

DAY 1 : ORAL PRESENTATIONS

**Session 4 : Theme : Communicable disease
and Antibiotic Resistance**

Chairs :

Prof. Dr. Be-Nazir Ahmed

Prof. Dr. Nilufar Begum



Public Health Foundation Day 2017

Detection of *Giardia lamblia* and *cryptosporidium* SP in Diarrheal stool Samples of slum children and in waste water @ soile Samples by real time multiplex PCR and taqman array card (TAC) system

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ABSTRACT

Background: Diarrhea is a leading cause of infant mortality and a major public health concern in developing countries. The most common intestinal protozoan parasites for diarrheal infections are *Giardia lamblia* and *Cryptosporidium* sp. Environmental pollution, sanitary condition, human behavior and poverty play an important role in the transmission of these parasites.

Objective: The objective was to observe the prevalence of two diarrhea causing protozoan parasites (*Giardia lamblia* and *Cryptosporidium* sp.) diarrheal stool as well as in environmental samples (soil and waste water) by Real-Time PCR and Taq Man Array Card (TAC) system according to age (child), months and seasons to determine control and prevention measures against these intestinal parasites in the community.

Methods: This investigation was a cross sectional type of birth cohort study and both the diarrheal stool samples and environmental (waste water & soil) samples were collected from Mirpur slum area, Dhaka. The population of the study was children aged between 14-19 months enlisted in "Cryptosporidiosis study in Bangladesh" during the study period. During the study period from January to December 2016, total 511 child diarrheal stool samples from 168 children and environmental (28 wastewater & 20 soil) samples from July, 2016 – June, 2017 were collected from field households by simple random sampling technique. Laboratory works were conducted in the Parasitology laboratory of icddr,b which includes real time multiplex PCR and Taq Man Array Card (TAC) system. All the data were primary data and analyzed by the Microsoft-10 Excel and SPSS software version 21.

Results: Among the 511 stool samples of children with diarrhea, the prevalence of *Giardia lamblia* was 29.35% (n=150) and that of *Cryptosporidium* sp. was 15.06% (n=75). The highest prevalence was found in 18-19 months children (59.7%) and lowest in 14-15 months (28.15%). In this study, the prevalence was higher in rainy season (59.28%). Prevalence was lower in winter season (38.63%). Moreover, the highest prevalence was in the month of July (81.81%). In case of environmental samples, out of total 28 wastewater samples 24 samples were positive for *Cryptosporidium* sp. (85.71%). Out of total 20 water samples, 4 samples were positive for *Cryptosporidium* sp. (14.29%). There was no *Giardia lamblia* positive sample in both cases. In wastewater samples 14.29% had single infection with *cryptosporidium* sp., 85.71% had co-infection, 57.71% had triple infection, 71.42% had quadruple, and 42.86% had multiple infections. Whereas, out of 20 soil samples, 100% had co-infection, 100% had triple infection, 80% had quadruple infection and 60% had multiple infections.

Conclusion: In this investigation PCR and TAC system was demonstrated to be accurate and useful tool in the detection of *Giardia lamblia* and *Cryptosporidium* spp. from diarrheal stool and environmental samples (soil and wastewater) as these methods came up with very good results and prevalence that supports previous works. Besides this, to improve diarrheal condition governmental and non-governmental organization should pay more attention to improve the environmental condition of the slum dwelling areas.

Key words: Diarrhea, prevalence, protozoan parasites, PCR, TAC



Public Health Foundation Day 2017

Impact of mobile communication to reduce Adverse Drug Reactions (ADRs) of MDR TB patients in a specialized tertiary care hospital

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ABSTRACT

Background: Multidrug Resistant Tuberculosis is a global threat. Bangladesh, which is listed among the 30 high TB burdened countries. Until last year, a total of 223,922 people were detected with tuberculosis, including 9,700 multi-drug-resistant tuberculosis (MDR-TB) patients. Drugs have great potential to develop adverse drug reactions (ADRs) in MDR TB patients. Timely monitoring and regular communication with the patients and also with the DOTs provider provides the quality treatment services to ensure better treatment outcome. To manage ADRs promptly and effectively, mobile communication plays a vital role for early detection & proper management.

Objective: The main objective was to see the benefit of mobile communication in the early detection and management of ADRs in MDR TB patients.

Methods: Study was designed for retrospective analysis of patients treated with standardized conventional regimen for MDR-TB, as per NTP guidelines at National Institute of Diseases of the Chest & Hospital (NIDCH) between July 2015 and June 2016. Secondary data were collected from the hospital records. First group was recorded with 447 patients who visited in 3rd and 4th quarter in 2015 for routine and regular medical checkup. On the other hand second group was recorded with 644 patients who visited in 1st and 2nd quarter in 2016 for their medical problems related with MDR TB treatment. In 2015, patients were monitored by making visits physically when needed at NIDCH from the different part of the country to manage ADRs. On the hand, in 2016 patients were monitored through mobile communication as well as physical visits as per the necessity of the patients. In both time, findings were monitored and recorded according to the ADRs and ADRs were managed both direct intervention or by mobile communication.

Results: With the aid of mobile communication, there was drastic reduction of severe form of ADRs. Over mobile phones patients were communicated, monitored, advised according to their severity of the problems. Hearing loss is an acute irreversible change due to Injection Aminoglycoside (Injection Kanamycin). Prompt response, effective communication and management over phone reduced the hearing loss up to 8.5%. Previously it was 12%. On the other hand, body ache (especially arthralgia), GI upset and sleep disturbance reduced significantly. Most important in group A, arthralgia and vomiting account 90% and 80% respectively which were the most commonly occurring ADRs. Whereas in Group B, these two ADRs reduced to 26.1 and 18.9% respectively. Moreover some less frequent but severe ADRs like hypothyroidism, hyperurecemia, sore throat, hemorrhoids, electrolyte imbalance were noticed and recorded and managed properly in second session.

Conclusion: ADRs are more common in MDR TB patients on second line anti tubercular treatment. Treatment of MDR-TB is challenging with ADRs and majority of them can be successfully managed without treatment interruption. With the help of mobile communication, the DOT providers as well as patients can directly communicate with the treating physician which is the excellent mean to triage the severe ADRs to take the necessary actions on the basis of severity. This facilitates the prompt services for the patients to have a smooth journey with MDR TB treatment.

Keywords: MDR-TB (Multidrug resistant tuberculosis), ADR (Adverse drug reaction), Adherence, Outcome, Second line anti TB drugs, DOTs, Aminoglycosides, community management.



Public Health Foundation Day 2017

Impact of helminth infection on antimycobacterial immune responses in UK migrants

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ABSTRACT

Introduction: Tuberculosis and helminth infections are co endemic in many parts of the world. This geographical overlap has led to the hypothesis that helminth infections could exacerbate the effects of *Mycobacterium tuberculosis* (Mtb) infection. Anthelmintic treatment has been observed to be associated with improved mycobacterial cellular responses and decreases in the frequency of Treg cells. The consequence of this immunomodulation may affect the ability of the host to restrict the growth of mycobacteria.

Objective: This study aims at investigating the modulations of the immune response profile of latent tuberculosis (LTBI) and helminth co-infected patients and whether these modulations are associated with a decrease in mycobacterial growth inhibition using a mycobacterial growth inhibition assay (MGIA).

Methods: UK migrants attending University College Hospital London, UK with eosinophilia or suspected/diagnosed helminth infection (*Strongyloides* spp and *Schistosoma* spp) and/or LTBI were bled at recruitment (before anthelmintic treatment) and 4 months after completing anthelmintic treatment.

Results: Helminth infected patients displayed poor growth inhibition on MGIA which was improved after anthelmintic treatment, indicating this immunomodulation might be helminth mediated. The percentages of CD4+ T cells expressing IFN- α , TNF- α and IL-2 were quantified by flow cytometry in PPD and ESAT-6/CFP-10 stimulated PBMC and anthelmintic treatment was observed to increase the frequency of the CD4+ IFN- γ response. LTBI-helminth coinfection was associated with significantly elevated levels of pro-inflammatory and lower levels of anti-inflammatory cytokines after helminth treatment. The effects of IL-10 and TGF β on MGIA were observed and suggested an immunoregulatory role in helminth-infected patients. Gene expression analysis by qRT-PCR showed varied responses and fold changes after the treatment.

Conclusion: MGIA and multiple immune parameters have shown that helminth infection can modulate a variety of Mtb specific immune responses. and may provide immune signatures of the modulation following anthelmintic treatment.

Keywords: MGIA, LTBI, Anthelmintic treatment



Public Health Foundation Day 2017

Knowledge, Attitude and Practice of General Public in Dhaka City regarding Use of Antibiotics

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ABSTRACT

Background: Widespread availability and inappropriate use of antibiotics by patients is the important contributing factor for the increase of antibiotic resistance.

Objective: This study sought to explore the current situation of antibiotic usage among the general public in Dhaka city.

Methods: This cross-sectional study was conducted in 3 wards of Dhaka city on 120 general people who were randomly selected. Data were collected by face-to face interview using a semi-structured questionnaire focusing on the use of antibiotics. Data were analyzed by SPSS version 17.

Results: Among the respondents, 49.2% were less than 30 years old, 39.2% were graduate & beyond and 52.5% were service holder. More than 70% respondents were male and 72.5% were married. We found that 57% respondents used antibiotics without a doctors' prescription. According to them, saving time (67%), high cost investment (56%) and less trust in the doctors (12%) were the reasons for self-medication. Previous doctors' prescription (47%) and recommendation of community pharmacists (44%) were the important source of antibiotic selection. Among all of them, almost 94% had taken antibiotic at least once in last one year. Fever (72%), cough (40%), diarrhea (33%) and pain & aches (31%) were the main complaints for usage of antibiotics. About 60% respondents had poor knowledge and 40% had negative attitude towards antibiotics. More than 70% in poor knowledge group and 32% in satisfactory knowledge group used antibiotics without prescription ($p < 0.001$). On the other hand, 73% respondents with negative attitude and 40% with positive attitude admitted to self-medicate ($p < 0.004$). All illiterates were taken antibiotics without prescription, whereas 82% among primary educated respondents and about 40% among the graduates were taken antibiotics without prescription. We didn't find any statistically significant association of socio-demographic variables with self-medication other than education level ($p < 0.029$).

Conclusion: Self-medication with antibiotics is common among the general public in Dhaka city. A well-planned, organized, structured and sustained awareness program should be undertaken to improve the knowledge regarding the disadvantages and bad consequences of antibiotic use without a doctors' prescription.

Keywords: Knowledge, Attitude, Practice, General public, Antibiotic, Self-medication.



Public Health Foundation Day 2017

Determinants of adult tuberculosis in Bangladesh: A matched case control study

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ABSTRACT

Background: Tuberculosis (TB) is a multi-systemic infectious disease that has evoked a substantial disease burden in developing countries, including Bangladesh. The aim of this study is to determine the prominent risk factors for adult tuberculosis in a TB referral hospital in Dhaka, Bangladesh.

Materials and Methods: A matched case control study was conducted among 357 patients (178 cases and 179 controls) from a selected TB hospital in Dhaka. Data was collected via face-to-face interview using a standard structured questionnaire, posing questions about socio-demographic, clinical and behavioral factors. Crude and multivariate logistic regression analyses were used to analyze the data.

Results: The multiple logistic regression analyses indicated that education beyond the secondary level (OR=0.17, CI=0.041-0.635), monthly income (OR=0.178, CI=0.051-0.574), area of living (OR=0.325, CI=0.172-0.600), number of rooms (OR=0.092, CI= 0.038-0.213), and history of diabetes mellitus (OR=4.064, CI=0.845-20.599) were significantly or almost significantly associated with TB status.

Conclusion: TB is a multi-factorial disorder. In this study, the identified risk groups for tuberculosis reflect a complex interaction between socioeconomic conditions and chronic disease status. Interventions focused on education and poverty will undoubtedly be useful, but not sufficient. Tuberculosis control would benefit from a collaboration of broad public health activities aimed at the prevention and control other chronic diseases. The integration of TB control activities with diabetes programmes is crucial in Bangladesh.

Keywords: Tuberculosis, Risk factors, Diabetes, Chronic disease Prevention, Bangladesh.



Public Health Foundation Day 2017

Determinants of HIV/AIDS knowledge among ever married women of reproductive age in Bangladesh: Evidence from BDHS 2014

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ABSTRACT

Background: HIV/AIDS is considered as one of the major disease burdens in both national and international settings. Knowledge about HIV/AIDS is very crucial, especially for women, for prevention of such burden. This study aims to explore the determinants of HIV/AIDS knowledge levels among ever-married women of reproductive age in Bangladesh.

Methodology: Data of 17,863 ever-married women of reproductive age were extracted from a nationally representative two stages stratified Bangladesh Demographic and Health Survey conducted in 2014. Knowledge levels of women regarding HIV/AIDS was constructed by scoring of 11 dichotomous knowledge questions and breaking it down into three categories: low (score=0-7), moderate (score=8-9) and high (score=10-11). Multiple multinomial logistic regression model was used to identify the determinants of knowledge levels of HIV/AIDS.

Results: Nearly three out of four respondents ever heard of AIDS while 33.8% respondents have low- followed by 34.4% moderate and 29.7% high- knowledge about HIV/AIDS. Women belonging to age at first marriage 15-19 and those greater or equal to 20 years were respectively 1.14 and 1.35 times more likely to have high knowledge regarding HIV/AIDS than women age at first marriage less than 15 years, whereas women exposed to mass-media were respectively 2.28 and 2.77 times more likely to have moderate and high HIV/AIDS knowledge than women not exposed to mass-media. Women using condom during sex were more likely to have moderate (aOR=1.26, 95% CI:1.01-1.57) and high (aOR=1.48, 95% CI:1.18-1.85) knowledge than women without using condom. Women belongs to richest quintile were 2.31 times more likelihood of AIDS knowledge than women in poorest quintile.

Conclusion: HIV/AIDS related knowledge is lower among reproductive women in Bangladesh. Necessary actions can be taken to enhance HIV/AIDS knowledge with consideration of the factors identified to design interventions in Bangladesh

Key words: HIV/AIDS, Ever-married reproductive women, Age at first marriage, Bangladesh



Public Health Foundation Day 2017

Prevalence and Antibiotic Resistance Pattern of Uropathogens and Physicians Antibiotic Prescription Pattern: Report from a Teaching Hospital in Bogra, Bangladesh

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ABSTRACT

Background: Antibiotic resistance is an important obstacle for treatment of UTI especially in low cost health setup of developing countries.

Objectives: The aim of this study is to investigate the resistance pattern of the common pathogens responsible for UTI in Bogra, Bangladesh. Specific factors associated with antibiotic resistance and prescription pattern were also explored to render data for appropriate empiric evidence-based antibiotic guidelines for this area.

Methods: This retrospective analysis was done among the patients presented with clinical suspicions of UTI for a period of 1 year from October 2016 to September 2017. A total 1256 patients were included in the study. A single clean catch midstream urine sample was collected and samples with more than 10⁵ CFU/mL bacteria were considered positive for UTI. A total of 552 samples met the inclusion criteria and bacteria were identified by standard microbiological techniques and the profile of antibiotic susceptibility was obtained using Kibry-Bauer method following Clinical and Laboratory Standards Institute (CLSI) guidelines. Patients' characteristics, self-reported previous antibiotic consumption history within last 1 year, presenting symptoms, empirical antibiotic prescription given at presentation are also recorded and statistical analysis was done using Stata 15 to investigate the possible factors associated with resistance.

Results: UTI was more common in women (61.5%) and its incidence varied with age, affecting more among elderly patients (29.6%). E.coli was the predominant isolate (61.05%, n=337), followed by klebsiella (22.28%, n=123). E. coli showed very high frequency of resistance ranging from 54.30% to 77.15% to cefixime, ciprofloxacin, cotrimoxazole and nalidixic acid, moderately high resistance (47.18% to 48.96%) to cefipime, ceftazidime, ceftriaxone and azithromycin and low resistance (1.19% to 16.62%) to imipenem, amikacin, nitrofurantoin and netilmicin. Previous antibiotic consumption history revealed macrolides, cephalosporins and quinolones are mostly consumed antibiotic and 36.34% was based on self medication and 25.78% was recommended by quacks and drug sellers. About 78.29% registered physicians used empirical antibiotic at presentation. Mismatching differences of antibiotic prescription and resistance were slightly evident.

Conclusion: High percentage of resistance to most of first line low cost antibiotics made the choice of empirical therapy critical. Continued surveillance, educational interventions and antibiotic stewardship programs for clinicians are necessary to fight the rising problem of antimicrobial resistance. Further exploration of physician prescribing behavior with development of evidence based empirical therapy for infectious diseases is recommended

Keywords: Prevalence, Antibiotic resistance, Antibiotics, Uropathogens,

DAY 1 : ORAL PRESENTATION

Session 5 : Theme : NCD-I (DM)

Chairs :

Prof. Dr. Shuvagata Choudhury

Prof. Dr. Shamim Ahmed



Public Health Foundation Day 2017

Prevalence of diabetes mellitus and related cardiovascular disease risk factor in an ethnic community of Bangladesh

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ABSTRACT

Background: Diabetes Mellitus (DM), is a fast expanding health problem worldwide. It is a major reason of morbidity and mortality worldwide. In the presence of obesity and hypertension Diabetes is a significant risk factor for cardiovascular disease. The study was aimed to estimate the prevalence of diabetes and its related cardiovascular risk factors in an ethnic group (Behari people) living in Bangladesh.

Methods: This is a community based cross sectional study which was conducted in 2015 through face to face interview in camp settings. The study involved total of 300 participants (aged 30 years or more) by following purposive sampling procedure. Oral glucose tolerance test (OGTT) was performed to diagnose diabetes according to the criteria of World Health Organization (WHO). Presences of cardiovascular risk factors were determined by measuring Blood Pressure, BMI, Total cholesterol, Waist Hip Ratio etc. Logistic regression analysis was used with or without Adjustment for potential confounders.

Results: Among 300 respondents 67% were females and 33% were males. The mean age was 47.2 with SD 12.9 years. Prevalence of Diabetes was found to be 29.3%. Among the diabetics 31.8% respondents were females. In this study 35.5% respondents gave positive family history of diabetes. In case of shared risk factors, hypertension was reported among 22.7% of respondents. Prevalence of high cholesterol was found among 45.7% of study subjects. Waist circumference was found to be high in 69.7% of study subjects. Low physical activity was found among 36.3% of study subjects. Significant association of hypertension was found with age, education and monthly income.

Conclusion: Among the study population prevalence of Diabetes mellitus was 29.3%. Significant association of hypertension was found with age, education and monthly income. It is important to include these ethnic groups in the county's health policy for prevention and control of Diabetes.

Key words: Diabetes, Cardiovascular disease, Risk factors, Minor ethnic groups, Bangladesh



Public Health Foundation Day 2017

Proportion and Risk Factors of Diabetic foot ulcer in Diabetic patients at BIRDEM General Hospital, Dhaka

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ABSTRACT

Background: Diabetic foot ulcer is a common complication of Diabetes leading to hospitalization. It is estimated that 20 % of Diabetic patients will develop an ulcer on the foot or ankle at some time during the disease course. Some of these foot lesions progress to the most severe diabetic foot complications, which is lower extremity amputations.

Methodology: A descriptive cross sectional study was carried out to estimate the proportion and risk factors of Diabetic foot ulcer among registered Diabetes Mellitus patients in BIRDEM Hospital from May 2016 to December 2016. Data were collected by face to face interview and hospital records from 120 respondents using purposive sampling method. Data were analyzed by SPSS version 16. Both descriptive and analytic statistics were used.

Result: The mean age of the respondents was 49.75 ± 12.26 and 41.7% were female, 54.2% came from rural area. In this study, mean fasting blood sugar of the respondents was 8.97 ± 2.506 mmole/L and 85.8% were taking insulin. Majority of the respondents 78.3% had HbA1C >6.5 and 40% had smoking history. Most of them received advice on foot care (78.3%) and doctors were the main source of information (51.7%). Most of the diabetic patients 90 (75.0%) inspect feet regularly but 55.8% used ill-fitting shoes. The proportion of diabetic foot ulcer was 21%. Bivariate analysis was done and Diabetic Foot ulcer was significantly associated with smoking history, residential status and duration of diabetes ($p < 0.05$).

Conclusion: Lower-extremity complications of diabetes such as foot ulcers constitute a substantial burden for diabetic patients. In addition to regular diabetic care emphasis should be given on enhancing diabetic patient's knowledge of self-care practice and regular diabetic foot evaluation.

Keywords: Foot ulcer, HbA1c, Diabetes self-care, Fasting blood sugar.



Public Health Foundation Day 2017

Pattern of drug, diet and physical activities among diabetic patients: In-depth and concerning socio-economic status index

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ABSTRACT

Background: Diabetes is a huge and costly chronic metabolic disease, spreading like spider net in Bangladesh. Drug, diet and physical activities are key concerns for the proper management of diabetes where socio-economic status plays a vital role. Very few studies found to illustrate the issues precisely based on rural area of Bangladesh. This study was designed to observe the scrutinized pattern of drug, diet and physical activities as well as in relation to socio-economic status index.

Methods: A cross-sectional study was conducted among 990 diabetics aged between 18-64 years residing in Thakurgaon district of Bangladesh. Data were collected by face to face interview method. The socio-economic status index was derived from a principal component analysis (PCA) of household assets of the respondents.

Results: A majority (66.7%) of the respondents of poorest quintile found with skipping drugs and the number of skipped drugs implies ($M \pm SD$, 3 ± 2). Average proportions of non-diabetic drug (antibiotic, vitamin and others) intake (53.3%) was found nearly similar like diabetic drug intake (46.7%). A good proportion of respondents (68.9%) of poorest quintile were identified to take meals ≤ 4 times/ day and only 2.9% were taking evening snacks which is very alarming for diabetic patients because drop out of evening snacks may cause of hypoglycemia and sudden death. Poor calorie, carbohydrate, protein and fat intake was seen in 84.7%, 82.3%, 77.5% and 71.1% of patients of poorest quintile respectively. Only 28.6% of the patients of richest quintile were revealed with walking >150 minutes/week while an increasing proportion were found in case of walking included moderate activities >150 minutes/week. Seating duration ≤ 180 minutes/ day was observed amongst half (51.4%) of the respondents of richest quintile.

Conclusion: An alarming high proportion of diabetics are found with poor practices in drug and dietary management under the poorest socio-economic quintile. While poor practices of physical activities are also picturized under the richest socio-economic quintile. Long term health promotional programs including monitoring and reminder system could motivate patients for proper management of diabetes.

Key Words: drug, diet, physical activities, diabetic patients, socio-economic status index



Orthostatic hypotension in type 2 diabetes mellitus patients and its association

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ABSTRACT

Background: Orthostatic Hypotension is a serious and common complication of diabetes mellitus. Diabetes mellitus is a chronic disease and one of the most common non-communicable disease. Diabetes is also one of the fastest-growing health problem in the World.

Objective: This study was carried out to determine the proportion of orthostatic hypotension in type 2 diabetes mellitus patients in a diabetic clinic and its associated factors.

Methods: This cross sectional study was conducted in 275 diagnosed type 2 diabetic mellitus patients attending at the outpatient department of Faridpur diabetic association medical college and hospital, Faridpur from January to December 2015. Samples were selected by convenient sampling from diagnosed type 2 diabetes mellitus patients who fulfilled the selection criteria. Data were collected through face to face interview and blood pressure measurement and documents review. Two supine measurements were performed after 5 minutes of rest, followed by two measurements after 1 minute standing and two measurements after 3 minutes standing. Mean values of the baseline, 1-minute and 3-minute measurements were calculated. Orthostatic hypotension was defined as a fall in blood pressure of at least 20 mm Hg systolic or 10 mm Hg diastolic after either 1 or 3 minutes in an upright position. Patients having orthostatic hypotension were compared with those having no orthostatic hypotension for different clinical and biochemical parameters using statistical program for social sciences.

Results: The proportion of orthostatic hypotension in type 2 diabetic patients was 21.45%. The mean difference of age was statistically highly significant with orthostatic hypotension ($p < 0.001$). The influence of educational group on orthostatic hypotension was statistically significant ($p < 0.05$). The mean difference of duration of diabetes mellitus was statistically significant with orthostatic hypotension ($p < 0.05$). Also the mean difference of one of the glycemic status HbA1C was statistically highly significant with orthostatic hypotension ($p < 0.001$). The influence of neuropathy on orthostatic hypotension was statistically significant ($p < 0.05$).

Conclusion: Orthostatic hypotension was found a common complication in type 2 diabetes mellitus patients in Faridpur and neighborhood districts. It is recommended that measurements of standing and lying blood pressures should be part of the standard care of type 2 diabetes patients.

Keywords: Orthostatic hypotension, Type-2 diabetes mellitus, Blood pressure, HbA1C



Public Health Foundation Day 2017

Service delivery provisions for prevention and management of type 2 diabetes in selected health facilities of Dhaka division, Bangladesh: A qualitative study

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ABSTRACT

Introduction: As a result of evolving demographic and epidemiological transitions, Bangladesh is currently facing rapid increase of people with non-communicable disease, including Type 2 Diabetes Mellitus (T2DM). The health systems face challenges in delivering health services for T2DM prevention and management.

Objective: This study aimed to explore adequacy, accuracy and coordination of service delivery for T2DM prevention and management in health facilities of Dhaka division, Bangladesh.

Methodology: Primarily, a qualitative approach was used to collect data from five health facilities across Dhaka division. Twelve participants were interviewed using pre-tested in-depth interview (IDI) and key informant interview (KII) guidelines. Other methods included informal discussion and review of relevant documents. Participants included physicians (6), nurses (4) and administrative staffs (2) working in 3 public-sector and 2 non-state autonomous sector health facilities.

Results: Providers (8) from public facilities did not receive any in-service training on diabetes which was contrary to autonomous facilities. Most of the participants (10) mentioned they faced shortage of human resources. Vacant positions were found in only in primary level health facility. Most participants (10) mentioned facing huge workload while others felt it is manageable. Participants (7) from primary and secondary facilities mentioned incapability of the facilities in handling complicated diabetes cases which was not the case for tertiary level health facilities. Participants (8) also informed shortcomings of delivering preventive services in all public-sector health facilities. All participants acknowledged the importance of patient education and counseling in diabetes prevention and management. Public-sector health facilities (n=5) at primary and secondary levels did not maintain any specific referral mechanism, whereas the autonomous health facilities followed specific referral network.

Conclusion: Public-sector health facilities lag behind the non-state autonomous sector health facilities in terms of adequacy, accuracy and coordination of service delivery for people with T2DM. A nationwide network for diabetes service provision is important. Public facilities need one stop service provision for effective prevention and management of T2DM.

Keywords: Type 2 diabetes, Service delivery, Human resources, Health facility

DAY 2 : ORAL PRESENTATIONS

**Session 7 : Theme : Maternal &
Reproductive Health**

Chairs :

Prof. Dr. Abdur Rahman

Prof. Dr. Lochana Shreshtha



Community delay in decision making and transferring complicated mothers at facilities caused maternal deaths: a qualitative study in rural Bangladesh

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Abstract

Background: Community delay is one of the major determinants of maternal mortality. Community delays include delay in decision making to seek care and delay in reaching the appropriate facility during maternal complication. Bangladesh is facing challenges to overcome the factors to reduce the community delays.

Objective: The study was done to explore the factors influencing community delays lead to maternal deaths and the challenges to overcome the delays during maternal complications.

Methods: A qualitative study has been conducted in two districts of Bangladesh. Five Focus Group Discussions (FGDs) and twenty In-Depth Interviews (IDIs) were conducted in rural communities of the two districts.

Results: Community people perceived that the maternal death is due to fate but not for any delay in seeking care or attending a health facility. The cause of community delays is mainly due to dependency on unskilled provider, poverty, lack of knowledge and practices on birth preparedness, danger signs and importance of skilled care in obstetric complications. Community people are unaware of the communication and transport necessary to reach facility. They were not interested to go to facility apprehending more chance of operative delivery at facilities, ill behavior of health care providers and expensive treatment at facility. During complications, the community people first approached the traditional birth attendant (TBA) for treatment and then to village doctors (quacks) when failed with TBA. Lastly, having no alternative, they take decision to go a health facility when it is too late. After taking the decision, a good time required to manage money and vehicle for transportation. The transportation to a facility (the second delay) was further delayed due to poor quality of vehicle and also road and communication.

Conclusions: The study revealed that lack of awareness on danger signs of pregnancy, importance of early seeking skill care, going to facility in right time, and lack of preparedness for emergencies, money and transport had influenced causation of maternal death at community level. Early decision making capacity of rural people and availability of transportation to the facility would reduce maternal mortality at community.

Keywords: Community delay, Decision making, Transferring, Maternal deaths, Rural.



Maternal Death: Audit in a Tertiary Hospital

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Abstract

Objective: To conduct maternal death audit in a tertiary hospital in order to improve the quality of maternal health care.

Methods: This is a descriptive type cross sectional study done for 1 year from July 2008 to June 2009. Maternal deaths were reviewed and factors responsible for maternal death were identified and noted for taking intervention in this regard.

Results: During the study period total 63 maternal deaths recorded among 7560 deliveries. Almost 43% deceased mother were less than 25 years of age, 39.7% mothers died during their first pregnancy, 46% were delivered vaginally. Regarding time interval 33.3% of death occurred within six hours of admission to hospital. The main causes of death were eclampsia (46%), post-partum haemorrhage (17.5%), septic abortion (12.7%). One or more Institutional factors were identified and among them lack of obstetric ICU facility was related to 73% cases. Delayed or lack of blood transfusion was responsible for 46% cases and delayed attendance by senior doctors were related to 30% cases.

Conclusion: Substantial number of maternal death occurred at or <25 years of age. Eclampsia, hemorrhage, septic abortions along with substandard care were identified as the major cause of maternal death.

Key words: Maternal death, Audit.



Basal Body Temperature and Endometriosis

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Abstract

This investigation examined the association between pelvic endometriosis and altered basal body temperature (BBT). This study population consisted of infertile couples who have been diagnosed as having endometriosis. A significant association was found between the presence of pelvic of endometriosis and the appearance of a late decline in BBT during the early follicular phase of the menstrual cycle. A temperature 97.8 F on the first 3 days of the menses is associated with pelvic endometriosis. The findings of this study support the clinical diagnosis of endometriosis in infertile women. The basal body temperature chart analysis may be use full as a clinical adjunct when endometriosis is suspected.

Key Word : BBT (Basal Body Temperature), P(Pregnenolone), PF (Paritoneal fluid), PG (Prostaglandin)



Public Health Foundation Day 2017

Resettlement and Perinatal Experience of Immigrant Women: a study conducted among Bangladeshi immigrants living in New York City

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Abstract

Background: Immigration and subsequent resettlement comes with a variety of traumatic experiences for the newly arrived immigrants. It also affects their access to quality healthcare. For women and especially pregnant women, who need constant care and attention during pregnancy, any neglect or lapse in their caregiving can have long-term consequences on their physical/mental/emotional health and overall wellbeing. **Objective:** This study was conducted with a single overarching objective to find out the experience of the newly arrived immigrant women about the healthcare service delivery in the United States.

Methods: This study utilized qualitative methodological tradition which is a proven method of exploring social and human problems through its naturalistic inquiry to portray a “rich and thick” description of the scenario as it is happening ‘her and now’. Besides review of the existing literature and analysis of relevant documents data collection was done through one-on-one open-ended interviews conducted in the respondents’ own setting.

Results (Findings): Immigration has tremendous effect on the all six dimensions of health of women. Pregnancy makes it even more complicated for them. Acculturation has been a factor of receiving quality healthcare. Women have been slower than their male counterparts in the acculturation process and integrating with the mainstream culture. Lack of English language proficiency was identified as one of the major barriers for the South/Southeast Asian women’s access to quality healthcare. Caregivers’ lack of cultural sensitivity /tolerance toward different culture was another cause identified in the research. There were visible signs of discomfort among the caregivers as soon as they saw the immigrant women clad in their traditional attire (hijab, etc.).

Conclusion: Health educators, public health professional, local governments, community leaders should all come together to chalk out a long-term program to enhance the acculturation process and raise awareness about their rights, privileges and available resources concerning their access to quality healthcare. New courses must be designed and introduced in the curricula of healthcare providers at all levels of medical/health caregivers to enhance their ability to attend to people of different culture.

Keywords: Immigration, pregnancy, South-Southeast Asian Women.



Public Health Foundation Day 2017

Sexual and Reproductive Health Services Utilization by Adolescent Girls from Adolescent Friendly Sexual and Reproductive Health Centers in Sunsari District, Nepal

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Abstract

Background: Sunsari is one of the seventy-five districts of eastern Nepal. Out of 54 health facilities, 13 Adolescent Friendly Service Centers established in 2012 covering 26 percent (49,398) adolescent population (out of total 188034). Health service providers, health facility operation and management committee including Female Community Health Volunteers (FCHVs) got orientation to create enabling environment. Peer education program was continuously implemented since 2013.

Objective: The objective of this study was to assess the status of sexual and reproductive health services utilization by adolescents from adolescent friendly sexual and reproductive health centers in Sunsari district of Nepal.

Methods: This retrospective cross-sectional study was done from July 2015 to July 2016 by collecting Secondary data from 13 Adolescent Friendly Service Centers. A total of 17,814 adolescents who visited Service Centers for sexual and reproductive health services during the period were the study population. SRH service utilization data by adolescents were examined by using Excel Microsoft.

Results: Thirty six percent adolescents (17,814 out of 49398) visited in 13 Adolescent Friendly Service Centers for sexual and reproductive health services over the study period. Among them, 51 percent were female. Forty-three percent were early adolescents (10-14 years). Forty-seven percent adolescent girls were 10-14 years whereas 54 percent of 15-19 years. Out of total service utilization, 69 percent visited for treatment of SRH services following 11 percent for education and information and 7 percent for counseling services. Four and two percent visited for safe motherhood and Family Planning services respectively. Out of total visited for education and information, 72 percent received physical and mental health education following nutritional counseling, safe abortion, menstrual problems and sexual abuse. Among 284 family planning services, 20 percent utilized Emergency Contraceptive. Eighty-four percent adolescent girls among 169 received treatment of sexually transmitted infection. One percent utilized safe abortion service.

Conclusion: Adolescent Friendly Service Center is the first door open for adolescent girls to get confidential and reliable sexual and reproductive health information, education and treatment services in friendly environment.

Keywords: Adolescents, Friendly, Reproductive health, Services



A Novel approach to manage infertile couple at primary level care through transferring Medical information, Tuning Psychological state and counseling

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Abstract

Background: Care of Infertile couple is a cross cutting issue in a low resource setting like Bangladesh where health care resources are directed towards reducing fertility. However there is every scope to manage infertile couple with providing sufficient medical information, education and counseling in spite of treating them with medical assisted reproductive techniques from the outset.

Objective: The study objective was to evaluate the effectiveness of Consultant Couple Interactive (CCI) Session on Primary level Infertility Care.

Method & Procedure: This is descriptive type of cross section study use both quantitative and qualitative approaches conducted in Private Infertility Care Centre, Bheramara, Kushtia during Nov. 2012 to April 2013. Following inclusion and exclusion criteria a total 275 couples were studied including some Focus Group Discussion (FGD) sessions. Consultant Couple Interactive (CCI) in weekly basis interactive session held between service provider and the couple.

Results: Among the 275 sample respondent's couple, 61% had Primary and in remaining 39% secondary Infertility. All the respondents were exposed to CCI session but 67.6% were treated with only CCI. Out of the remaining, 19.3% needed ovulation inducing oral drug, 1.8% treated with metformin and the others required medical and surgical treatments in different combination according to need. Among all, 112 (40.7%) women were conceived and of them 64.3% conceived only following CCI. From FGD sessions it is revealed that most of the couple followed the advices provided during CCI session, majority were able to improve the relationship among partners and two third of the respondents could relieve 75% of environmental pressure exerted on them.

Conclusion: A management protocol including CCI can be constructed urgently to support the distressed couple and to provide an environment for large scale study on this issue.

Keywords: Infertile couple, Novel Approach, Consultant Couple Interactive, Primary level care



Public Health Foundation Day 2017

Knowledge and practice of women about maternal health in an underprivileged community of Bangladesh

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Abstract

Introduction: Every year around 5500 mothers are dying due to maternal complications in Bangladesh. A large number of deaths are still occurring in the marginalized community. Women living in the hard to reach teagardens areas in Moulvibazar district are struggling with early marriage, adolescent pregnancy and poor health seeking behaviour during pregnancy period.

Objective: The study was done to assess knowledge and practice of women on maternal health living in the teagarden community of Moulvibazar district, Bangladesh.

Methods: A cross sectional study was conducted in teagardens Moulvibazar districts. Twenty-five out of 92 gardens were selected purposively. A total of 529 mothers aged between 15-49 years who had a live birth between 1 March 2015 and 29 February 2016 were enrolled. Structured pretested questionnaire was used for face to face interview. Descriptive analysis was preformed using SPSS 21 for windows.

Results: The study revealed that over 56% of the women aged between 20-49 years had no knowledge about antenatal care (ANC), only 8% mothers were aware of recommended four ANC. Whereas, 51% of women aged between 15-19 years also unaware of ANC and only 6% mothers were aware of four ANC. About 77% of mothers had their last delivery at home, 35% of them performed by the garden health care provider (paramedics) and rest of them conducted by untrained birth attendant. Only around 18% of the mothers had their post-natal care in the last pregnancy and 44% don't have any ideas of maternal complications during pregnancy.

Conclusions: Specific intervention focusing improvement of knowledge and practices of women on maternal health issues can help to improve overall maternal health status of this marginalized group.

Keywords: Maternal health, teagarden community, Bangladesh

DAY 2 : ORAL PRESENTATIONS

Session 8 : Theme : Mental Health

Chairs :

Dr. Kamrun N Begum

Dr. Helal Uddin Ahmed



Transactional Analysis and Cure in Human Personality

Nasima Akter

Psychosocial Therapist, Trainer and Supervisor. Managing Director of Freedom Within, an organization works well-being, autonomy and empowerment.

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Abstract

Transactional analysis (TA) is a theory of personality and systematic psychotherapy for personal growth and change. TA is a theory of psychopathology which develops explanations of how we may continue to replay childhood strategies in grown-up life, even when these produce results that are self-defeating or painful. Eric Berne, the originator of Transactional Analysis (TA) theory stressed that the TA practitioner's job is to cure, not merely help him make progress.

According to Eric Bern CURE is to exercise new choice which must entails the movement to get out of childhood life plan where dysfunctional behaviors . Social Control, Symptomatic Relief, Transference Cure, Script Cure are the stages of CURE. CURE is for AUTONOMY which is relieving three capacities of a person; Awareness, Spontaneity and Intimacy.

TA works in psychotherapy, counseling, educational and organization arena. TA helps to make people aware about their personality pattern to make choice for new effective behaviors as well as thought to feel expected feeling. A study was conducted among persons and their supervisors those who are working in a national human right organization of Bangladesh to serve victims of violence conducted by family and different organ of state. This study was conducted after 2 - 3 years after receiving training, workshop and group sessions. Data were obtained in Questionnaire and by Interview.

The study shows the CHANGE among samples in CURE perspective mentioned by Dr. Eric Bern. This presentation will give a brief introduction about the role of Transactional Analysis for personal autonomy.

Keywords: Transactional Analysis, Cure, Human Personality



Eye Movement Desensitization and Reprocessing: an effective therapy for psychosocial Trauma

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Abstract

Background: A trauma is an experience of vital discrepancy between threatening factors of the situation and the individual's coping capacities. It is accompanied by feelings of helplessness and unprotected abandonment and thus creates a lasting disruption and disruption of the picture of self and the world. The state of complete helplessness and powerlessness is the essence of traumatic experience. In order to heal from psychological and emotional trauma, the individual will need to resolve the unpleasant feelings and memories which have been long avoided, discharge pent-up "fight-or-flight" energy, learn to regulate strong emotions, and rebuild the ability to trust other people. EMDR has evolved into a highly effective technique that incorporate elements from various other treatment modalities.

Methods: Literature review on EMDR from published research findings in journals, online publications, concerned website links have been used as source of information.

Results: Research studies show that EMDR is very effective in helping people to process emotionally painful and traumatic experiences. When used in conjunction with other therapy modalities, EMDR helps to move the client quickly from emotional distress to peaceful resolution of the issues or events involved. The positive, long-term results of EMDR therapy affect all levels of the client's well-being -- mental, emotional and physical, so that their responses return to normalcy and health. EMDR is the most thoroughly researched method ever used in the treatment of PTSD (Post-traumatic stress disorder) & trauma. Another study of subjects with post-traumatic stress revealed that the significant improvement they gained with the EMDR treatments were maintained for at least 15 months. To date, more than half a million people have benefited from EMDR therapy.

Conclusion: The short-term benefits of EMDR is simple and straightforward -- the immediate relief of emotional distress and the elimination of the debilitating effect of unresolved past trauma.

Keywords: Eye Movement Desensitization and Reprocessing), Psychosocial Trauma, Therapy.



Internet addiction and sleep quality among medical students: A population- Based cross sectional study in a private medical college of dhaka

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Abstract

Background: Sleep has an important role in humans' lives not only for general health but also for mental health and quality of life. Because of the ongoing growth of body systems, the importance of sleep is even much greater for children and adolescents. Adolescents' sleep habits vary with age, lifestyle issues and socio cultural influences. The computer and the internet are becoming major influences in adolescents' lives. Because of the dramatic increase in internet use among adolescents in recent years, some warning voices have been raised on the possible negative impacts of excessive internet use on health. The most important concern appears to be the risk of "internet addiction".

Methods: It was a population based cross sectional study done in Dhaka Community Medical College where respondents were regular medical students. The study period was approximately 30 days. Total 209 students participated in the study. The study involved collection of data in three stages. Stage one dealt with collection of basic socio-demographic data by semi structured question. Stage two dealt with collection of data for sleep quality by PSQI. Stage three dealt with collection of data for internet addiction by Orman's Internet Addiction Survey. Then statistical software R was used for further analysis and reporting.

Results: The data comprised 209 medical students aged 18-26 years of which 103 (49.2%) male and 106 (50.7%) female students. It appears that No internet addiction among 35.89% students, Moderate internet addiction among 44.50% students, and severe internet addiction among 19.62% students. By Pittsburg Sleep Quality Index showed good sleep quality among 32.54% students and poor sleep quality among 67.46% students. After adjusting the step wise regression model, It appears that 82.6% moderate internet addicts are less likely to have good sleep quality than non internet addicts (OR=0.17). 57.25% severe internet addicts are less likely to have good sleep quality than non internet addicts (OR=0.01). 20.22% smokers are less likely to have good sleep quality than non smokers (OR=0.45). Students involved in physical activities are 2.08 times more likely to have good sleep quality than that of no physical activity.

Conclusion: Findings of this study imply that Internet addiction have independent effect on sleep quality. This study provides a foundation for action toward addressing Internet addiction, which may help to reduce the prevalence and effects of poor sleep quality in medical students. Further research could be conducted to assess other factors which might influence sleep quality, especially behavioral and lifestyle factors.

Keywords: Internet Addiction, Sleep Quality, Mental Health, Lifestyle, PSQI, Orman's IAS.



Public Health Foundation Day 2017

Communication Skills of Children with Autism Spectrum Disorder

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Abstract

Background: Communication skills and social reciprocity deficits are a core feature of the autism spectrum disorders (ASD). So special education and treatment methods in the early ages are the keys to relief Autism Spectrum Disorder (ASD) symptoms.

Objective: To assess the level of communication skills of children with Autism Spectrum Disorder (ASD) who are attaining regular intervention program.

Methods: This cross sectional study was done on 101 children with autism. Students were selected by purposive sampling. Data were collected from parents of 101 school children of Autism Welfare Foundation (AWF) by face to face interview with a semi-structured questionnaire. The data were analyzed by using SPSS-22 and MS-Excel.

Results: Among 101 children with autism 58% had good verbal communication skills and they communicate with the family members at home for their personal needs, basic needs, amusement with toys or favorite things. Thirty nine percent children had good communication skills during playing (full and partial) with ball and other toys at home and school; rest (61%) had no skills due to impairments, limitations of activities and participation restriction, referring to the negative aspect of the interaction between an individual. About 59% children can communicate in social situations at satisfactory level. On the other hand, rest children of the (41%) students have non-satisfactory level of communication in social areas. Fifty eight percent children had good communication skills during performing their self-help activities including their daily living, eating habit, bowel movement, brushing teeth, taking shower and during dressing activities; 42% children had poor communication skills to perform their self-help activities. Here an important issue is that, they communicate by crying, by holding helper's hand or pushing helper.

Conclusion: It's very important to establish more communication based regular program which facilitate the communication milestone and assess and monitor the communication skills in every aspect of self- help activities, play and social sectors within home or a program for children with Autism Spectrum Disorder (ASD).

Keywords: Communication skills, Social communication, Self-help skills, Children, Autism spectrum disorder.



The Impact of Physical Exercise on Mental Health of Medical Students in Bangladesh

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Abstract

Background: Completing a degree in medicine has chronically been ranked as one of the most stressful majors in the world. As physical exercise is a panacea for many problems, its influence on the stressful lives of medical students was to be studied.

Objective: The objective of the study was to assess the impact of physical exercise on the incidence of depression amongst medical students.

Methods: This cross-sectional descriptive study was done on fifty medical students of Faridpur Medical College in the month of October, 2017. Purposive sampling was employed to obtain the information. Fifty medical students were approached to fill out a questionnaire. The inquisitions were about the respondents' age, sex, number of hours exercised in a week, and their level of depression was assessed using the Patient Health Questionnaire 9 [PHQ-9]. The data were collected on a questionnaire and analyzed using the SPSS software.

Results: It was seen that 64% of students spent at least two hours every week engaging in a form of physical exercise, with the most common form being brisk walking and playing football. About 14% of the students were assessed to suffer from mild to severe depression. The incidence was 6% in the group which exercised and 28% in the group that had less than 2 hours of exercise in a week.

Conclusion: Up to 2 hours of exercise greatly reduces the probability of a medical student to be depressed. This may be due to the endorphins released while exercising which act as natural antidepressants. It was seen that those who exercised, but less than 2 hours a week had a mental health status which was not significantly benefited compared those students who did not exercise at all.

Keywords: Depression, Exercise, Stress, Mental health



Predictive Psychiatric Disorders and Social Problems among Children and Adolescents Attending Pediatric Outpatient Department of a Tertiary care Hospital in Dhaka City

Chiro Islam Mallik, Rifat Binte Radwan

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Abstract

Background: The children and adolescents of Bangladesh are suffering psychiatric morbidity with the similar magnitude like other countries and is more with physical disorders.

Objectives: To delineates the proportion of emotional, conduct, hyperactivity and social difficulties among the children and adolescents attending pediatric outpatient department of a tertiary care hospital and to assess any possible association between socio-demographic and related clinical variables and the predictive psychiatric disorders.

Methods: This quantitative, cross-sectional and descriptive study was carried out from May 2016 to June 2016 in pediatric outpatient department of Bangabandhu Sheikh Mujib Medical University Hospital, Dhaka. Purposive sampling technique had been used and sample size was 100. Both male and female children aged 4-17 years were included. Structured questionnaire containing socio-demographic and other relevant clinical information and validated parent version of Bangla Questionnaire for screening psychopathology had been applied to the consented parents or caregivers of the respondents.

Results: Mean age of the subjects was 8.17(\pm 2.8) years. The male-female ratio was 1.3:1. Most of the subjects (60%) were in the primary level education. Urban-rural distributions were 64% and 36% respectively. Ninety Four percent subjects were Muslim and majority was from middle income group (58%). Any form of predictive psychiatric disorder was 12%. Among them 9% was ADHD, 5% emotional disorder and 5% was of behavioral disorder. Overall, 20% of the cases had peer problem which showed statistical with predictive psychiatric disorder ($p < 0.005$). The socio-demographic variables were not associated with the psychiatric disorder. Among the subjects, 66% and 34% had acute and chronic physical disorder respectively. Of the cases with predictive psychiatric disorder, acute and chronic physical disorder was 6% for each group. The difference was not significant ($p > 0.05$).

Conclusions: Our results support the other findings of similar studies and will help in applying suitable screening procedure for identification and subsequent management of psychiatric conditions.

Keywords: Psychiatric disorder, Peer Problem, Adolescents, Children.

DAY 2 : ORAL PRESENTATIONS

Session 9 : Theme : Oral & Dental Health

Chairs :

Prof. Dr. Zakir Hossain

Prof. Dr. Sharmeen Yasmeen



Sterilizing Practices of Dental instruments in some Dental Chambers in Dhaka City

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Abstract

Background: Sterilization techniques of instruments and other materials are important component in clinical practices of both medical and dental practitioners to ensure protection of the patients and the health care professionals from various infection diseases.

Objective: This study was conducted to assess the sterilization practices of instruments and other materials in some dental chambers in Dhaka city.

Method: This descriptive type of cross sectional was conducted in the private dental chambers of Dhaka city. A total of 150 dental surgeons were selected as respondents and they were selected by purposive sampling. Data were collected on a pretested, modified and semi-structured questionnaire by a face to face interview with the dental surgeons in their own dental chamber in Mirpur, Mohammadpur and Dhanmondi area. Data analysis was done by SPSS (Version 16).

Result: Among the findings mean age of the respondents was 33.33±6.8 years and male female ratio was almost equal. Among them 56.7% were graduate dental surgeons and 43.3% were post graduate. Majority of them (74.7%) was private practitioner. The important finding was that, in most of the chambers (69.3%) boiling water device was used as main sterilizing apparatus, whereas use of autoclave was (51.3%). About 74.5% were wrapping their instrument with sterile cloth after sterilization. About half of the respondents (50.7%) were using water and soap before patient examination and only 32.7% were using hexisol. Apron & gloves were used by 88% & 89% of the respondents respectively. Fifty two percent respondents were reusing the instrument by cleaning with water and soap only. Study also found that 53.5% respondents were using chemical agent for sterilization for endodontic instrument. Only 75.3% of the respondents were immunized against Hepatitis B virus. The study revealed a significant association between Post\Position of the respondents and presence of sterilizing instrument-autoclave (p-value= 0.001), and between degree of the respondents and number of the daily patient (p-value=0.000).

Conclusion: Sterilization process in dental practice is to be monitored and demands more attention & perfection to prevent contamination of infectious diseases.

Keywords: Sterilization, Dental Surgeons, Autoclave, Post graduation, Immunization



Awareness on Personal Hygiene of Cleaners Worker at General Hospital in Savar

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Abstract

Objective: The studies were to assess the level of knowledge of and practice of personal hygiene matter among the cleaners worker in General Hospital, Savar, Bangladesh.

Methods: A cross sectional study was conducted among a total of 100 cleaners worker both male and female of General Hospital, Savar from March 2017– April 2017. They were selected by purposive sampling. Data were collected by face to face interview. A pretested structured questionnaire and a check list were used for data collection. Data Analysis was done by SPSS 18.0. The research protocol was approved by The Research Committee (Local Ethical Committee).

Results: Findings of the study suggested that, 48% respondents cleaners worker didn't know how to wash the hands properly, 34% respondent did not used proper technique of method oral hygiene maintain paste & brush their teeth, 15% respondents were not interested to wear sandal/shoes during use of toilet, 3% respondents did not wash hands after defecation. It was found that male with primary level of education had better knowledge on personal hygiene and care of nail and Similar findings also observed among the primary level of educated female respondents. It was found that male with secondary educated had better practice to use shoe to go to toilet and hand wash and Similar founded also observed among the secondary educated female respondents.

Conclusions: Awareness on personal hygiene among the cleaners worker as well as there should be strong monitoring mechanism to practice hygiene specially wearing gloves, shoes and cap during work at hospital.

Keywords: Awareness, Personal Hygiene, Cleaners, Hand wash.



Nutritional Status of Under Five Children Suffering from Oral Health Problems Attending the Out Patient Department of Two Selected Dental College Hospitals in Dhaka City

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ABSTRACT

Background: Good nutrition is essential for good health and integrity of oral cavity. Poor nutrition affects the entire immune system and increase susceptibility to many diseases. Oral health and nutritional status are dependent on each other.

Objective: The objective of this study was to assess the nutritional status of under five children with oral health problems who attended two dental college hospitals in Dhaka city.

Methods: A cross-sectional study was conducted on 250 under five children attending dental OPD of two Dental College Hospitals in Dhaka city from January to December 2013. They were selected by purposive sampling and data were collected with a questionnaire and check list. Method of data collection was face to face interview, physical and clinical examination. Oral health status was examined and nutritional status was measured by anthropometric variables like height, weight & mid arm circumference (MAC). Heights of the children were taken in standing position with a measuring tape to the nearest centimeter and weights were recorded in kilograms. Nutritional status was assessed by anthropometric indicators like weight for age and height for age. Data analysis was done by SPSS program version 17.

Results: Majority of the children (40%) belongs to 31-42 month of age and mean age was 43.2 ± 1.01 months. Male and female ratio was equal. Sixty eight percent of the children had MAC within normal limit, while the rest 32% had mild and moderate malnutrition. Total 145 (87%) respondents out of 250 took chocolate three days per week. All of the children who attended the OPD of those dental colleges found caries in their teeth. Total 170 children did one time brush in a day. Thirty out of 170 respondents did brush before sleeping, 140 did not brush before sleeping, and 80 respondents did brushing for twice in a day. There was positive relationship between father's education and children's weight-for-age Z score' and 'height-for-age z score' ($P=0.04$, $P=0.04$ respectively). Also positive association between mother's education with children's weight-for-age z score', 'height-for-age z score' and ($P=0.002$, $P=0.008$ respectively).

Conclusion: Poor diet and nutrition increases the risk of poor health outcomes for children, such as tooth decay, dental caries, and chronic diseases. In order to improve the nutritional and oral health status of the children, their feeding habits and lifestyle modification by behavior change communication may bring positive outcome.

Keywords: Nutritional Status, Under five children, Oral health problems, Dental Carries.



Prevalence of dental caries and associated factors among primary school children in Dhaka city

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Abstract

Background: There is dearth of researches about the prevalence and associated factors of dental caries in the study area. Therefore, revealing the prevalence of dental caries and its associated factors will help in the development of successful oral health assessment and intervention strategies.

Objective: The purpose of this study was to assess the prevalence of dental caries and associated factors among the primary school students.

Methodology: A cross sectional study was conducted among a total of 400 students of class III to V of a selected school Dhaka Shiksha Board Laboratory School & College at Mirpur-1, Dhaka. Data were collected by face to face interview. For data collection pretested structured questionnaire was used and data were analyzed by the software SPSS, version 16.0.

Results: Of the total students, 65% students were below the age of 10 years. The study revealed that significantly ($p < 0.05$) a higher proportion (63%) of the students who liked sweets had carries in comparison to those who did not like sweets. Further it was found that the students who had no knowledge about carries they suffered significantly ($p < 0.05$) more (68%) from carries compared to them who had knowledge about the carries (32%). On the other hand, the occurrence of carries was found significantly ($p < 0.05$) high among the students who cleaned their teeth less frequently and clean the tooth before breakfast. Moreover, it was found that significantly ($p < 0.05$) a higher proportion of the students had low occurrence of carries who brushed their teeth twice daily particularly in between two meals.

Conclusion: The study also revealed that with increasing frequency of brushing teeth, there was a less development of dental caries. Oral health education should be given at school level.

Keywords: Dental caries, Prevalence, Primary school children, Teeth brush, Dhaka city



Pattern of dental problems and dental health care among female garment's worker at selected garment at dhaka city

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Abstract

Background: Garments industry is one of the leading industry in Bangladesh. The garment industry of Bangladesh nearly have 12 lacs labour and 85% of the labour force is women. In general, they face a various health hazards on a daily basis which affect both general & dental health. Due to lack of awareness, the dental problems are increasing day by day. If garments workers suffer from any dental problems, they will lose efficiency and productivity.

Objective: The present study has been undertaken to assess the pattern of dental problems and dental health care practice among female garments worker.

Methods: A descriptive cross sectional study was conducted to find out -pattern of dental problems and dental health care among 250 female garments workers at Dhaka city, Bangladesh. The study was conducted from December 2013 to April 2014. Samples were collected by Simple random sampling. Data were collected by face to face interview and clinical examination by using semi-structured questionnaire. Data were analyzed in SPSS 16.5 version and excel for windows.

Results: Among the respondents 50% were in age group 20 to 30 years and 70% had 3-6 family members. On examination, 63.2% respondents had dental caries, attrition/abrasion/erosion were 58%, calculus present 80% and 16% respondents had missing teeth. Among the respondents only 30% had the practice of tooth brushing twice in a day. Sixteen percent used finger for cleaning their teeth and 82% used tooth brush. Among their personal habits 76.5% were habituated with betel leaf. Among the respondents 72.4% had history of dental problems but only 12.7% visited dentist for treatment purpose.

Conclusion: About three quarters of the garment workers were having dental problems and only few visited dentists. Dental problems at young age is detrimental to physical health as a whole affecting the nutritional and psycho-social status. The dental health care along with other health care are to be included within the organizational health benefits for efficiency of the worker leading to more productivity of the industry.

Keywords: Dental problems, Female garment workers, Dhaka city.