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Keynote paper
Abstract

Emerging infectious diseases: Potential threat to global public health

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Abstract

Introduction: The problem of emerging infectious diseases has currently overshadowed the usual disease scenario of the globe. Mostly these are zoonotic in origin and threatened the survival of human societies who share ecosystems with rapidly evolving microbial organisms and their non-human hosts, vectors, and reservoirs. **Emerging Infectious diseases- global and in Bangladesh:** A number of new diseases evolved in the last couple of decades. Globally these are Ebola, Hepatitis C, E. coli O157, Borrelia burgdorferi, HIV AIDS and many more. In Bangladesh, HPAI A (H5N1), Anthrax, Nipah, Rabies and Japanese encephalitis are remarkable, 60% of those originate from animals. Factors responsible for these diseases are uncontrolled Population Growth, environmental change, uncontrolled urbanization, irrational land use, practices and increased movement of People, Animals, Commodities. **Public health response:** As almost all of them have zoonotic potential, these diseases must therefore be addressed through coordinated actions between animal and public health authorities. The rapid detection and response to an emerging disease is crucial, therefore a key element for all policies to be developed. **Conclusion:** Strengthening the surveillance system, rural network of veterinarians and epidemiologists, early detection, warning and response, improved diagnostic capabilities and other resources as well as the adoption of new legislations giving appropriate capacities to administrations will provide the basis for better prevention of emerging diseases.

Abstract

Infertility in Bangladesh perspective

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Abstract

Infertility is a serious socio-medical problem; about 10-12% couples are infertile in this part of globe. This number is increasing very fast due to change of socio-economic norm. Moreover, we have no adequate treatment facilities. Absence of awareness is another gloomy aspect for childless couples. In our society, mostly female partners are blamed though 60% male partners are responsible for infertility. Indigenous methods like pani pora, doa tabij, jhar fuk, is prevalent as treatment procedure mostly at the rural areas though it have no scientific value. The well to do families goes abroad for modern procedure for a child of own and nearly one thousand crores of taka is being drained out for this purpose alone every year from this country. On the other hand by spending only one hundred crore taka a hundred beaded modern hospital can be build for unfortunate childless couple to bring invaluable smile at the lives of parents.

Prevalence of the components of metabolic syndrome and its' determinants among higher secondary school level students in Dhaka district

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Abstract

Aims: Aim of the present study was to determine the prevalence and its' determinants of MetS components in adolescents in higher secondary schools. **Materials and methods:** Multistage sampling used to select 328 adolescents (Boys 48%, Girls 52%; age 17.41±1.48 years, M±SD). All higher secondary schools under 20 randomly selected Thana were included. Subjects aged between 15-20 years, having no chronic disease, not taking weight reducing drug or hormone treatment were asked to participate in a MetS screening program. Sociodemographic data, waist circumference (WC), blood pressure (BP) measurements were recorded and fasting blood sample for serum glucose and lipid determination. MetS diagnosed using IDF for children and adolescent, modified ATP III and WHO criteria. **Results:** Prevalence of MetS components found 13.7% in ↑TG according to IDF, ATP III and WHO followed by ↓HDL-C (70.1%) in IDF and ATP III and 36.9% in WHO definition. The prevalence of abdominal obesity was 8.5% in IDF and ATP III. The prevalence of ↑FBG (5%) was higher in boys compared to girls according IDF and ATP III though this prevalence is similar (0.6%) in both sex as per WHO. According to IDF, ATP III and WHO criteria, the prevalence of ↑TG was higher in boys (19%) compared to girls (9%). The prevalence of abdominal obesity was higher in girls (16%) compared to boys (5%) in IDF and ATP III. Among the diagnostic components of MetS 7.3% subjects had the combination of ↑WC with ↓HDL-C and 11.3% had ↑TG with ↓HDL-C using IDF cut-off value. Logistic regression analysis determined that according to IDF and ATP III female gender increased the risk of HDL-C (OR 3.51; 95% CI 1.93 to 6.37) and in WHO; current smoker among student (OR 0.40; 95% CI 0.17 to 0.92) and family history of hyperlipidemia (OR 2.59; 95% CI 1.34 to 5.01) enhanced it too. Female gender also increased the risk of abdominal obesity (OR 3.49; 95% CI 1.21 to 10.0) and W:H ratio (OR 3.56; 95% CI 1.69 to 7.49) in IDF, ATP III and WHO. **Conclusion:** In this group prevalence of MetS components is high. Among the MetS components ↑TG, ↓HDL-C are prevalent in three diagnostic criteria. Prevalence of abdominal obesity is high in IDF and ATP III. Following these three criteria, boys have ↑TG compared to girls and ↑FBG is also higher in boys in IDF and ATP III, abdominal obesity is more prevalent in girls compared to boys by using IDF and ATP III. Current smoking habit and family history of hyperlipidemia are the most important determinants for developing MetS components.

Abstract

Educating autistic children using multi-pronged approach

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Abstract

All autistic children are unique in their abilities and many of them can be trained to near normalcy if educated properly. There are many approaches/intervention for successful treatment program for autistic children and adolescents. Education is the most important service for a person with autism, either in the mainstream or in special schools. Since each child is unique, no one method or curriculum can be prescribed for all children with autism. There are many popular educational interventions being practiced like the ABA, TEACCH, More Than Words, PECS etc along with sensory integration therapy and speech language therapy. Education for autistic children should be comprehensive and multi factorial where teachers, parents and professionals can work together to suit individual needs. Autism Welfare Foundation (AWF) is working to educate and train autistic children and adolescents since 4th April 2004. AWF adopts multi-pronged approach, some of which are TEACCH, ABA, PECS, More than words to provide holistic education. These methods provide custom-made approach for each child and these methods have been particularly successful in enhancing communication and social skills, academic skills, play skills and various vocational skills. AWF had been particularly successful in training children to perform daily chores, increase communication abilities and social skills, and also accomplish many endeavors. Some of them excels in art, music etc and fetched many a laurels. Education has been particularly important in bringing forth the latent talents of these children. The intention of this presentation has been to show that proper education and training can work wonders for autistic children and help them to lead near normal lives. This presentation has also shown with case studies how proper education has been able to bring forth the latent talents in children. It needs to be emphasized again that proper education and training is important to enable autistic children lead normal lives and help these children to excel in their desired fields. AWF is striving towards this end.

Use of drugs and treatment cost in acute watery diarrhoea of under-2 children attending a tertiary hospital of Bogra

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Abstract

Background: In Bangladesh, diarrhoea is an important contributing factor in childhood mortality which can be easily prevented by applying simple means like Oral rehydration salts (ORS). Many ineffective and unnecessary potentially toxic drugs or antibiotics are widely prescribed by non-registered practitioners (NRP) as it is easily obtained without prescription. **Objective:** This study was an attempt to explore the fact regarding the treatment pattern of Acute Watery Diarrhoea (AWD) among the under-2 children and needless expenditure of the family on NRP. **Method:** A cross-sectional study on 660 children age ranging 1 month to under-2 year attending at Mohammad Ali hospital (MAH), Bogra of Bangladesh with AWD during the period of January through March, 2009 were selected. **Results:** A total of 660 under-2 children with the complaints of AWD were selected for the study. The mean age (mean±SD) of the attended child was 11.75±5.16 months. About 80% of the respondents (mothers of under-2 child) were below SSC level in terms of educational status while about 9% were illiterate. About 85% of the respondent seek treatment from non-registered practitioners (NRP) while registered doctors contributed only among 12% which was found statistically significant in comparison to their family income ($p < 0.001$). Azythromycin was the most prescribed drugs (22.4%) followed by ciprofloxacin (21.7%) and erythromycin (15.9%) which was mostly prescribed by non-registered doctors ($p < 0.05$). The families had to spend a mean cost of Tk. 209/- which was spend significantly high on NRP ($p < 0.05$) as a direct treatment cost. Misuse of antibiotics was observed from NRP and a handsome amount was spending on them. **Conclusion:** To reduce unnecessary expenditure and ensure proper treatment of AWD, it was recommended to aware the community on quality management at government facility by registered doctors.

Abstract

Clinical presentation and sensitivity pattern of *Salmonella typhi* to different antimicrobials among urban children suffering from typhoid fever

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Abstract

Background: Typhoid fever is a life threatening, feco-orally transmitted infectious disease caused by the bacterium *Salmonella enterica* serotype typhi. It is a common endemic disease in Bangladesh. In children typhoid fever may present as a nonspecific illness makes the clinical diagnosis of typhoid fever difficult. **Objectives:** To facilitate the early diagnosis of Typhoid Fever in children caused by *Salmonella typhi* and to help to apply an early effective antibiotic therapy against it. **Methods:** A prospective observational study was performed with 50 (fifty) admitted patients of pediatric age group (up to 15 years) of both sexes with typhoid fever caused by *Salmonella typhi* (confirmed by blood culture) into the Department of Pediatrics, Bangladesh Medical College Hospital (BMCH) hailing from urban area of Bangladesh. **Results:** There were 32 male and 18 female patients (M:F=1.8:1) with a mean age of 5.17±2.63 years. Fever was the main presenting feature in all cases (100.0%) and mean duration of fever was 9.18±5.15 days at the time of hospitalization. Constipation was found in only 12.0% of cases in comparison to diarrhoea (42.0%). Relative bradycardia was not a feature. Blood culture was performed in all cases and mostly within 7 days of duration (60.0%). Ninety eight percent of isolated organism was sensitive to Ceftriaxone. The mean Time-to-defervescence was 4.80±1.89 days. Mean duration of hospital stay was 9.30±2.10 days. In outcome, all the cases were clinically cured and there was no mortality in this study. **Conclusion:** Typhoid fever can occur at any age in the pediatric population. Its clinical presentation is different than that of adult. MDR-ST strains are high in urban area and only best response to expensive parenteral antibiotics like Ceftriaxone. We recommend early diagnosis; proper supportive care and rational use of antibiotics with adequate dose and duration can avoid the morbidity, mortality and relapse of typhoid fever. Along with ensuring safe water supply, proper sanitation and availability of safe foods this study's observation is to incorporate the vaccines against typhoid in the Expanded Program on Immunization (EPI). The study also urges to develop a national guideline in near future for effective control of typhoid fever in urban pediatric population.

Key Words: Typhoid fever, Enteric fever, *Salmonella typhi*.

The Pattern, Influencing factors and Magnitude of tobacco consumption in rural areas of Bangladesh

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Abstract

Background: Consumption of tobacco is a major risk factor for mortality since it is associated with lung cancer, cardiovascular diseases and chronic respiratory diseases. However, the distribution of tobacco consumption is not uniform. The gaps in knowledge of tobacco consumption need to be examined to see which people and why they are most likely to consume tobacco which is crucial for designing policies and interventions aimed at achieving overall reductions in tobacco consumption at the population level. **Objective:** The objective of this study was to describe the pattern and prevalence of tobacco consumption in the rural areas of Bangladesh and to identify some major influencing factors for tobacco consumption. **Design:** This cross sectional study was conducted in a rural community of Sreepur Thana during the month of November to December 2011. 550 respondents were considered of both sexes aged 15 years and above. The data was obtained through a face-to-face interview of the household members through open and close-ended questionnaire. **Results:** The estimated sample size was 550 out of which 426 were found to be consumers of tobacco. Majority of the study population were male (68.4%). Illiteracy was found in 34.7% of the respondents. Most of them had some type of small business (38.2%) and a monthly expenditure between Taka 3,001-6,000 in 44% of the households. Prevalence of tobacco users was estimated to be 77.5%. Of them, 59% were smokers and 41% chewers. The most common form of smoking and chewing was cigarette (69%) and *jarda* (94.6%) respectively. Friends were found to be as influencing factor in 47% cases whereas family in 28% cases. A large percentage of the respondents (94%) knew about the adverse health effects caused by consumption of tobacco. **Conclusion:** The magnitude found was quite alarming compared to some previous data. It indicates that disease burden will rise in the future. Nevertheless, tobacco consumption is amongst the largest preventable causes of death today. In depth studies are required to find out the causes related to tobacco consumption and the health hazards present among the consumers.

Keywords: Tobacco, Prevalence, Forms, Smoking, Chewing, Influencing Factors, Knowledge.

Abstract

Child Abuse- An undermined trauma in society

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Abstract

It is the physical, sexual or emotional mistreatment of children. There are 4 categories of Child abuse are as Neglect, Physical, Sexual and Psychosocial abuse. Neglect can be physical, emotional, educational or medical. Physical abuse involves striking, kicking, burning, bruising, pulling hairs or ears, choking. It may be shaking of a child or oxygen deprivation and even transmission of toxins to a child through its mother. Sexual abuse is when a child is pressurized by an adult to engage in sexual activities in various ways. Out of all the possible forms of abuse, emotional abuse is the hardest to define including Name-calling, Ridicule, Degradation, Destruction of personal belongings, Torture or destruction of a pet, Inappropriate or excessive demands, Withholding communication and Routine labeling or humiliation. Regarding prevalence Neglected comprises 54% followed by Physical (22%), Sexual (8%) and emotional (4%). Child abuse fatalities are widely recognized as being under-counted. Child abuse is a complex phenomenon with multiple causes. Effects of abuse on victimized children are detrimental and they suffer from both short term and long term behavioral and physical problems. A number of policies and programs have to be put into place to try to better understand and to prevent child abuse fatalities along with different cognitive behavioral and psychotherapy for parent and affected children. Quick suspicion on different injuries resulting from physical or sexual abuse will not only help to initiate immediate treatment of injured children but also will facilitate to find out the actual reason of physical injury and promote rehabilitation of both parties. Social awareness, political commitment, eradication of poverty, proper education and implementation of existing laws to uphold the children's' right can reduce the incidence of this under focused Non Accidental Trauma in our society and can provide a solid foundation to build up our next generation.

Keywords: Child Abuse, Non Accidental Trauma, Abuse.

Dissemination of evidence based knowledge on metabolic syndrome and nutrition: From research to practice

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Abstract

Background: Local context of knowledge, attitude and practice (KAP) is of central importance to reduce the public health disasters. Thus designing of proper strategies to improve health in a population requires sufficient data which are scanty in Bangladesh. **Objective:** This project was designed as an attempt to start a solution by BIRDEM and WDF to build up a database and disseminate research and evidence based knowledge regarding metabolic syndromes (MS), from local perspective of Bangladeshi people and to create awareness and specially a significant impact on health professionals and policy makers. **Method:** We requested each and every single institute/university/organization over the whole country to share primary/secondary - chemical, biological and socio-cultural data from research on MS or nutrition relevant to Bangladeshi race and society authorized by them. Data on about 1000 food items and 12000 socioeconomic related KAP were sum-upped, compiled and edited for database. Then a substantial volume of culturally sensitive health promotional/educational tools enriched by accumulated findings was developed, piloted and improvised which include: Publication and circulation of a number of health articles, special issues of a magazine, a calendar, 2 categories of Leaflets and 1 Alphabet book; Distribution of 'Clay-models'; dispersion of Mini-display-boards; training of health professionals; special classes for patients; 'Series of Dissemination Seminars' for all; launching of website: www.pushti.org; and broadcast of minidocudramas through satellite channels. **Results:** The follow-up study says after promotional activities the KAP level is significantly improved. Benefitted people: 3000,000 Patients and Relatives, 1200 Doctors, 600 Paramedics, 800 Nurses, 100 Dieticians/Educators, 60000,000 Mass people. **Conclusion:** Allied persons are now giving the second thoughts to design, run or implement new endeavor focusing the key findings of this project.

Abstract

Suicidal tendency among the medical students of different medical colleges of Bangladesh

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Abstract

Introduction: In Bangladesh, about 11.6% of the total adolescents have suicidal tendency and the rate is high in case of medical students. The aim of the study was to find out the percentage of suicidal attempts or plans among the medical students of Bangladesh in order to find out the relation between the suicidal tendency and normal daily life or mental condition of a medical student. **Methodology:** A descriptive type of cross sectional study was done in 11 medical colleges of Bangladesh from 1st January 2012 to 1st September 2012. Students of different year were selected by simple random sampling method. 221 responses from Bangladeshi, co-operative, mentally sound and non-pregnant (in case of female) medical students were recorded by a semi-structured pretested questionnaire and by online survey. The data was analyzed by SPSS version 20.00. **Results:** Among the 221 respondents, 39 (17.6%) of them had attempted or planned to suicide. 87.2% thinks that sadness and disappointment are regular part of life. 56.45% of them were not satisfied with their last academic result. 54.8% of them were parasomniac. 74.4% and 69.2% have good relationship with their parents and siblings respectively. 56.4% of them informed that they have lost interest to do the things that they once enjoyed, 20.5% of them showed avoiding tendency for everyone and 56.4% of them have a tendency to avoid some selective persons or groups. 53.8% among them loses control over them and good judgments. It was observed that 46.2%, 61.6% of total population show low self-esteem and low self-confidence respectively. 61.6%, 56.4% has high self-blaming and fatigability respectively. The suicidal tendency among the 1st, 2nd, 3rd, 4th, 5th, 6th year is 24.3%, 17.4%, 11.6%, 12.3%, 15.8%, and 44.4% respectively. 66.7% of them have come to their study medicine willingly. **Conclusion:** The study shows that the suicidal tendency among the medical student of different medical colleges of Bangladesh is high in rate, occupying the tendency among the 6th year students is alarming. The tendency is more in higher grade students than the lower grade students. Majority of them are not satisfied with their last academic result. Though their relationship with other people is normal, majority of them show low self-esteem, low self-confidence, self-blaming tendency and fatigability.

Keywords: Suicide, Parasomnia, Parasuicide.

A comparative study on traditional and skill based health education on hand washing among secondary school children in Bangladesh

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Abstract

Background: Educational intervention through Traditional Health Education (THE) is the usual practice for promoting hygiene among people. In recent years a relatively demanding and costly technique, termed as Skill Based Health Education (SBHE), is being generally advocated as a superior method. Comparative studies between these two methods are relatively rare particularly in developing countries. The present study was undertaken to test the hypothesis that SBHE is a better method for promoting hand washing in school going children as compared to the THE. **Materials & Methods:** Under a comparative interventional design two groups of children [n=119 for THE and n=109 for SBHE], collected from classes VI and VII of two schools in Dhaka city, were given education on hand washing on a single day by using the respective methods. The study was conducted over a period of 6 months. The components of education included necessity, appropriate timing, materials and techniques of hand washing. An overall knowledge score was also 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 THE (Baseline vs Final, M±SD, 36±8 vs 74±14, p<0.001) and SBHE (37±9 vs 81±12, p<0.001) groups. SBHE showed a significantly higher knowledge score (p<0.001) as compared to THE at the final time point. Analysis on individual components showed a result similar to the overall knowledge score. **Conclusion:** SBHE seems to be superior to THE as a short-term interventional tool for promoting health education on hand washing among secondary school children. The difference between the two methods on longer term intervention remains to be seen.

Abstract

RDRS Bangladesh and its health program

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Abstract

Since inception in 1972, RDRS has been striving for the empowerment of the rural poor and disadvantaged people with special focus on women and children. RDRS's core comprehensive programme focuses on social empowerment, women's rights, health, education, agriculture and the environment and disaster-preparedness. The organization also works with char (sandbar) and adibashi community to improve their livelihoods. RDRS is also providing support to vulnerable women, sex workers and working children. RDRS operates microfinance programme to assist the extreme marginal poor for their income generation. RDRS continues its efforts to ensure better health in its working areas through provision of preventive and curative health care measures as well as by organizing local and national level advocacy campaign to sensitize the service providers. It works closely with the government and other development organizations. RDRS is running 153 antenatal clinics and maternity centre in 19 Upazilas under 6 districts for advice, medical supplies and support from community skill birth attendants and trained Rural Birth Attendants where pregnant women are supported by nurses and professional doctors. RDRS provides messages on reproductive health rights, health education and nutritional advice and inform the clients about family planning options. To ensure the services at government facilities at the union level, RDRS is strengthening the capacity of UP's Education, Health and Family Planning Standing Committee and local CBOs called Federations (poor people's organization). RDRS promotes awareness activities for HIV/AIDS among the possible risky population including students, rickshaw puller and pregnant women. The Syedpur Drop-in Centre continues to support the floating sex worker during day time and provide them health education and essential medicines. RDRS is providing TB and Leprosy services at Lalmonirhat and Kurigram district through 24 clinics and several outreach sputum collection & smearing centres. RDRS provides eye care support through 18 eye clinics and one sophisticated operating theatre in Lalmonirhat while eye camp takes place in remote areas. Besides, RDRS is also extending support to the Visually Impaired Children. Water, Sanitation and Hygiene (WaSH) Program and advocacy Initiatives are also an integral part of health program.

Average weight gain during pregnancy among women attending the Obstetrics Department of a selected tertiary level hospital of Dhaka City

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Abstract

Background: While weight gain during pregnancy is regarded as of prime importance, this study aimed to assess the average pregnancy-related weight gain and pattern of meal taken during pregnancy. It not only affects maternal health but is closely associated with the health of the unborn child. **Methods:** This cross sectional analytic study was conducted among the pregnant mothers admitted in ward and attending in out-patient Obstetric department of a tertiary Medical College Hospital, Dhaka between the periods of November 2012 to April 2013. Non-probability purposive sampling was used to select 113 respondents; each between the ages of 18 and 49 years; who have completed 270 days of gestation. Outcome measures were weight gain from pre-pregnancy to 36 weeks of gestation. Data were collected in a semi structured questionnaire and analyzed by SPSS v 16.5. **Results:** In the current study, the mean age of the respondents was 26.55±2.40 years. Among the respondents, 71.7% had a BMI of less than 18.5 (underweight), 22.1% had 18.5 to 20 (normal) and rest few were overweight. Among the total respondents, 73.5% took their food at home regularly, 14.2% took frequently outside and 12.4% occasionally. About 89.4% reported that they do not take any snacks in between meals and about 64.6% were found showing reluctance to take more food during pregnancy. Mean weight before 12 weeks of pregnancy was 52.18±6.655 kg and at term it was 58.50±6.970 kg. The mean difference was statistically significant ($p < 0.05$). Among the respondents, 8.8% gained weight less than 3 kg, 19.5% gained weight between 3-5 kg, 35.4% gained between 5-7 kg and 36.3% over 7 kg. Mean weight gain during pregnancy was 6.3274±2.29 kg. **Conclusion:** A poor weight gain during pregnancy complicates pregnancy and fetal outcome. The majority of women in this study do not know the recommended pregnancy-related weight gain and the ideal way of achieving it. The advices women received from health professionals during antenatal check-up could be improved in desire to weight gain in pregnancy optimally.

Keywords: Average weight gain, Pregnancy, Meal taken during pregnancy.

Abstract

Lion Mukhlesur Rahman Foundation (LMRF): Its success stories

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Abstract

There are millions of children in Bangladesh who are suffering from congenital and aquired physical problems that can be solved through timely, effective and inexpensive treatment or surgeries. Regardless of the severity, children afflicted with various physial deformities like Facial clefts, clubfoot etc., face a life of disability with all its limitations. Left neglected, all these deformities may lead them to lifelong disability, potential unproductivity and eventually significant poverty. Lion Mukhlesur Rahman Foundation (LMRF) is a children's charity organization, envision a society where children with inborn or acquired disability are detected, cured and rehabilitated early so that they can live a full, productive life. LMRF established a full free health service through her following projects for these unfortunate children of Bangladesh. **Cure Cleft:** Cleft lip & palate is a major problem in developing countries like Bangladesh where every year 4000 babies are born with this deformity and most of them remain neglected. LMRF, through this project, working restless to reverse their doomed life with a simple corrective surgery. So far, with help of our dedicated partners especially Smile Train, our skilled Plastic Surgeons brought smile to 4200+ cleft patients. **Zero Clubfoot:** Clubfoot is a crippling deformity affecting 5000 children every year in Bangladesh. Zero Clubfoot project of LMRF has been playing a very crucial role in setting up a system of early detection and treatment of Clubfoot in Chittagong Division. By the skilled hands of our devoted Surgeons and Physiotherapists, 1500+ children relieved from this curse so far. **Awareness buildup:** We conduct regular training program to Govt. health workers specially vaccination & family planning staffs, meet with Govt. doctors and arrange FGD with local NGO workers, beneficiary parents to aware about clefts & clubfoot problem. Publicity by regular poster sticking, leaflet, brochure newsletter distribution is a part of our continued awareness campaign. **Conclusion:** People are pivotal resource of our country and today's children are our future. These underprevelaged children born with physical disabilities bear equal potential to be a bright future for the country, if they've given a chance. LMRF has started a journey of hope to bring miracle to the lives of these needy children and shape up the future of Bangladesh.

Needle stick and sharp object Injuries among nurses in Bangladesh Medical College Hospital

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Abstract

Background: Needle stick and sharp object injury is a major occupational hazard faced by nurses, being one of the main ways for transmitting blood borne pathogens. **Objective:** To assess the frequency of needle stick and sharp object injury and the circumstances surrounding the most recent injury among nurses of Bangladesh Medical College. **Methods:** A cross-sectional descriptive study, using purposive sampling technique was conducted among nurses in Bangladesh Medical College. A pretested, self-administered, semi-structured questionnaire designed to seek information about needle stick and sharp object injuries in the past one year (April 2011 to April 2012) was circulated among the nurses across the various departments of the hospital. Nurses who had been working for less than one year were excluded from the study. The questionnaire was completed by 141 nurses. The survey inquired about the frequency of injuries, type of device, activity during the injury, place of injury, whether the injury involved a high risk patient (hepatitis B, hepatitis C and HIV/AIDS), immunization against hepatitis B, and whether the injury was reported or not. Data entry and analysis was done in SPSS version 17. **Results:** Needle stick and sharp object injury was sustained at least once by 46% (n=65) of nurses in the last one year. The total number of episodes was 130 (range 1 to 10 episodes). The main causal device was syringe needle 79% (n=53). The commonest clinical activity during injury was injection pushing 30% (n=22), followed by re-capping of needle 23% (n=17) and removal of needle 16% (n=12). The highest incidence of injury occurred in the surgery ward 23% (n=15) and medicine ward 22% (n=14). Most of the nurses did not know if the injury had involved a high risk patient; five episodes involving a patient with hepatitis B were reported. Almost one third of the nurses (32%, n=45) had not completed 3 doses of hepatitis B vaccination. Most of the injuries (58% n=38) were found to occur during the beginning of the shift and majority of the injuries (85% n=55) were not reported. **Conclusion:** There is a high occurrence of needle stick and sharp object injury among the nurses in this hospital and most of the cases are not reported. Appropriate preventive measures and reporting strategies are needed for occupational safety of the nurses.

Keywords: Needle stick injury, blood borne pathogens, occupational safety, Nurses, Bangladesh.

Abstract

Role of cardiac rehabilitation program on quality of life of patient after cardiac surgery

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Abstract

Objective: The objective of the study was to determine the Role of Cardiac Rehabilitation Program on quality of life of patient after Cardiac Surgery. **Methods:** A Quasi Experimental study was designed to determine the role of CRP on patients after cardiac surgery. Sample was selected from United Hospital of Dhaka by using convenient sampling method and according to selection criteria. A precise semi structured questionnaire was used for data collection. Data was collected twice from every participant: first time, before application of CRP and after application of CRP. Total 30 patients were participated in this study. Among all variables two variables were quantitative, one was pain status and another one was Respirometer volume. **Results:** It was found that pain status improved significantly (p value 0.0001) in post test after receiving CRP. In case of Respirometer volume, significant change was also observed (p value 0.0001). Other functional variables like, Patient's standing & balance ability before and after application of CRP it was found that during pretest 63.3% patient needed full support and no patient was independent. But on post test about 60% patients were independent, 40% patient needed mild support and there was no patient who needed full support. In case of Patient's ability of active walking before and after application of CRP it was found that during pretest 63.3% patient needed full support and no patient was independent. But on post test about 53.3% patients were independent, 43.3% patient needed mild support and there was no patient needed full support. In case of, Patient ability of active bed mobility (Side changing, Sitting from lying) Patient's ability of active stair climbing there were gross improvement found in post test. By Chi Square test it was found that Female showed less improvement than Male patients. Age and education level had some impact on improvement but that is not statistically significant. (p value 0.106). **Conclusion:** In conclusion it can be said that CRP plays a positive impact on the quality of life of patient after cardiac surgery.

Experience from community based childhood burn prevention program in Bangladesh: Implication for low resource setting

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Abstract

A comprehensive community-based burn prevention framework was developed for rural Bangladesh taking into consideration the magnitude, consequences of burns, risk factors of childhood burn, health seeking behavior of parents after a burn injury of a child and the perception of community people. This paper explains the comprehensive framework of the childhood burn prevention program and describes its acceptability, feasibility and sustainability. A number of methodologies were adopted in developing the framework, such as, (i) building up relevant information on childhood burn and prevention methods, (ii) arranging workshops and consultation meetings with experts and related stakeholders and (iii) piloting components of the framework on a small scale. Lack of supervision of the children, hazardous environment at home and the low level awareness about childhood burn and other injuries were identified as the major attributes of childhood burn in Bangladesh. To address these factors “Triple S” strategies were identified for the prevention framework. These strategies are: Safe environment, supervision and skill development. According to these strategies, home safety, community crèche, school safety, formation of community groups and general awareness activities were identified as the different components of the childhood burn prevention framework in rural Bangladesh. The framework was piloted in a small scale to explore its feasibility acceptability and sustainability. The framework was found to be acceptable by the community. It is also expected to be feasible and sustainable as very low cost and locally available technology and resources were utilized in the framework.

Abstract

Bangladesh perspective on antimicrobial resistance: Medical professionals and media

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Abstract

Background: In Bangladesh, half of the bacteria developed resistance against the common antimicrobials because of irrational and indiscriminate use of these agents. Different contributors are accused for such situation. The loss of effectiveness of this invaluable armamentarium may revert civilization to the ‘pre-antibiotic era’. World Health Day 2011 focused on “Antimicrobial resistance and its global spread”. During that period, an attempt was taken to overview the factors related to antimicrobial resistance in Bangladesh situation. **Objective:** To assess status of different factors related to addressing the issue of antimicrobial resistance among medical professionals and in media in Bangladesh. **Method:** Perception of physicians about reason of antimicrobial prescribing was explored by conducting questionnaire survey among prescribers of two public and two private medical institutions. Understanding about antimicrobial related issues and antimicrobial consumption behavior was studied by questionnaire survey among students of the same institutions. Coverage of antimicrobial resistance and related issues in media was assessed by structured review of two Bangla and one English newspaper. **Result:** Majority of prescribers (about 70%) mentioned diagnostic uncertainty and emergence of resistant microbes as the main causes for increase in antimicrobial prescribing. More than half (51.87%) of respondent physicians agreed with the statement, “Physicians prescribe antimicrobial more than they actually need”. Among 5th year medical students, only two-third, i.e., 71.27%, 67.25% and 57.94% responded correctly about ‘clinical use’, ‘theory on resistance’ and ‘antimicrobial spectrum’ respectively. Three-fourth (75.96%) took antimicrobials in accordance to prescription, of which 80.2% completed the course. Antimicrobial resistance related issues received less than 2.02 percent of weightage in different newspapers and there was no feature or news on antimicrobial and resistance. **Conclusion:** Physicians prescribe antimicrobial more than the actual need. The medical student’s knowledge about antimicrobial and resistance was inadequate and their consumption behavior reflects that. Media is not attaching required importance on the issue. Comprehensive intervention with inclusion of different stakeholders would be required to address this complicated and multifaceted problem. The integration can only be achieved if the issue is considered as a ‘public health agenda’ rather than an academic issue.

Keywords: Antimicrobial resistance, Medical professionals, Media

Sexual behavior of rickshaw pullers in Gazipur district of Bangladesh

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Abstract

Background: Rickshaw pullers constitute a large segment of the marginalized urban poor with limited access to reproductive health information and services. They are also frequently involved in risky sexual behaviors and are considered a bridging population for sexually transmitted infections (STIs) and HIV. **Objective:** This descriptive cross sectional study was conducted among Rickshaw pullers of Gazipur districts from April 2009 –September 2009 to assess their sexual behavior. **Methods:** A total 100 Rickshaw pullers were selected purposively and a pre-tested semi structured questionnaire was for data collection. **Results:** Most of the respondents were from the age group 20-30yrs (53%) with 60% of them having primary level education. Majority of the respondents were married (59.0%). Most of them (59%) were performing their sexual act with their wives, 38.0% were doing masturbation, 1% with sex partner and another 2% in other ways. Half of the respondents (50%) also had out going sexual habit for meeting their sexual needs like brothel (92%), home-based sex workers (3%) others (5%). Among the 100 respondents 64% had premarital sexual relations. Among all, 77% of the respondents did not use a condom. The cause for not using condom was dissatisfaction (57%), cost (11%), allergy (9%) unavailability (5%) and others (18%). Among the 100 of respondent, 68% of respondents did not have any access to information on safe sexual behavior. About 65% respondents agreed that STD and HIV/AIDS is caused by unsafe sexual behavior. Also 43% of respondents told condom was the best method for safe sexual behavior. In this study use of condoms were found to be significantly associated with age and education of the respondents ($P < 0.05$). **Conclusion:** It was revealed from the study that although the rickshaw pullers had some knowledge on safe sex but their sexual behavior was risky and they had limited access to information on sexual behavior.

Key words: Rickshaw pullers, sexual behavior, condom, STD and HIV/AIDS, access to information

Abstract

Health and social status of elderly people in rural Bangladesh and their care seeking behavior during illness

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Abstract

Introduction: Population ageing is one of humanity's greatest triumphs in the twentieth century. For the world as a whole, the elderly will grow from 6.9% of the population in 2000 to a projected 19.3% in 2050 which will be a greatest challenges for the 21st century and so on. **Objective:** The purpose of the study were to determine the health and social status of elderly population in the rural community of Bangladesh and to understand the pattern of their illness and care seeking behavior. **Method:** Study was conducted in randomly selected four unions from four old divisions of Bangladesh among 400 elderly people of which 235 were male and 165 female. Information were collected through structured questionnaire by face to face interview on socio-demography characteristics, episodes of acute illness, existing chronic diseases, and care-seeking behavior including family support during illness and their involvement in their family activities. **Results:** Average ages of the respondents were 72.63 SD=9.23 years for male and 70.10 SD=8.89 years for female. Forty six percent male and 70.9 percent of female were illiterate. Number of children were significantly higher among the older old ($\chi^2=10.195$; P -value= <0.001). At the time of interview 68.5 percent male 66.7 percent female were found to suffer from some sorts of illness. Major types of disabilities were difficult in walking visual disturbance, physical weakness, pain legs and hands, palpitation, loin pain, pain in vertebra, abdominal pain, uncontrolled urine. The poorer found to suffer more compared to richer ones ($\chi^2=5.189$; P -value= <0.02 for male; $\chi^2=7.149$; P -value= <0.001). Major place of seeking treatment were Government hospitals and private clinics. Majority were satisfied with their family nursing ($\chi^2=3.151$; P -value= <0.07 for male and $\chi^2=5.065$; P -value= 0.02 for female). **Conclusion:** As the demographic transition number of older people is rapidly increasing we have to prepare for this challenge in under developed situation.

Key words: Elderly people, Rural Bangladesh, disabilities, Care seeking behavior.

Nipah fatality continued! Are we aware?

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Abstract

Nipah virus is an emerging zoonotic virus which was first identified in a place called Kampung Sungai Nipah of Malaysia in 1999. In Bangladesh, Nipah virus first struck in Meherpur in 2001. Ingestion of contaminated date palm sap is responsible for transmitting Nipah virus infection to human. Fruit bats of *Pteropus giganteus* are the natural hosts that are widely distributed across the country. It is generally spreads between December and April at the time of collecting juice from date palm tree. For last few years, human to human transmission has also been observed. This deadly virus causes encephalitis or respiratory diseases to human creating a public health issue every year. In a densely populated country like Bangladesh, Nipah virus spread very rapidly through respiratory route before any kind of anticipation. In the last 14 years following the first Nipah outbreak in Malaysia, no further human case has been reported from Malaysia and also none from Siligury, India after 2001 as well. But Nipah infection in human are recurrently reported from Bangladesh every year with high mortality and this year, it already reached as high as 87%. This difference in human case incidence may be due to inadequate health awareness among the local population to avoid drinking raw date palm sap. Inadequate health care infrastructure and intensive care support in Bangladesh may be the cause of high mortality rate. Lack of awareness and adopting standard precaution, physician and health care givers are more susceptible to this deadly virus. This discussion shows that, we have failed to prevent the incidence and reduce the case fatality so far compared to neighboring countries. This highlights the need for accelerated surveillance, outbreak detection, quick response and rapid laboratory diagnostic facilities. Mass awareness program, special training and workshop should be undertaken to create awareness, early case detection, patient management and infection control practice in hospital. At national level, mass media coverage should be intensified to combat any further situation in future.

Abstract

The Influence of community factors on infant mortality in perspective of rural Bangladesh

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Abstract

Objective: The study was conducted to investigate the effects of community factors on Infant mortality in perspective of rural Bangladesh. **Methods:** It was a descriptive type of cross-sectional study. The survey was a stratified two-stage cluster sample consisting of 61 primary sampling units in different villages of selected upazilas. The data were collected by structured questionnaire by face to face interview with the respondents (628) who lost their infant during 10 years preceding the survey. Analysis was done to assess the association of individual and community characteristics with infant mortality by using chi-square test. To identify the influence of community factors and the risk factors of infant mortality, logistic regression model was used for their simplicity and biologically meaningful interpretation of coefficients existed in it. **Results:** Among the community factors, better communication such as availability of modern transports and paved road connected to the thana head-quarters and membership status of NGO are significantly ($p < 0.001$) associated with infant mortality. Immunization coverage by outreach centers were also significantly ($p < 0.05$) associated. The community characteristics such as distance to medical facilities, weekly-markets, pharmacy and availability of MBBS doctors were significantly associated with infant mortality ($p < 0.010$). The study revealed that infants whose mothers were illiterate, had unhygienic toilet facility, no electric connection to their residence and no access to mass media experienced higher ($p < 0.01$) mortality rate. Logistic regression revealed that access to health facilities; modern transport and income generation activities had negative association with infant mortality. It is evident from the findings that community with modern transport facilities has 27% less likely to infant mortality than other communities. Mothers with access to mass media have 16% less likelihood to infant mortality than their counterpart and using hygienic toilet had lowered risks of mortality. **Conclusion:** Identification of the community factors followed by appropriate intervention can greatly influence in reduction of infant mortality in our country.

Key Words: Community factors, Infant mortality.

Association of visceral and subcutaneous fat with the components of metabolic syndrome in Bangladeshi healthy subjects

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Abstract

Aims: This study was undertaken to assess the association of visceral and subcutaneous abdominal fat with the different components of metabolic syndrome in Bangladeshi healthy subjects. **Methods:** Fifty healthy Bangladeshi subjects (25 males and 25 females) with body mass index (BMI) 18.5 to 27 kg/m² were included in this study. The visceral fat (VF) and subcutaneous fat (SF) were quantified by a multislice computed tomography (CT). Insulin resistance was assessed by HOMA-Sigma Software. Data were analyzed with univariate and multivariate techniques. **Results:** The mean (\pm SD) age of the study subjects was 31 \pm 7 (M: 31.5 \pm 8; F: 30.5 \pm 6) and VF (cm²) were 100 \pm 9 and 95 \pm 11 in males and females respectively. The mean (\pm SD) values of SF (cm²) were 131 \pm 14 in males and 132 \pm 18 in females. Body fat mass (BFM) (%) was 25.3 \pm 5.6 and 30.5 \pm 4.9 in male and female groups respectively. Mean FBG (mmol/l) of the study subjects was 5.1 \pm 0.5 (where, M: 5.1 \pm 0.6; F: 5.1 \pm 0.5). On Pearson's correlation analysis, VF was found to be positively correlated ($p < 0.05$) with BMI, BFM, Systolic blood pressure (SBP), FBG, Fasting serum Insulin, Insulin resistance (IR) and Total Cholesterol (TC) in both male and female groups. Waist circumference (WC), Triglyceride (TG), LDL-cholesterol was also found to be positively correlated ($p < 0.05$) with VF only in females. On multiple linear regression analyses when the effect of age, family history of MetS and physical activity were adjusted, VF was found to be associated with BMI (M: $p = 0.001$; F: $p = 0.021$), IR (M: $p = 0.041$; F: $p = 0.013$) and FBG (M: $p = 0.009$; F: $p = 0.002$) in both male and female subjects. However, TC ($p = 0.014$), LDL-cholesterol ($p = 0.022$) and SBP ($p = 0.016$) showed association with VF only in female. On the other hand, subcutaneous abdominal fat area was positively correlated ($p < 0.05$) with TC, LDL-c, BFM, BMI and FBG in female only. However, on multiple linear regression analyses when the effect of age, family history of MetS and physical activity were adjusted, these associations disappeared. **Conclusion:** Visceral fat, but the subcutaneous abdominal fat was not associated with the components of insulin resistance and metabolic syndrome in healthy Bangladeshi subjects and this association is prominent in females.

Abstract

Teaching learning sessions in the medical colleges of Dhaka city: To what extent they benefit our pupil

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Abstract

Background and objective: This study is carried out to analyze the situation of the large group teaching scenario in the medical colleges in Dhaka city. There is a vast amount of lecture hours allocated as method of teaching in the undergraduate medical curriculum. Large group teaching method has its wide variety of usefulness as well as numerous shortcomings. Educationalists must ensure the best utilization of the lecture time in order to improve student learning and achieve the higher-order objectives. This study was conducted with the objective to study quality of current practices of large group teaching in selected medical colleges. **Methods:** This cross sectional study was conducted at different government and non-government medical colleges in the year 2007 adopting the convenient sampling using a checklist filled up by participatory observation of 36 lecture classes. **Results:** The study revealed that the characteristics of the effective lecture are not visible in the present lecture classes in the medical colleges. Although due to time constraints the study was performed in a limited basis. More than thirty percent of teachers did not attend any teaching methodology course. The medical colleges are lack in instructional media. More than twenty percent of teachers did not mention objectives at the beginning of the teaching session in the lecture. During informal interview some teachers expressed that mentioning objective at the beginning is waste of time. Some teacher's opinion is that these methodologies of western culture do not fit in the context of Bangladesh due to limited resources. More than eleven percent teachers did not use any visual aids and more than half of the teachers used visuals that could not be read from the last bench. Fifty percent of the medical teachers do not summarize their lecture at the end. About seventeen percent of classes the students only opened their mouth to respond to class attendance call. **Conclusion:** The study recommended that all the medical teachers should attend the teaching methodology course as a must. There should be regular visit to the medical colleges lecture galleries informally by proper authority to ensure the required facility of lecture classes. Student' evaluation, lectures' self-rating may really trigger the teachers to identify their deficiencies, and can make real difference. Institute should ensure that teachers are given support necessary for them to function effectively. Essential audio-visual support should be provided to the teachers for effective delivery of lecture.

Biodegradable, eco-friendly, safe and tidy toilet [BEST toilet]

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Abstract

BEST toilet – this invention is related to {public health} system of sewage using simple container below wagons and the fecal matter in these containers undergo biological degradation process and recycles used water from toilets making the railway drainage. At present there is no specific fecal matter sanitizing unit in Indian railways which has led to great threat to health of people coming in contact with railways, bad odor and fecal matter spread on railway junctions is very unfavorable and odd to see hampering heritage of railways in India. The system has basic advantage that it prevents transfer of hazardous infections from railway sewage system to people coming in contact with it. In addition it provides a better option of fertilizers and biogas. The system being economically cheap is feasible as it is an important requirement so as to maintain proper hygiene in railways. The system strives to increase the heritage of Indian railways so as to make it clean means of transport. The above said system of reservoirs, main containers together with soakpit, polysorb absorber and mushroom does not cause any kind of damage or difficulty in any form. It works in conjunction with present architecture of railways.

Abstract

Reproductive health practice of rural mothers: Learning experience

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Abstract

Background: Reproductive health is an emerging issue in Bangladesh as well as in the world. This was a survey conducted among rural women of reproductive age group as a part of academic exposure of the MBBS students in community medicine during Residential Field Site Training (RFST) program. It was aimed to determine antenatal & natal services, nature of complications during last delivery, and health problems related to reproductive tract. The study also highlighted the views of the students in various aspects of the program during development & implementation as well. **Material and Methods:** This was a descriptive cross sectional study carried among 534 married women of reproductive age during 22nd to 28th December 2012 in different villages of Dhamrai Upazila, Dhaka. The selection of sample was purposive in nature. Data were collected by a pre-tested questionnaire through face to face interview. The student's feedback was collected through likert 5 points scale. All those data were analyzed manually and by using computer. **Results:** The study revealed that the mean age of respondents was 29±7.3 years. Most of them were house-wives 86%. Among the respondents 58% were found having 2-4 children. The mean age of the respondents at first issue was 19±3.5 years. The study shows that 75.6% respondents received antenatal visit. The study reveals that 79% respondents received TT immunization. Home delivery was found 52% of which it was 30% by skilled and 22% by untrained birth attendant. Reproductive health problems were common as abortion 21%, PPH 22% and obstructed labor 28% respectively. However, related reproductive tract health problems faced by the women include menstrual disturbance 52%, leucorrhoea 41% and urinary tract infections 35%. Most of the students were agreed on the various statements on duration of RFST program to about 61.7% respondents. Opportunities in dealing health problems in holistic views were found undecided to about 11.4% respondents too. Moreover 91.5% agreed on the opportunities of practicing multidimensional skills through this RFST program. **Conclusion:** Reproductive health practice was still worse among the rural women in the study area. Therefore, the study recommends formulation and implementation of effective reproductive health care service to improve health status of the rural women. The student's feedback will help future planning and formulating an effective RFST program towards better academic exercise.

Key words: Reproductive health, Practices, Rural mothers, RFST program, Bangladesh.

Mental health status among medical students: A priority research area

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Abstract

Background: Medical education across the globe is perceived as being inherently stressful and as a result poor mental health or depression can occur. Therefore it becomes imperative to study the overall mental health status and particularly prevalence of depression among medical students as these constitute neglected, less financed, under diagnosed & under treated public health problems in Bangladesh. **Objective:** The study was undertaken with the general objective to assess the overall mental health status of medical students in Bangladesh in the perspective of the magnitude of depression, suicidal tendency and sleeping pattern. **Methods and Materials:** This Cross sectional study was done in two medical colleges of Dhaka where one was government and one private medical college in between July 2013 to December 2013 involving 227 medical students from 1st to 5th year MBBS. By convenient sampling technique data were collected by a pretested structured interviewer-administered questionnaire and analysis was done by SPSS 18.0 version. The questionnaire was formed by using the standard and validated PHQ-9 to assess MH status and ICD-10 criteria of depression to identify different types of depression among the respondents. **Results:** Among 221 students included in the study, poor mental health status and depression was found in 33.5% and 38.9% of subjects where in 3.6%, 14.5%, 20.8% medical students were with severe, moderate and mild degree of depression respectively. About 44.8% respondents had adequate sleep in a normal day where rest is either insomniac or hypersomniac; 17.6% medical students had suicidal tendency or attempted suicide at least for once. There was statistically significant association between poor mental health status with age group of less than 22 years and initial academic study year (1st to 3rd of MBBS). **Conclusion:** The results revealed a clear picture of poor mental health status, prevalence of depression in junior medical students marginally more in males & associated with academic year of the study. So, medical students should be given care and support in order to promote resilience and personal fulfillment, and for enhancement of professionalism and patient care.

Announcement

Announcement

Celebration of
**PUBLIC HEALTH
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DAY** on December 08, 2013

Date:
7-8 December 2013

Venue:
Sasakawa Auditorium, icddr, b

Deadline for Registration:
October 30, 2013

Abstract Submission (Oral and Poster) by:
October 15, 2013

Registration Fee:
Taka 1500 (for local participants)
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Coordinators:
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Predisposing factors of scabies among the patients attending Skin & VD Outdoor, DMCH

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Abstract

Background: Skin disease is a major health problem of our country. In Bangladesh, 30-40% of the people are suffering from skin diseases of which 80% are suffering from scabies and pyogenic infection of skin. **Objective:** To identify the patients having scabies and to find out the predisposing factors of scabies among them. **Method:** This cross sectional type of descriptive study was carried to find out the predisposing factors of scabies among the patients attending Skin and VD Outdoor Patient Department of Dhaka Medical Hospital. The study was carried out from August 2009 to November 2009. In this regard 213 respondents were interviewed randomly by using pre-tested questionnaire. **Result:** The study reveals that the mean age of the respondents was 13.16 with a standard deviation of ± 5.38 years and majority (36.15%) were in the age group of 1-5 years. 54% respondents were male and 46% were female. Majority of them were educated in the group of class I to V (38%). Regarding occupation (excluding 66 respondents of under 5 years) 29.1% were students. 50.73% had family members comprised of 4 to 6. Majority (38.50%) belonged to lower middle class (income 3001-6000 taka/month). Among the respondents maximum (54.93%) were infected by family members. About 77.94% respondents used fomites of affected persons and only 16% used the clothes of infected persons. 66% respondents had the habit of sharing beds of infected persons. **Conclusion:** Emphasis should be given on personal hygiene and life style of people as well as educating them about the mode of transmission of scabies and its preventive measures. Large scale hospital and community based study regarding scabies is also recommended.

Abstract

Infant feeding recommendations of mothers living with HIV: A questionnaire survey among medical students of Bangladesh

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Abstract

Background: For most babies, breastfeeding is without question the best way to be fed, but unfortunately breastfeeding can also transmit HIV. If no antiretroviral drugs are being taken, breastfeeding for two or more years can double the risk of the baby becoming infected to around 40 percent whereas by taking antiretroviral along with regular breast feeding reduces the rate of transmission to half. For HIV infected women in low and middle-income countries, unlike from high income countries WHO declare that mother should exclusively breastfeed their infants for the first few months and with appropriate complementary foods thereafter and continue breastfeeding for the first 12 months of life. **Objective:** To assess the level of knowledge about the feeding recommendations of infant among mothers living with HIV in medical students of different phases in Bangladesh. **Methodology:** Data were obtained using questionnaire which consisted of 25 questions. A total of 52 first Year, 45 third year & 74 fifth year medical students took part in this online survey. We compared level of knowledge regarding the issue & replacement feeding between these 3 groups according to year and also of students who have clinical exposure & who have not. The study was conducted from 28th March'12 to 15th April'12 in SHSMC & MMC. **Result:** About 98.5% first year, 91.4% third year and 82.8% fifth year students were unknown about infant feeding recommendations of HIV-infected mother with gradual improvement of theoretical knowledge where most of them mentioned lack in curriculum as the reason. Only 2 of them were fully acknowledged with the fact after attending a workshop. **Conclusion:** Thirty four million people of the world are now living with HIV where 16.8 million are women. In Bangladesh 1900 women are infected with HIV of which many of them are giving birth of babies each year. So, knowledge about proper feeding recommendations of infant of HIV infected mother is highly needed among the medical students of our country as future physicians. Further research regarding this issue should be done.

Study on changing pattern of contraceptive use in a rural community of Bangladesh

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Abstract

Introduction: Bangladesh, with the highest population density in the world, has achieved a remarkable success with a Contraceptive Prevalence Rate (CPR) of 55.8%. The purpose of this study was chiefly to determine the prevalence and pattern of contraceptive use among the people of reproductive age of a selective area and to note any change in the pattern of contraceptive use which will in turn reflect the awareness of the people and status of recurrent pregnancies. **Materials and Methods:** This was a cross-sectional type of descriptive study in selective villages of Keranigonj Upazilla of Dhaka district involving only married males and females of reproductive age in that area. Sample size was 1206. The data was collected by face to face interview using a semi-structured questionnaire by the purposive sampling method by 5 people including me. **Results:** The number of contraceptive user is increasing as it was observed in the study that number of children of most of the families were between 0-2 (57.96%), 3-5(37.81%) and >5(4.23%). Most (58.95%) use combined oral pill. Among women who had discontinued pill use but wanted no more children, 72% were using no method of contraception at the time of this survey, 10% were using injectable, 8% irrational methods, 7% condom and 4% other method. Majority of them (70%) changed due to side effects (9.12%). The change was mostly from OCP to injectable (7.96%) and to ligation method (9.20%) and only 6.47% of them changed from injectable to OCP. **Conclusion:** The present study conclude that about 9% of female who used contraceptive method changed the pattern of contraceptive method due to side effects of the product.

Key word: OCP, Recurrent pregnancy, Women, rural community, Bangladesh.

Abstract

Utilization of maternal health care services by the rural people of Modhukhali Upazilla, Faridpur

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Abstract

Maternal health refers to the health of women during pregnancy, childbirth and the postpartum period. While motherhood is often a positive and fulfilling experience, for too many women it is associated with suffering, ill-health and even death. In many developing countries, complications of pregnancy and childbirth are the leading causes of death among women of reproductive age. A woman dies from complications from childbirth approximately every minute. The present study was a cross sectional type of descriptive study carried out with the objective of exploring utilization of maternal health care services by the rural people at Modhukhali upazilla, Faridpur, Bangladesh. A preformed interview schedule was used to collect data from purposively selected sample of 546 respondents. It was revealed from the study that majority of the mothers (78.2%) had received ANC. Most of the respondents who received more than 3 ANC visit (89.5%). It was found that majority of mothers (50.45%) received ANC from UHC and a good proportion of rural mothers received ANC from family welfare centers and satellite clinic. Majority of the mothers (54.8%) delivered their last baby at home. It was revealed that people preferred hospital delivery in the study area. About family planning, the survey showed that 68.5% of the couples were found practicing family planning methods currently. Most of them preferred oral pill (55.9%) and injectable one (17.9%). About TT vaccination, most of the respondents (93%) had received TT vaccine and among them 61% completed the doses. The findings of the survey indicate that utilization of maternal health care services was higher among the educated mothers. MCH program should be strengthened to improve the health status of the community particularly for the mother and children in rural area. There is also need for supervision and monitoring of the maternal health care services throughout the country. EOC program should be implemented to every Upazilla Health Complex as early as possible. It is also necessary that a well-designed community based research should be carried out in rural areas to collect accurate information about the utilization of maternal health care services in rural Bangladesh.

A review on global picture of oral cancer: Has the story changed over time?

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Abstract

Oral cancer is the sixth most common cancer of the world. Though commonly known as a cancer of developing countries, oral cancer have high incidence in many developed countries also. Through analysis of review publications, national cancer registries of different countries, national cancer statistics of Canada, SEER reviews in USA, WHO reports and Globocan statistics we tried to find out the descriptive epidemiological picture of oral cancer worldwide. In this review paper we focused on ASIR, ASMR, PYLL, percent survival, APC and recent trends in incidence and prevalence of oral cancer. Our analysis showed that coming to 2000s both ASMR and ASIR is still high in south Asia. In different parts of India both ASMR and ASIR is higher than 15 per 100000. Bangladesh, Bhutan, Pakistan and Sri Lanka showed a high incidence and mortality rate where Japan, South Korea, China and Singapore showed a low rate. France showed highest ASIR worldwide (42.3 per 100000 according to 2004 report), where recent trends show significant rise. In countries like UK, Norway and Sweden the rate was low where Switzerland, Portugal Germany showed an intermediate rate with downward trend. South America and Africa showed ASIR and ASMR lower than 10 per 100000, however, there was lack of reliability of data. USA and Canada both showed an incidence rate more than 10 per 100000 in different parts of USA and Canada. The USA rate increased over time where the Canadian rate was almost static. In Oceania, the ASIR was really low, nevertheless, New South Wales, Australia showed a high ASIR of 16 per 100000. ASMR was very low in developed countries like USA, Australia, Canada, UK where south Asian and African developing countries showed a high ASMR. Recent trends showed increased incidence in developed countries and decreasing rate in many developing countries. For most of the countries, 5 year survival rate is around 50% with exception for North America and Australia (>60%). Survival is lower when metastasized and highest for lip cancer (90%). Many developed countries recently showing high ASIR, whereas ASMR was low. For the developing countries both ASIR and ASMR are very high which indicates towards the gap in screening, management and health promotion measures.

Abstract

Worm infestation among under-five children in a selected slum of Dhaka city

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Abstract

Background: Intestinal worm infections in humans is a silent epidemic that destroys the health, well being and learning potential of millions of children in many developing countries today. **Objective:** To ascertain the status of worm infestation among under five children of a selected slum in Dhaka city. **Methods:** A cross – sectional study was conducted in a selected slum in Dhaka city in Bangladesh among a total 111 randomly selected under five children. **Results:** Among 111 under-five children 51.4% were male and 88.3% had family size within five members. About 43.2% had monthly family income within BDT 8000 and 56.8% had more than BDT 8000. By literacy status, 91.9% had primary level of education and rest 8.1% had secondary level of education. Among the total respondents, majorities 65.7% were house servant, rest 29.7% were house wife. The current study observed that among the studied families, 85.6% use non sanitary latrine among the children, 56.8% defecate in open places. By the type of material used for hand washing, 46.8% of respondents use soap, 35.1% use ash/soil, 17.1% use only water. Prevalence of intestine helminthiasis in this current study was 34% and *Ascaris lumbricoides* (73.3%), *Entamoeba histolytica* (24.4%), *Giardia lamblia* (2.2%) were identified from the stool samples. Ova was found in stool of those respondents who use non-sanitary toilet during defecation among them thirty percent had ova in stool ($p < 0.05$). It should be mentioned that around three fourth of the respondents took antihelminthics drug prior to the study conduction. **Conclusion:** Emphasis on use sanitary latrine, proper hand washing practice and use of sandal during defecation in health promotion campaign and further study with large sample size covering large area is recommended.

Key Words: Worm infestation, Under five children, Slum, Bangladesh.

Advancing Health information System: Experience of implementing DHIS2 in four countries

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Abstract

Background: District Health Information System version 2 (DHIS2) is an open access software which can generally be described as a “tool for collection, validation, analysis, and presentation of aggregate statistical data”, which has already been adapted by more than 30 countries across the world. To ensure availability of a complete set of timely, reliable and representative data on core health, population and nutrition indicators, HPNSDP 2011-2016 put much emphasis on strengthening the Health information system of Bangladesh. As a part of this strategic plan, Directorate General of Health Services is planning to introduce web-based MIS from community to facility level using DHIS2 platform. **Objective:** The goal of this research is to undertake a systematic review of literature describing experiences of 4 countries which have already implemented DHIS2 and to identify the factors challenging that process which policy maker must consider while implementing the system in Bangladesh. **Methodology:** Peer reviewed articles were searched using search strings on PUBMED. Health informatics journals were searched for articles not yet indexed in the databases. Then, using an ancestry approach, the references of articles were scanned to mine for further relevant articles. After a rigorous screening process 10 unique articles met our inclusion and exclusion criteria which focus on socio-technical factors complicated the implementation process. **Results:** The implementation of DHIS 2 in Malawi, Ghana & Uganda identified slow internet connection, frequent interruption of power supply, lack of human competences, tacit resistance to change, interruption during online data entry process and lack of policy framework as the major challenges for successful implementation. Lack of Political commitment, proper project planning & financing and lack of understanding were identified as major challenges in Srilanka. **Conclusion:** Many of the factors that challenged the implementation process of DHIS2 in different countries have wider implication and may provide context for Bangladesh. So our policy makers should seriously examine the ways to overcome these challenges to make this implementation process a success.

Keywords: DHIS2, Routine Health Information System.

Abstract

Prevalence of long acting and permanent methods of contraception and factors for non-use among married woman of reproductive age in rural Bangladesh

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Abstract

Background: Although Bangladesh has often been cited as one of the most successful examples of popularizing family planning services but in order to achieve replacement level fertility by 2016, our country needs to shift its concentration from short term methods to long acting & permanent methods of contraception (LAPM). Projection of some recent studies have revealed that in order to achieve replacement level fertility by 2016, users of LAPM would need to be increased by 8-9 million. **Objective:** The objective of this study was to assess the prevalence and factors hindering the use of LAPM among married women of reproductive age group in Rural Bangladesh. **Methods:** A descriptive type of cross sectional survey was conducted from February 2012 to June 2012 in Sreepur upazilla under Gazipur district. Total 265 women were interviewed with a structured questionnaire. **Result:** Among 265 respondents, 165 (62.3%) were using any form of contraceptive methods while rest 100 (37.7%) were not using any. The prevalence of use of LAPM was only 15.75%. The majority of LAPM users use injectables (65.38%) followed by female sterilization (15.38%), implants (11.54%) and IUD (7.69%). Major causes for not accepting LAPM are fear of operation (~25%), fear of decreased physical ability (23%), familial pressure (15%), religious barrier (~15%), total lack of knowledge about LAPM (10%), non availability of service (7%) and using of other methods (5%). About 90% of the women heard about LAPM. There is little variation in contraceptive use by women's educational level and wealth quintile. **Conclusion:** Initiatives focusing on identifying and alleviating factors hinder from practicing of LAPMs are very few in numbers. Findings of this study have implication for policy makers to seriously examine the ways to increase the use of long acting and permanent method of contraception.

Keywords: Family Planning Program, Long acting and permanent method, Bangladesh.

Estimating magnitude of dental Injuries among the school children in Bangladesh: Methodological issues in low-income country setting

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Abstract

Introduction and Rationale: A dental injury is one of the leading causes of unintentional injuries among children. Unfortunately it is an unrecognized and neglected dental health problem in a country like Bangladesh. This is mainly due to lack of data on the magnitude, risk factors and interventions on this important child health problem. There is no preventive measure to address dental injury problem in Bangladesh. Policy makers and professionals could be sensitized to take necessary step towards prevention of dental injuries though presenting the magnitude of dental injury problem. **Objectives:** This study has been conducted to depict the picture of dental injury problem among school children of Bangladesh and also to determine the methodological issues to estimate the problem. **Material and Methods:** A cross-sectional survey has been conducted among 1168 school children in both rural and urban areas of Bangladesh. Cluster sampling method has been used to identify the schools and all the students of the selected schools were recruited for the survey. A group of trained dentists collected information through face to face interview and physical examination using a semi-structured questionnaire. Methodological issues were identified though comparing the data with similar studies and through discussion with injury epidemiologists. **Results:** The life-time incidence of dental injuries among school children in Bangladesh was 84.4% (95% CI 81.6, 86.8). Mean number of injuries experienced by school children was 2.9. The incidence of dental injuries was higher among boys than girls (85.8% vs 81.4). The methodological issues identified in estimating dental injuries among school children are: ascertainment of cases, severity of injuries, calculation of annual incidence, recall bias, representativeness of estimated information. **Conclusions:** Dental injuries are very common among school children. Boys are more vulnerable to dental injuries. A number of methodological issues identified for conducting a useful survey on dental injuries.

Key words: Dental Injuries, School children, Methodological issues, Bangladesh.

Abstract

Are the medical students sleeping less?

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Abstract

Introduction: Amount of sleep is an important indicator of mental status of human being. Adequate sleep (AS: adequate sleep is defined as 6–8 hours per night regularly) is a critical factor for assessing depression status of a person. The aim of the study was to find out the sleeping habit of medical students and some of the effects of their sleeping habit on their day to day life. **Materials and Method:** A descriptive type of cross sectional study was done on 221 co-operative, mentally sound, non-pregnant students of 11 medical colleges of Bangladesh from 1st January 2012 to 1st September 2012 by simple random sampling method, recorded by a semi-structured pretested questionnaire and by online survey and analyzed by SPSS version 20.00. **Result:** Among the 221 respondents, 44.8% have adequate sleep in a normal working day. 29.8% have inadequate sleep and 25.3% have excess sleep in a day. But during exam days 79.2% have inadequate sleep. 46.2% have difficulty in sleeping at night. 29.4% feel tired and exhausted most of the time. Those who have excessive or inadequate sleep 59.7% have difficulties on remembering or concentrating on things. The leisure time of 24.3% of 1st year medical students includes sleeping. Those who sleep below 4 hours and 4-6 hours, 79.3% and 70% of them think that sadness and disappointment are regular part of life respectively. Those who sleep below 4 hours in a day, 50% of them experienced delusion or hallucination and 50% of them ever attempted or made a plan to suicide. **Discussion:** The study shows that most of the medical students do not have adequate sleep in a day and those who have inappropriate sleep faced problems such as lack of concentration, difficulty in remembering things, experiencing delusion or hallucination, feeling disappointed, increased suicidal tendency etc. During the whole exam period (which near about 1 month irrespective to Bangladesh) they have inadequate sleep and they have described sleeping as their favorite time-pass though their relationship between people does not affect much on their sleeping habit.

Key Word: Insomnia, Hypersomnia, Hallucination, Medical students, Bangladesh.

Attitudes of Medical Students towards HIV/AIDS patient: A structured qualitative approach

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Abstract

Background: AIDS is a disease which is not only threatening because of its severity but also serious because of the social problems created from lack of proper knowledge about the virus, its transmission procure and the disease process. Although Bangladesh continues to be a low (.1%) prevalence area of HIV, it is surrounded by high prevalence countries. Due to lack of proper knowledge, negative attitudes towards HIV-infected & AIDS patients are very common among general people and medical students are also not different from them. Furthermore, medical students are also included in the high risk group for HIV/AIDS. In this study we tried to assess the differences in attitudes among three phases (entrance phase, pre clinical phase, and clinical phase) of medical students from five medical colleges towards HIV-infected & AIDS patients according to duration of medical education with theoretical knowledge and clinical exposure. The attitude of medical students has been chosen as the field of this study because attitude of medical students towards the HIV affected influences behaviour which will affect the quality of health care delivery in the long run. **Methods:** This was a cross-sectional descriptive study with simple random sampling conducted between August'11 to October'11. A sample of 605 medical students from 1st to 5th year from 5 different medical colleges of Dhaka, Bangladesh was collected and divided into three phases- entrance phase (1st year), pre-clinical year (3rd & 4th year) and clinical year (5th year). The structured questionnaire was consisted of 25 questions assessing stigmatization attitudes of the students towards AIDS patients. **Result:** According to analysis, 73% students of entrance phase, 61% students of preclinical phase and 52% students of clinical phase were unwilling to provide treatment to HIV-infected and AIDS patients. Surprisingly, female students (83%) were mostly negative towards giving treatment to the affected. Only 2% of the students were clinically exposed with HIV-infected and AIDS patients & they were positive in attitude towards them. **Conclusion:** Negative attitude was observed among all three phases of students. Theoretical knowledge seemed to have little effect in changing their views where clinical exposure with HIV-infected & AIDS patient made a significant difference. It is important that medical educators convey accurate information about HIV, including the actual risks posed by occupational exposure and try to ensure that medical students spend sufficient time seeing patients with HIV/AIDS during their training.

Abstract

Feeding practices and impact on nutritional status among children (6 months to 2 years of age) in a selected rural community of Bangladesh

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Abstract

Nutritional status is a sensitive indicator of community health and nutrition. The nutritional status of the infants mainly depends on feeding practices in the community. The present study was conducted with the objective to assess impact of the feeding practices on the nutritional status of the children from 6 months to 2 years of age in a selected rural community of Bangladesh. **Methods:** The study was a cross sectional study. Study population was the mothers and their children from 6 months to 2 years of age and the sample size was 227. Selected cluster sampling method was followed. We used semi structured questionnaire and check list as research instrument. The age of the children was determined from the mother. Length was taken by non stretchable measuring tape) and weight was measured by the bathroom scale). **Results:** Among the study children 44.9% were exclusively breast fed while 55.1% were not. 42.29% were started complementary feeding at appropriate age. 12.8% of the children were severely wasted. 14.5% of the children were severely stunted. 10.6% of the children were severe underweight. Among 76 underweight children 43.4% were exclusively breast fed. Among 72 stunted children 47.2% were exclusively breast fed. Among 70 wasted children 45.7% were exclusively breast fed. **Conclusion:** Breast Feeding is well practiced by the mothers. Complementary feeding is poorly practiced by the respondent mothers. It can be concluded from our study that inappropriate feeding practice is an important risk factor development of malnutrition in children in our study.

Key Words: Breast Feeding, Practices, Nutritional Status, Children, Bangladesh.

Treatment pattern of acute respiratory tract infections in general practice with 3rd generation oral Cefixime in Bangladesh

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Abstract

Introduction: Respiratory Tract Infections (RTIs) are a major health problem in developing countries. An estimated number of 2.2 million people, worldwide, die yearly because of acute respiratory infections. It is estimated that Bangladesh, India, Indonesia, & Nepal together account for 40% of global acute respiratory infection mortality. RTIs are the most common reason for physician visits and prescription of antibiotics. Cefixime is quickly establishing as a potent broad-spectrum antibiotic with a wide variety of indications. This observational study was designed to describe the treatment pattern of third generation oral cefixime in managing RTIs in general practice. **Objective:** The aim of the study was to obtain information on clinical efficacy and safety of cefixime in treatment of respiratory tract infections in children and adults in Bangladesh. **Material and Method:** This non-controlled, multi-center, observational registry was carried out from October 2012 to March 2012. During this period about 2400 patients aged 3 years to 76 years suffering from RTIs were enrolled by general physicians throughout the country. Study variables were socio-demographic, sign-symptoms, clinical diagnosis, investigation, antimicrobial prescribed and clinical outcome etc. Clinical outcome was determined based on improvement of signs and symptoms. Compliance, efficacy and tolerance were assessed on days 7 and 10. The enrolled patients were considered for analysis. The mean age was 26.59 (\pm 18.10) years and 62% of the patients were male. **Results:** Common presenting signs and symptoms were fever, cough, shortness of breath and increased sputum volume in 80%, 75%, 39%, 12% respectively. From prescriptions, pneumonia, acute bronchitis, acute exacerbation of chronic bronchitis and lung abscess were the diagnosis made in 42%, 26%, 24% and 3% of the prescriptions, respectively. Furthermore, the rates of adverse events were insignificant. **Conclusion:** Cefixime is quickly establishing as a potent broad-spectrum antibiotic with a variety of indications. The study showed clinical symptoms improved rapidly and high rates of clinical cure was achieved. Furthermore, the rate of adverse events was relatively low. In summary, the results support the use of Cefixime for a variety of infections in adults and pediatric patients in Bangladesh.

Key words: Respiratory Tract Infections (RTIs), Cefixime, Efficacy, Pneumonia, Acute Bronchitis.

Abstract

Prevalence of risk factors of hypertension among adolescent population in an urban area of Bangladesh

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Abstract

Background: Overall, approximately 20% of the world's adults are estimated to have hypertension. This study aims to find out the prevalence of risk factors of hypertension among adolescent population in an urban area of Bangladesh. **Methods:** This descriptive cross sectional study was conducted in Mohammadpur area of Dhaka Metropolitan City, Bangladesh from April 2013 to August 2013. Study population was all the adolescents (10-19 years) of Mohammadpur area. Purposive sampling technique was followed for data collection. Final sample size was 313. We used semi structured questionnaire and check list as research instrument. BMI was assessed by the help of the anthropometric measurement that include the length (taken by non stretchable measuring tape) and weight (measured by the bathroom scale). All data were entered and analyzed by computer by help of SPSS 17.0. **Results:** Among 313 respondents, highest (28.75%) belongs to the age group of 14-15 years. Majority 38.34% are overweight. 65.49% have knowledge about hypertension. 92.65% and 72.52% respondents have family history of Hypertension and Diabetes Mellitus respectively. 7.35% regularly smoke. 51.12% of the do not perform any form of physical exercise. **Conclusion:** This study demonstrates the increased prevalence of physiological and behavioral risk factors in this adolescent population. Healthcare providers should be strong advocates helping to prevent obesity and promote physical activity in adolescents and children.

Key Words: Prevalence, Risk Factors, Hypertension, Adolescent population, Urban Bangladesh.