer them to the right person and place on any obstetric emergency. The referee gets more tariffs for C/S in compare to NVD from clinic authority. Obstetricians sometime bound to do c/s without valid indication to fit them in competitive practice zone. Doctor's attitude is also influenced by skill, experiences and working place; public vs, Private hospital. Conclusion and recommendation: Client's perception and attitude have less influence on decision of c/s as mode of delivery. Doctor's attitude is mostly guided by their ability to negotiate in between ethics and financial motive. Third party influence on C/S can be decreased by incorporating clients on informed decision making process.

An assessment of iron folic acid supplementation during pregnancy in rural Bangladesh

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Abstract

Background: The most significant contributor to maternal mortality is iron deficiency anaemia (IDA). IDA has underlying significance for the achievement of Millennium Development Goals 4 & 5 to reduce child mortality and improve maternal health. In Bangladesh, 50% of pregnant women suffered IDA. Objective: To assess coverage and barriers of therapeutic supplementation of Iron-Folic Acid (IFA) tablet among women during pregnancy in a selected rural area of Bangladesh. Methodology: A combination of quantitative and qualitative methods was followed to address the objectives. A household survey was conducted with 114 women having at least one child ≤ 2 months of age, to capture their experience with IFA supplementation during their last pregnancy by using an adopted UNICEF questionnaire. The survey was supplemented by Focus Group Discussion (FGD) with selected mothers and designed to explore the demand-side perspectives. Simple Random sampling techniques were used for the selection of the respondents. The facility assessment involved six health facilities in Kalaiupazial of Joypurhat district. Key informant interviews, health facility inventory and review of service statistics related to IFA supplementation during pregnancy over the year prior to the study, were conducted to reveal the supply-side perspectives. The Tanahasi framework was applied to identify coverage and barriers of IFA supplementation through its five tracer indicator e.g. availability, accessibility, utilization, adequate coverage and effective coverage. Results: The IFA supplementation coverage in terms of availability, accessibility, utilization, adequate coverage and effective coverage was 100%, 80.7%, 67.4%, 13.3% and 2.1% respectively among the selected women during the reference period. The percentage of women who completed four ANC visits was only 37.7%. Only 38% of mothers consumed more than 100 IFA tablets during their last pregnancy. A statistically significant relationship was found between the receipt of 100 IFA tablets and continuing use of ANC services. Supply-side barriers to IFA coverage revealed some important programmatic issues: lack of training, job aid, IEC materials, shortage of workforce and high workload. Lack of consciousness, lack of proper knowledge, side effects (bad smell, nausea) of the tablets and unpacked tablet were identified as demand side barriers. Conclusions & recommendations: The results of this study provided a better picture of coverage of IFA supplementation at different government service delivery points in Kalai Upazila, Joypurhat district and focused on understanding barriers of IFA supplementation and its determinants from both supply and demand sides. We strongly recommend to comprehensive training for service providers, a user friendly job aid, improved physical quality of IFA tablet and mass awareness raising campaign should be implemented.

Nutritional Related Cardiac Risk Factors in Patients with Coronary Artery Disease at Dhaka city

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Abstract

Background and Objectives: Diet plays a key role in the pathological processes of atherosclerosis and Coronary artery Disease (CAD). The purpose of this study was to compare nutritional-related risk factors of CAD patients with that of matched controls. Methods and Materials: It was a case-control study. Two hundred ten 105 CAD) subjects in Lab Aid cardiac hospital & Lab Aid Specialized Hospital and 105 healthy subjects were studied. Physical activity levels of the subjects were estimated by using International Physical Activity Questionnaire (IPAQ). Measured variables consisted of blood lipid profile, dietary patterns, anthropometric indices and blood pressure levels. Statistical analyses were performed by appropriate univariate and multivariate techniques using SPSS windows 11.5. Results: Almost all patients had hypertriglyceridemia and high LDL-C levels. Body mass index (p=0.004), WC (male) (p=0.005) and WHR (male) (p=0.020) were significantly higher in CAD group than that of their counterpart Controls. Patients' serum lipid profiles, sugar concentrations, and blood pressure levels were significantly higher than defined cut-off points of the known risk factors. Odds ratios (CI 95%) for consuming fish, Fruits, Fresh vegetables and egg were 2.82 (0131-6.04), 2.07(0.97-4.43), 2.47(1.19-5.15) and 2.38(1.14-10.92) respectively. However, consumption of junk foods and beef was associated with higher CAD risk {OR= 5.49 (2.25-13.38)} and {OR= 2.68 (1.19-4.98)}, respectively. Conclusion: Consumption of fish, fruits, fresh vegetables and fat free yoghurt shown to have protective effects on CAD while junk foods, beef and egg to have increase the risk of CAD. Moreover, CAD patients obviously have higher blood lipids and sugar concentrations, blood pressure and BMI levels compared with their matched counterparts.

A study on oral health status of rural population in Gazipur, Bangladesh-experience gained through an oral health camp

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Abstract

Background: This study aimed to evaluate the oral health status of rural people in Bangladesh focusing on their oral health knowledge and regular practices in oral health maintenance among different age groups. The effects of socio-behavioral factors on the oral health status were also assessed. Methods: A cross sectional study was done in a health camp held at Kapasia, Gazipur, on October 11, 2014. A total of 607 participants were interviewed to gather information about their demography, oral health knowledge, attitudes and practices, habits, and dental services utilization histories through semi-structured questionnaires. Questionnaire includes type, period, duration and severity of pain, brushing technique, frequency of brushing, abnormal oral habit (mouth breathing, bruxism). Later, they went through oral health examination and provided with needed treatment and advised by oral health care professionals. Result: Among 607 camp participants, 21% (130) were found to be cases of dental caries, as determined by the presence of multiple carious lesions; 33% (200) were found to be cases of severe gingivitis, as determined by swollen, red and bleeding gum; 23% (140) were cases of periodontitis, as evaluated by history of pain in periodontium and 22% (137) were cases of severe erosion, attrition & abrasion due to betel nut/betel quid chewing and abnormal oral habits. Analysis of the questioners suggest that the knowledge of oral health and the use of materials to maintain proper dental hygiene; like tooth brush, tooth paste, dental floss was found to be low among the camp participants. More alarmingly, most of the decayed teeth remained untreated. Conclusion: Our experience from cross sectional study suggests that lack of proper knowledge about oral health care makes the camp participants susceptible to various kinds of oral diseases. If these disease conditions remain untreated for longer period, there are higher chances of getting debilitating disorders including oral cancers. Thus, more oral health education programs to increase the awareness of maintaining good oral hygiene should be organized and proper dental health care materials should be ensured to improve the oral health among rural population.

Key words: Oral health, dental caries, periodontitis, oral health facilities.

Understanding the Perspectives of Clients and Providers about Responsiveness of Physicians in Rural Bangladesh

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Abstract

Background: Human resource for health is one of the building blocks of health system. Little research has been done to understand their responsiveness, which, according to World Health Report 2006, is one of the components of human resource for health performance. The objective of this research was to understand the perspectives of service providers and seekers about responsiveness of physicians in rural Bangladesh. Methodology: This qualitative study was conducted in Almadanga, Damurhuda, and Jibannagar upazilas of Chuadanga district. The study involved seventeen in-depth interviews with service providers, seven in-depth interviews and four FGDs with patients, and three weeks of participant observation in different consultation settings. Results: This study found that respect for dignity, confidentiality, autonomy, prompt attention, cleanliness and discipline of staff, clear communication, use of household words, proper referral, explanation of drugs and diagnosis, consultation time, waiting time and trust on providers were important aspects of responsiveness. However perception varied between service providers and clients, and also among different socio-economic groups of clients (high and low) and among different groups of providers (public, private, informal). Doctors acknowledged the importance of allowing the patients to ask questions and of explaining the diagnosis, prognosis and treatment; but patients almost unanimously denied such provisions from doctors. Patients complained that doctors never refer a patient to higher centers, which doctors denied. The constraints against responsive service included shortage and skill-mix imbalance of human resource, infrastructure, equipment, diagnostic facilities, administrative support, political support and security. Establishing an accountability mechanism for service providers was demanded by respondents. Conclusion: This research can contribute in developing a quantitative tool to measure health personnel responsiveness. This might the help policy makers to understand the situation in this regard and take necessary policy decisions.

A qualitative study to explore expectation of adolescent from health service system in Bangladesh

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Abstract

Background: Adolescents constitute 23 percent of Bangladesh's total population of 152 million. Evidence suggests that adolescents have special sexual and reproductive health information and service needs. However, adolescents often lack this basic information and access to affordable and confidential reproductive health services. This study was conducted to identify the major issues that adolescents are expecting from the health service providers and from the policy makers of Bangladesh. Methods: This qualitative study was conducted through 20 Key Informant Interviews in 6 selected sites (Chakaria, Lalmonirhat, Naogaon, Dhaka, Khulna, and Narail) of Bangladesh. Researchers collected information from male and female adolescents aged 15 to 19 years who were members of youth club/organization or identified as youth leader in the community. Results: The study identified differences between sexual and reproductive health service and information needs by area, gender and marital status. Both urban and rural adolescents recommended building up "Adolescent Corner" in every government and NGO health service center which will provide sexual and reproductive health information and services and counseling at one point. They also asked for gender specific service provider for female and male adolescent. In addition, urban adolescents described the need for school health program with provision of school health clinics. However, the rural adolescents described the need for community health workers involvement to aware parents and families on adolescent sexual and reproductive health. Conclusion: There is a strong need for sexual and reproductive health services for adolescents, precise by urban-rural area and gender. To improve adolescent sexual and reproductive health we need to increase the capacity of families, schools, and communities. Addressing their demand, a community based health system is possible to establish in order to improve adolescent sexual and reproductive health service system in Bangladesh.

Key Words: Adolescent, sexual and reproductive health, health service system, key information interview.

Prevalence of Hepatitis C, HIV and Syphilis among the blood donors of Faridpur, Bangladesh

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Abstract

Background: Transfusion of blood and blood components not only saves millions of lives and reduce morbidity but also an increased transmission risk of HCV, HIV and syphilis is associated with it with other complications. Effective screening procedure can prevent this infectious blood from entering the blood pool. Objective: The objective of this present study was to assess the status of transfusion transmitted infections (TTI) among the apparently healthy donors and Frequency distribution of Hepatitis C, HIV, and Syphilis in respect of donor type, sex, age groups and their religion. Method: A retrospective type of descriptive study has been conducted among the 719 blood donors in the Faridpur district of Bangladesh for four months in 2013. Face to face interview, blood grouping test, and detection of HBsAg through ELISA based assay were parts of the study. Results: Young aged donors and B positive blood groups were predominant in our study. More of them were replacement donors, principally male persons. Most of the documented donors were Muslim than other religions. In our study, seroprevalence of syphilis was 2%, hepatitis C was 0.7%, and HIV was 0.4%. The common frequent age for the hepatitis C, HIV, and syphilis infection was above 49 years, 20 to 24 years, and 25 to 29 years respectively. Males were chiefly infected due to hepatitis C where females were chiefly infected by syphilis. All types of blood groups showed more infection by syphilis, than hepatitis C or HIV. About 4.3% of the voluntary donors were infected where only 2.6% of replacement donors were positive for these infections. Conclusions: The seroprevalence of these TTIs indicate that we need to tighten our surveillance on blood transfusion to prevent transmission of these agents. Introduction of nucleic acid testing (NAT) in our national guideline for transfusion is also recommend.

Recent increase of breast cancer among young aged females: A hospital based study

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Abstract

Background: A notion prevailed for many years that breast cancer rarely occurs in young women though recent data shows a shift from that myth. In the year 2000, only about 2% of the patients with breast cancer were <35 years old at the time of diagnosis. Young aged breast cancer has been reported to have a more aggressive biological behavior and are associated with a more unfavorable prognosis compared with the disease in older patients. Specifically, in previously published reports, tumors in younger women were less well differentiated (higher grade), had a higher proliferating fraction and had more vascular invasion than those occurring in older patients. For women aged 25–39 years, breast cancer rates were steady until 2002 and increased sharply thereafter, being 19.7/100 000 in 1995, rising to 53.9/100000 in 2004. Breast cancers in young women are typically aggressive, in part owing to the over-representation of high-grade, triple-negative tumours, but young age is an independent negative predictor of cancer-specific survival. Very early age-of-onset also correlates strongly with the risk of local recurrence and with the odds of contralateral breast cancer. Objective: The aim of this study was to determine current prevalence of young aged breast cancer among the women of Bangladesh and determining their histological subtype and hormone receptor status. Materials and Method: It is a cross sectional observational study conducted in the BSMMU, Dhaka, Bangladesh in between August, 2008 to January, 2014 involving 52 patients. Samples were obtained through convenient sampling method. Research instruments included a self constructed data form consisting of details history, thorough clinical examination, investigations and stages that were done by the concerned doctors. The researchers themselves attended the patients and data were collected by using preformed data collection sheet. After collection the data was cheeked, verified, edited manually for consistency to reduce error. Result: Among 52 patients enrolled for the study 65% (34) was at or below the age of 40 years, which shows the alarming increase in the incidence of breast cancer among young aged females. 90% were married. Family history was positive for 40% of patients. At the time of diagnosis 32.7% were in stage II, 15.4% in stage III, 7.7% in stage I and 1.9% in stage IV. Staging was not known for 42.3% of patients. Among the histological subtype 40.4% had invasive ductal cell carcinoma, 26.9% had infiltrating ductal cell carcinoma, 19.2% had duct cell carcinoma and for 13.5% of patients histopathological report was not found. Hormone status showed 25% having triple negative, 19.2% having triple positive, 11.5% having ER, PR negative but HER2 positive, 7.7% having only ER, PR positive and 5.7% showing ER negative but PR and HER2 positive breast cancer. Conclusion: The incidence and prevalence of young age breast cancer in increasing alarmingly throughout the world and the rate is also high in Bangladesh as well. Most of the young aged patients had advanced disease at the time of diagnosis and had undifferentiated histological type with dominance in triple negative breast cancer which are responsible for the poor prognosis of the patients.

Key words: Breast cancer, Young age, Poor prognosis, Bangladesh.

Non communicable disease (NCD) management role of primary care respiratory physician in developing country

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Abstract

Patient attending in a Government and non-Government health care delivery center with lot of expectation about their consultation, counseling, treatment & wellbeing. Reality is that most of the patient and care giver are not aware about their health related issues. Respiratory problem especially asthma & COPD increasing day by day in developing countries like Bangladesh. COPD will be 3rd leading cause of death by the year 2030. Patient education, counseling, awareness, treatment Dr & rehabilitation are main motto to asthma and COPD patients and also others NCD diseases. Respiratory physician are very limited especially primary care. There is no ideal model or unique practice pattern to patient Centre care within our limited resources. What will do for our service development?

National profile of non-communicable disease risk factors in Bangladesh

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Abstract

Background: The limited available evidence suggests that NCDs are responsible for half of annual mortality (51%) and almost half of the burden of disease (41%). In 2007, non-communicable diseases (NCDs) were reported to represent the highest cause-specific mortality burden among adults in Bangladesh. Objective: To describe the prevalence of selected NCD risk factors in Bangladesh through a nationwide analysis. Method: Total 22454 Bangladeshi population more than 15 years old were included in this analysis. The sampling design was multistage stratified clustering including seven divisions of Bangladesh in both rural and urban areas. The target population for this survey includes all men and women aged 15 years or older who consider Bangladesh to be their primary place of residence excluding those who were in military base or group quarters (e.g. a dormitory) and who were institutionalized. The study uses the WHO's STEPS approach (modified), which entails a stepwise collection of the risk factor data based on standardized questionnaires covering demographic characteristics, somatic illnesses, somatic and mental symptoms, medications, life style, and health-related behavior (step 1), basic physical measures (step 2) and basic biochemical investigations, such as levels of blood glucose and cholesterol (step 3). Result: Of the study participants about 45.9% males and 54. 1% females, 52.78% from rural areas, 47.22% from urban areas and about one in four (24.4%) had no formal education. Blood pressure, fasting blood sugar and lipid profiles were measured in 99%, 85% and 60% respectively of the 20,039 participants. In Bangladeshi population the total prevalence of selected risk factors are as follows: smoking (21.7%), smokeless tobacco (30.8%), low intake of fruits and vegetables per day (86.9%), inadequate physical activity (41.4%), alcohol consumption (0.7%), raised blood pressure (23.8%), diabetes (10.6%), overweight and obesity (24.1%), abdominal obesity (19.7%), raised total cholesterol (28.0%), hypertriglyceridemia (33.8%), low HDL level (65.7%). Nearly half of the participants use any types of tobacco, 17.8% reported having been diagnosed with high blood pressure, and 6.5% reported having diabetes. Overweight, abdominal obesity, physical inactivity, low intake of fruits and vegetables per day, smokeless tobacco, raised cholesterol and raised blood pressure (BP)were more common in females than males, 25.5% vs 22.7%, 31.1 vs 8.3, 60.1% vs 22.6%, 93.1% vs 80.6%, 31.9 vs 29.6, 30.7% vs 25.3% and 26.6%vs 21.0%. A total of 5.07% of the teenagers had one risk behaviour, 20.74% had two, 28.57% had three, and 43.37% presented all the investigated risk behaviors. Only 2.25% did not display any of the analysed risk behaviours. Conclusion: Diabetes, high blood pressure, high TG, low HDL, and obesity are a public health concerns in Bangladesh. Adequate and continuous monitoring of NCD risk factors in Bangladesh is needed, and the surveillance findings should be used in health promotion and disease prevention activities.

Community awareness about carcinoma cervix and analysis: In a peri urban area

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Abstract

Objective: Carcinoma Cervix is virtually non-existent in the development countries, due to excellent screening facilities for carcinoma Cervix. But it is still prevalent in low resource setting. One of the main reasons is lack of awareness about the disease. So with this objective the study was conducted to analyze the situation about the awareness of the women attending a hospital. Methodology: A cross sectional observational study has been done from January-December'13. A structured questionnaire was administered among the women attending anti-netal clinic and gynaecology clinic of a private hospital setting. A total of 300 women were enrolled by random sampling. Results: Most of the women about 80% were not aware about the carcinoma cervix. Majority of the women had not heard about the screening methods. About 92% had never heard that vaccination is means for primary prevention. Treatment of precancerous lesions as secondary prevention. The disease is 100% treatable in early stage. This was unknown to all them. Conclusion: Still community awareness is lacking among the general people particularly among the women. Strong efforts are needed for raising community awareness. This needs strong government and private partnership. Mass-media should come forward in this regard.

Quality of care in maternal health: are we conscious enough?

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Abstract

Quality of care is a concept that has gained much emphasis in the health service currently. It indicates a complex interplay between policy matters, health financing, supply, competence of human resources and user satisfaction. The quality care must be provided with compassion, dignity, confidentiality, continuity and informed choice. Government of Bangladesh has implemented health nutrition population sector program (2003-2010) as overall health services plan for the country. An evaluation of the HNPSP program raised the quality issues as priority gap to resolve particularly in the area of MNH. An action research has been conducted at institute of child and mother health during March to June 2012 with the objective of adopting standard guidelines for quality of maternal health care. Baseline survey revealed infrastructural set up and overall cleanliness were reasonably appropriate for providing reproductive health care. There was lack of awareness among health care providers on quality issue of service delivery. However, different service delivery was according to standard protocols. Record keeping was not optimum in all spheres including outpatient, inpatient, labour room and operation theatre. Infection control service was available but not optimum and it demands immediate attention. Regular monitoring can help to better understand existing gaps in practice and determinants of client satisfaction and implement appropriate interventions for quality of care. It is recommended to adopt standard guidelines for regular use with continuous monitoring and feedback in the health facility.