

PRIORITY AREA 4: NEONATAL AND CHILD HEALTH

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The Study of an Effect of Improved Cookstove on the Incidence of Childhood Pneumonia (1997)

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Background

The improved cookstove is expected to improve the indoor air quality. The significance of having these smokeless stoves in reducing the incidence of pneumonia has not been studied prospectively. Hence, the present study was intended to find out the effect of smokeless cooking stove in reduction of pneumonia episodes in remote district of Nepal where the indoor air pollution is very high.

Methods

It was prospective study. The study population was children under five years of age. The area with high concentration of improved stove, Patmara and Bumra VDCs were selected purposively for the study. A standard household survey questionnaire was developed. Data was analyzed by using latest computer software Statistical package for Social Sciences window version by transporting database file from *dbase IV*.

Results

The findings revealed an increased risk of pneumonia in stove type 2 i.e. traditional stove (RR=1.37 for episode and 1.23 for case) indicating that there is significantly increased risk of pneumonia in the use of traditional stove both in term of frequency and severity. The installation and use of improved cookstove can reduce risk of childhood pneumonia. Parental tobacco smoking was significantly associated with childhood pneumonia.

Conclusions

Large scale intervention study with status of the accurate measurement of the pollutants and eliminating of other confounder is needed.

Keywords: children under five; improved cookstove; pneumonia; traditional stove.

Determination of Antibiotic Resistant Gram Negative Urinary Pathogens in Pediatric Patient at Kanti Children Hospital (2001)

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Background

Urinary tract infection is very common infection. Most infections are not serious and can be treated with antibiotics. However, if left untreated some infections can result in kidney damage and even death. It is the most common serious bacterial illness among febrile infants and young children. Risk in the first 11 years of life for boys and girls are 1% and 3% respectively. About 40% of these children will have recurrent infections.

Methods

This study was carried out on 346 pediatric patients for a period of six months at Kanti Children's Hospital. Their age ranged from 2 days to 14 years of age with suspected urinary tract infection. Bacterial examination and sensitivity test was done at microbiology lab of Kanti Children's Hospital.

Results

The gram negative bacteria were the commonest isolates (98%) and among them *E. coli* was most prominent 78%. In infancy and early childhood rate of urinary tract infection is higher in male (33.3 per 100 cases) than in female (31.9 per 100 cases). Overall 80% of gram negative bacteria were resistant

to ampicillin, 72% were resistant to cephalexin and nalidixic acid, 70% resistant to cotrimoxazole and 54% to chloramphenicol. The drug of choice for *E. coli* infection was nitrofurantoin (77% sensitive). Overall 34% of *E. coli* was resistant to ciprofloxacin. 100% sensitive antibiotics against *Klebsiella spp* were amikacin, norfloxacin and ciprofloxacin. 83% of these bacteria were resistant to cephalexin, 62% resistant to nalidixic acid, 40% to gentamycin and 33% to nitrofurantoin and chloramphenicol. For *Proteus spp.* Amikacin/gentamycin and norfloxacin were 100% susceptible. 50% resistant to ciprofloxacin, chloramphenicol, cephalexin and cotrimoxazole. 50% isolation of *Pseudomonas aeruginosa* was resistant to ciprofloxacin and 25% to norfloxacin. All the isolates were sensitive to tetracycline, gentamycin, chloramphenicol and amikacin. All of the *Citrobacter spp* were sensitive to norfloxacin, ciprofloxacin, cotrimazole, gentamycin and cephalexin. 50% of the isolates were resistant to chloramphenicol and nalidixic acid. 100% of the *Enterobacter spp* were resistant to cotrimoxazole, chloramphenicol, nalidixic acid and 50% resistant to nitrofurantoin. Ciprofloxacin/norfloxacin (quinolones) was most active; since 100% of the isolates were sensitive to these agents.

Conclusions

In-vitro results should be taken into account before initiating empirical therapy. Broad spectrum antibiotics should not be used if the isolate is susceptible to older drugs in order to prevent the increase in resistance.

Keywords: antibiotics; gram negative bacteria; pediatric patients; resistant; urinary tract infection.

Factors Affecting the Preference for Acute Respiratory Infection Service Providers Working Under Integrated Management of Childhood Illness Programme in Nawalparasi District (2002)

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Background

Acute Respiratory Infection is a major cause behind high mortality of under-5 children in developing countries. Integrated Management of Childhood Illness has been implemented to improve the case management skill of the health-care workers, overall health systems, and family and community health practices and to reduce the overall mortality rate of under-5 children.

Methods

This study was descriptive and cross-sectional. The study was done in Nawalparasi district. The study took place in Bhujhawa, Amraut and Banjaria (considered as one VDC to complete sample size) VDCs from terai area and Benimanipur and Dibyapuri VDCs from the hill area. The study sample consisted of the cases of acute respiratory infection management at all levels of the four VDCs. Method of data collection was interview, observation and reviewing secondary data from both health institutions and FCHVs. The

VDCs were selected using purposive sampling. Total number of cases from the Terai area was 160 and 148 were from the hill area.

Results

Based on the eight factors of satisfaction considered in this study, it was found that majority (92%) of the care-seekers were satisfied with the ARI case management provided to the children under integrated management of childhood illness in health institutions whereas 93.83% of the care seekers were satisfied with the ARI case management provided to the children under integrated management of childhood illness by FCHVs. By area, 93.8% of the care-seekers were satisfied in Terai with compared to 91.97% of the care-seekers in the hill area. Location of ARI service providers for ARI case management was found to be satisfactory for 98.1% of the care-seekers of health institutions and 96.1% care-seekers are satisfied with the location of FCHVs. Examination procedure under IMCI was found to provide satisfaction for the 94.8% of the care-seekers of the health institutions and 95.5% care-seekers are satisfied with FCHVs. A total of 94.2% of the care-seekers are satisfied with behavior of health institution staffs and 96.8% of the care-seekers are satisfied with the behavior of FCHVs. A total of 92.9% of the care seekers are satisfied with the drug availability in health institutions and 93.5% of the care-seekers are satisfied with the drug availability with FCHVs. A total of 92.2% of the care seekers are satisfied with the perceived costs of available drugs in health institutions compared with 95.5% of the care-seekers with FCHVs. Perceived advices given during the ARI case management under IMCI is found to be 96.1% and 93.5% for health institutions and FCHVs respectively. For the users of health institutions, 80.5% care seekers are satisfied with the follow up visit while 85.7% of the care seekers are satisfied with the FCHVs. For the perceived result of ARI cases being managed under IMCI, 87% of the care seekers are satisfied with the health institutions and 94.8% care seekers with FCHVs. In this study, 40.3% of the health institution users and 40.9% of the FCHV users were found to have been informed of the four general danger signs. Geographically, it is found to be 32.5% and 49.3% for terai and hill area

respectively. However more than 60% of the care seekers cannot recall any of the four danger signs after one year of visit. More than 75% of all care seekers are found to be informed about nutrition and immunization status.

Conclusions

IMCI has improved the health system and brought about a positive change in family and community health practices. This could be further improved upon by improving the skill level of ARI service providers and through appropriate form of drug supplied and by encouraging field-visits by the VHWs and MCHWs. The access to FCHVs and health institutions should be made easier by training more manpower. The programme could be made more effective by providing regular refresher courses to the FCHVs and raising awareness level of care seekers themselves through the use of appropriate IEC materials.

Keywords: acute respiratory infection; care-seekers; FCHVs; health institutions; integrated management of childhood illness; service providers.

A Study on Knowledge and Care Practice of Mothers Regarding CSOM in Nawalparasi District (2002)

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Background

The growing number of hearing impairment due to CSOM which has been considered to be the number one preventable disease by WHO is still a serious problem in Nepal. It has different contributing factors associated with different socio-cultural practices, identification of which is of utmost importance for the preventive measures of it. This study, therefore aims to identify the knowledge and care practices of mothers regarding CSOM.

Methods

This study was conducted in Kumarvarti VDC, Nawalparasi district during the month of April-June 2000 using a descriptive exploratory methodology. Maintaining of the validity and reliability of the instrument sample size taken was 50 out of which 25 were the mothers of Tharu children and 25 were mothers of Pahadiya children. Data were collected using very comprehensive semi-structured interview schedule maintaining ethical consideration. The collected data were analyzed by using a descriptive statistical process.

Results

CSOM was found to be common in both Tharu and Pahadiya communities-67 out of 103 Tharu households and 38 out of 89 Pahadiya households had children with CSOM. CSOM was predominantly seen in male children in both communities. It was seen from the study that Upper Respiratory Tract Infection was strongly related to CSOM. Sixty four percent of Pahadiya children and 60 percent of Tharu children suffered from some degree of hearing impairment associated with CSOM. Low socio-economic status, practice of using mustard oil or instillation of various types of liquid in the ear, ear pricking habit, blowing nose, entrance of water during bathing or swimming, laying down position during breast feeding and recurrent URTI are the common factors in the causation of CSOM.

Conclusions

The problems of ear infection should be controlled and cured by proper medical and surgical management. Proper health education could prevent a vast majority of cases.

Keywords: care; CSOM; knowledge; mothers; practices.

Study on Determinants of Low Immunization Coverage in Four VDCs of Humla Districts

(December 2003-February 2004) 2003

Shahi BB

Background

Humla is the district with lowest EPI coverage in Nepal. Frequent outbreak of measles is reported in the district. This study is carried out to identify reasons for lower utilization of immunization services in Humla district and estimate current EPI coverage in the study area.

Methods

It was a cross-sectional, descriptive, quantitative study based on non-experimental design. The study site was based on 4 VDCs of Humla district -Dandafaya, Hepka, Khangalgaun and Muchu, which have lower coverage of immunization. Only 81 children were studied though nearly 91 children of target group (13-24 month) were estimated in sample clusters. Structured and semi structured questionnaire for mother or caretaker were developed. Secondary data was also analyzed from District Health Office for the collection of information regarding coverage of vaccine, no of clinic run, etc. Data entry, processing and analysis were done in SPSS statistical software.

Results

It was found that the immunization coverage of the community was BCG-83%, DPT1-74%, DPT2-62%, DPT3-48%, and Measles-59%. NID coverage -102%. In the same way completely immunized children were 43%, partially immunized children were 40% and not immunized children were 16%. Dropout is higher- 28% for BCG vs Measles and 35% for DPT1 vs DPT3. However no one in the community was able to show immunization card of their children, as it was not provided to them. No any socio-demographic variable is associated with immunization though coverage is higher for female than male and more farmers have immunized their children than that of other occupation. Nearly all have listened about immunization in general. But more than 90% don't know about specific immunization BCG, DPT, Measles, Polio and proper age for immunization. More than 95% belief that immunization protects from all diseases. There is no fixed date and time for clinic. Only 35 % people get information on time however time of clinic is perceived convenient for majority of respondent. Clinic run irregularly for 53% of respondent and even very irregularly (*Kahile Kanhi matra*) in 30% clusters. Entire people perceived behavior of health worker and counseling

after immunization is either good or medium but not poor. More than 95% respondents had access to EPI clinic in their own residential village or within the walking distance of 1 hour (one way). In these aspects clinics are accessible but during rainy season (Jestha to Asoj) people especially mothers of infants migrate to high altitude "*Lekha*" and clinics become inaccessible. Nearly 47% children suffered from high fever or severe pain or abscess for prolonged period (more than one week) after immunization. Odds Ratio is high for timely information not provided (6.91), clinic irregularity (6.57), distance of health institution more than one hour (4.69) and perceived side effect present (3.82). Main reason for non-immunization is given seasonal migration in the same VDCs in warm season, date not known and fear of pain/adverse effect.

Conclusions

Health care service is the major factor for the low coverage of immunization

Keywords: coverage; determinants; expanded immunization programme; immunization.

The Analysis of Record and Outcome of Anaesthesia for the Children Undergoing Paediatric Surgery in Kanti Children's Hospital (2003)

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Background

The database maintained for all the anesthesia cases have been poor and the information has been insufficient to properly analyze the data as required. Hence, this has hindered to evaluate the information on various grounds. Without proper database system it will not be possible to review and forecast the overall situation. Therefore, if standard data bank can be maintained it will be very helpful to develop a better outlook and apply better room in upgrading the services among the infant and neonate who are in need of surgical services in this hospital.

Methods

The main source of information is retrograde analysis of the data available in the department of Paediatric Anaesthesiology, Kanti Children's Hospital. A total of 1500 samples were selected including routine and emergency cases. All the information was carefully entered into the databank from the record book. Once all the samples (1500) were entered into the computer, a thorough analysis was conducted on several grounds to get in-depth picture on every detail. Later with the help of the data result a brief report was prepared.

Results

The analysis of the routine cases showed 186 varieties of different surgical conditions needing anaesthesia services. There were 26 varieties of cases in emergency. Some conditions like inguinal hernias and hydrocoels are very common and become the base line of paediatric surgery and anaesthesia. Some conditions like Diaphragmatic Hernia, Gastrochiasis and Tracheo-oesophageal fistula become the challenging situations both for the surgeons and anaesthesiologists. The most common sex in paediatric anaesthetic cases was male. The age distribution includes from day one to fourteen

years of age. The weight of the patients was as low as below 1500g. The services rendered to the patients include the patients brought to OT directly from emergency to various wards and cabins after the proper preparations of the patients.

Conclusions

The varieties of cases were common to rarer and interesting cases. The cases like inguinal hernias and hydrocoels become the baseline cases occurring in the department. The challenging cases like Tracheo-oesophageal fistula comes to the department and has some success stories. As a whole, the performance of the department is encouraging. The analysis of different combination of services with reference to age groups and weight groups reflected some ground to think on the management of paediatric anaesthesia cases.

Keywords: anaesthesia; children; Kanti Children's Hospital; paediatric; surgery.

Parent's Knowledge and Attitude towards Oral Hygiene among Their Children Age between 5 years to 14 years Attending in General Out Patient Department in Kanti Children Hospital (2003)

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Background

Oral health affect on child's quality of life and it depends on parent's knowledge and attitude towards oral hygiene. Since oral hygiene is most necessary part of human being this study must be done which aims to explore the parent's knowledge and attitude towards oral hygiene among their children.

Methods

The design of the study was cross-sectional analytical. Total fifty parents were taken attending their children between 5 years to 14 years in out-patient department of Kanti Children's hospital using non-probability purposive sampling technique. A semi-structured questionnaire was used for collecting necessary information. All the collected data was analyzed and categorized on the basis of research objectives and hypothesis using simple statistical methods as table, graph and pie charts.

Results

Regarding knowledge and attitude, majority of respondents (92%) answered oral hygiene meant cleanliness of teeth, gum and tongue. Majority (64%) answered child's mouth should be clean to keep oral cavity healthy. Hundred percent respondents said that they are assisting their children for maintaining oral hygiene. Among them 29 (58%) respondents were assisting to prevent oral problem. Majority of 28 (56%) were starting to maintain their children's oral hygiene at 3years to 5 years. Majority of 49 (98%)

respondent's children used tooth brush and toothpaste. Majority of respondents (70%) did not take their children to dentist for regular check-up. 22% children preferred sweet containing food. Majority of respondents (98%) changed their children's tooth brush, among them 52% change after 2-4 months. Majority of respondents (86%) did not believe on wizard's treatment.

Conclusions

Most of the parents have knowledge on oral hygiene but they don't guide their children proper method for maintaining oral hygiene. Therefore, parents need health education about oral hygiene in general.

Keywords: attitude; children; knowledge; oral hygiene.

A Study on Emotional and Behavioural Problems of Street Children in Rehabilitation Centers of Kathmandu Valley (2003)

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Background

Most of the street children are vulnerable to develop emotional and behavioural problems due to deprived family environment, love and affection. There is no exact national figure available in Nepal on the emotional and behavioural problems among street children. Most of the projects offer assistance to street children in rehabilitation centers for the welfare of their lives but they don't seem to be concerned about their emotional and behavioural problems and its consequences. This study therefore was carried out to measure the prevalence rate of emotional and behavioural problems as well as contributing factors of these problems among the street children.

Methods

A descriptive and explorative design was used for this research. A total of 50 children above 8 years of age in rehabilitation centers of Kathmandu valley were included using a non-probability purposive sampling technique. The child behaviour checklist 118 item scale was used for interview. A semi-structured questionnaire was used to find the contributing factors. The collected data was analyzed and interpreted by using different table, graphs and charts.

Results

The prevalence of emotional and behavioral problems among the street children was 40%. Boys were more often having problems than girls (1.6:1.0). Similarly the prevalence of emotional and behavioural problems

was higher in aged 11-13 years. The majority of case was anxiously depressed (25%), attention problem (20%), social problems (15%), somatic, aggressive and delinquent behaviour (10%). The prevalence was higher in rural and poor family based than urban and wealthy family background. The problems was associated with maltreatment by step parents at home (60%), weak personality traits such as felt neglected by other (80%) and by family members (56%). Family relationship was not so good of 50% cases. Most of the cases various difficulties in street like food (80%), sleeping (75%), clothing (60%) etc. 80% of the cases had history of physical assault and 90% of cases used substance alcohol and drugs. 55% of the cases had not shared the problems with others.

Conclusions

Emotional and behavioural problems of street children in Nepal are more common than those reported in western literature.

Keywords: behavioural; emotional; prevalence; problems; rehabilitation centers; street children.

Health Status of Primary School Children in Teaching Districts (Dhankuta and Sunsari) of B.P. Koirala Institute of Health Sciences (2003)

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Background

The age group 5 to 15 years is on the threshold of adulthood on whom the progress and welfare of community depends. Therefore it is necessary to provide targeted services to improve their health status. This study thus is an attempt to determine the health status and morbidity of primary school children from grade I to grade V in the hilly and terai region of eastern Nepal.

Methods

A cross-sectional descriptive study was carried out from June 2003 to September 2003. A total of 818 students from grade I to grade V were included from government primary schools. A simple random sampling technique was used to select five primary schools. A questionnaire was used to collect information. Standard procedures were used to obtain weights and heights of the children. The collected data was entered in Microsoft Excel and analysis was done with the help of SPSS statistical package.

Results

Most of the morbid conditions found in the present study were related to malnutrition and infectious diseases; anaemia (58%), skin diseases (20%), dental caries (19.8%), lymphadenopathy (10.5%). In the prevalence of skin diseases, the commonest one was pediculosis followed by ring worm and scabies. Behaviour disorders like nail biting, thumb sucking, preference to be alone were common in girls. Among all students overall 12.3% had behaviour

disorders. The total percentage of stunting and under nutrition was 65% and 82% respectively. According to waterlow classification, 62.7% were normal in nutritional status while 21.5% were stunted and 10.5% wasted. The treatment preference of teachers for sick students during school hours was to take the sick children to nearby hospital. There was no school health programs in any of the surveyed school but the school teacher showed their willingness to cooperate with health personnel for school health program in their schools.

Conclusions

This study highlighted the need for initiation of school health program in the schools with the support of District Health Office with more emphasis on improving personal hygiene of the students, control and prevention of diseases like parasitic infections and anaemia to ensure overall improvement of their nutritional well being.

Keywords: health status; morbidity; nutritional status; primary school children; school health program.

A Study on Factors Associated to Low Birth Weight in the New Born Babies of Bheri Zonal Hospital and Teaching Hospitals of Nepalgunj Medical College in Banke (2003)

Shah DJ

Background

The overall prevalence of low birth weight in Nepal is still at the alarming condition which should be the matter of concern for all those who are being involved in public health field. The main objective of this study was to find out the proportion of low birth weight and the factors associated to low birth weight in the selected hospitals.

Methods

The study design was descriptive cross-sectional in nature. The study enrolled 225 mothers admitted for delivery in Bheri Zonal Hospital and Teaching hospitals of Nepalgunj Medical College. Data were collected prospectively for the period of 42 days. Thus the sampling method was adopted purposively for the convenience. The tools for data collection were semi-structured questionnaire, equipment for measuring height and weight for mothers and children. Interview with mothers, recording of information by observation and an interview with the medical recorders and other related personnel were made while collecting the information.

Results

The study found that 22.7% of babies born at these hospitals were with low birth weight. The average birth weight of the babies was 2800 grams. The factors strongly associated with low birth weight were low maternal weight, short stature of mother, low educational level of mother and father, long hours of physical activities during pregnancy, inadequate food intake during

pregnancy, low family income and inadequate antenatal visit. Based on the hospital record the proportion of low birth weight was 22.4% in 2054/55 and 28.0% in 2058/59. The study revealed that 42.2% of mothers with low birth weight babies perceived that their babies were small. Similarly positive predictive value for predicting normal weight at birth was 80.8% among mothers with normal weight babies.

Conclusions

The prevalence of low birth weight has not been reduced to the level targeted by the National Nutrition Program. Thus program activities relating to the children and mothers especially in reducing these affecting factors on low birth weight need to be more effective.

Keywords: babies; factors; hospitals; low birth weight; mothers; proportion.

Factors Affecting Low Coverage of Immunization under 2 years Age of Children in Nawalparasi District (2003)

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Background

Government target for coverage of immunization is more than 80%. But immunization coverage in Nawalparasi district is below to this government target. Many children die and many become disabled due to lack of proper immunization. This research determines different factors affecting low coverage of immunization in Nawalparasi district.

Methods

This research was carried out in six VDCs of Nawalparasi district which has immunization coverage less than government target. For data collection different models of structured and unstructured questionnaire were used to conduct face-face interviews.

Results

This study showed that 85% mothers didn't know the time interval between two doses of Polio and Measles. Similarly the percentage of mothers knowing only the names of vaccines ranged from 54% to 60%. The percentage of mothers knowing the age of (child) starting immunization ranged from 25% to 61%. The knowledge of doses of immunization among mothers was found to be in the low range of 33% to 60%. This pattern soundly predicts that in Nawalparasi district, there is lack of awareness about the names of vaccine; time interval between two doses of the same vaccine; age of vaccination of child and dose of immunization which have positive correlation with the low coverage of immunization. The effect of neighborhood for the low coverage of immunization was studied and found that 33% of children get immunized

in other VDCs which had significant positive influence on the low coverage. In this study, mothers in joint family bear better knowledge score of immunization than that of mothers in nuclear family. An adverse reaction of vaccines has a significant positive correlation with low coverage of immunization. The behavior and punctuality of staffs is a significant factor for the low coverage.

Conclusions

In order to reach the goal of complete coverage need to satisfy-the vaccines be accessible to the population (supply); the population be aware of the need to vaccinate children (demand) and there should be simple system of monitoring the coverage of immunization as well as monitoring of the cases detected.

Keywords: factors; immunization; low coverage; vaccines.

Health and Nutritional Status of Primary School Children in Relation to School Performance (2003)

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Background

Under nutrition and poor health are important underlying factors in low school enrollment, absenteeism, poor class performance and early school dropout. This study was carried out to find out what type of under nutrition and poor health are affecting the primary school children.

Methods

Descriptive cross-sectional study was carried out in one government and one private school in Bhaktapur. Questionnaire, focused group discussion, clinical examination and laboratory examination were conducted to collect the data.

Results

Prevalence of malnutrition was 6% wasted, 26% underweight, 27% stunted and 7% severe stunted, nearly equally distributed in both sexes. More percentage of children in failed group was stunted (54%), underweight (39%) and severely underweight (2%). Two third of government and half of the private school students were anaemic. Protozoal and helminthic infestation was 53% (government 67% and private school 45%). Parasitic infestation was associated with more of underweight 60%, wasted 38% and least of stunted 19%. Lice was seen in 7%, dandruff 3.2%, earwax 46% and ear discharge 3.4%. failure rate was more in government than in private school.

Stunting (26%), underweight (23%) and anaemia (10%) were higher in failed group.

Conclusions

Poor school performance was seen in students who were chronic malnourished i.e. stunted, underweight and anaemic. No such relationship was seen with acute malnutrition (wasting), earwax, poor visual acuity and stool parasite with school performance. However the findings were not statistically significant and more study in large population is needed.

Keywords: malnutrition; stunting; underweight; wasting.

Childhood Morbidity Pattern and Health Seeking Behaviors in Jumla District (2007)

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Background

Jumla is a mountainous District that lies in Karnali Zone. Health status as well as health services in the district are very miserable. To provide preventive, promotive and curative health services for around 89,000 populations, 1 district hospital, 1 PHC, 8 health Posts and 20 Sub Health Posts have been established. This research aims to explore childhood morbidity pattern and practice of health seeking during illness in the district where virtually no research activities happen. Further, both childhood morbidity and health seeking behaviors are compared with various indigenous and social factors.

Methods

Around 300 children were selected by WHO 30 cluster sampling for the study however only respondent of 278 children were available for the study. Sampling method was of probability type. Data were entered and analyzed in computer program SPSS and statistical inferences is drawn on the basis of percentage, mean and chi-square test. The study period was of around three months. It is a descriptive and cross sectional study and target population is under five children. Study was for the period of 1st Chaitra 2062 to 30th

Falgun 2063. To get the inferences, statistical tools like chi-square test and mean are used.

Results

In the period of last two weeks, 60.9 percent children were exposed to any type of illness. Cough and cold was the most leading cause of illness with 56 percent of children had its symptoms. Second leading is Diarrhoea and Dysentery with 21.8 percent third is Pneumonia with 9.2 percent. Two weeks incidence of disease is significantly associated with the house hold not using toilet ($p = 0.017$) and living away from one hour of distance from health institution ($p = 0.036$). Two weeks incidence is also higher among uneducated mothers, farmers, laborers and housewives. Similarly joint families and having traditional house hold are also more likely to be exposed to sickness. The proportion of mothers who sought modern health care for two weeks incidence is 46.1 percent, Home treatment 26.9 percent, traditional treatment 7.8 and doing nothing is 19.2 percent. Highest proportion of people sought the special care because it was easily available 38.1 percent where as 27.4 percent preferred it. More than two in three mothers take service from either Health Worker or Health Institution and more than one in four visited FCHV first among the people who sought for modern health care. On the other hand more than 50 percent felt lack of time or service unavailable to take service from health care providers. Treatment failure rate was highest among traditional healers 50% and lowest among modern health care seekers 3 percent (condition worsened and not changed). Treatment success rate is better in home treatment than that of doing traditional treatment or doing nothing. In an average, one child suffered 2.1 episodes of illness during last one year, and maximum episode was 12. They waited in an average 57.2 days in ear infection, 9.3 days in skin infection and 3.0 days for diarrhoea to seek health care. Diarrhoea and Pneumonia are felt most serious disease in Jumla. Feeding practices during diarrhoea is not satisfactory and just one in ten respondents know proper home care of cough and cold. Home treatment of fever and ear infection is horrible and harmful, unfortunately majority are pursuing it.

Conclusions

It is necessary to develop, implement, and evaluate interventions to improve caretaker behaviors essential to child survival, including prevention, recognition of illness, home care of the sick child, and appropriate and timely care seeking. Also required are the development and testing of methods to motivate health personnel to adopt and sustain the new practices required by integrated case management of the sick child, including communication with caretakers.

Keywords: childhood morbidity pattern; health seeking behavior; Jumla; practice.

Knowledge and Practice of Parents on Childhood Immunization of Mushar Community in Morang district, Nepal (2007)

Subba BB, Rana HB, Ansari M

Background

A wide array of factors influence the immunization of Nepalese children but by far the most important factor is parent's beliefs, attitudes and perception of immunization. Thus the primary aim of this research is to find and achieve a deeper understanding of beliefs, attitudes and practices of parents concerning the immunization of their children health.

Methods

This study was carried out at 12 VDCs of Mushar community in Morang district, Nepal. Four hundred and three sample respondents were selected randomly to assess the level of knowledge and practice on immunization.

Based on the objectives and variables of the study; tools were selected and two different interview schedules characterized by focus group discussion guidelines, and face to face interview schedules were developed for data collection. Data were taken primarily by using pre-tested questionnaire with closed, semi-closed and opened questionnaire. Collected data were analyzed by using the software SPSS 12.0 with the help of biostatistician.

Results

Of those surveyed, 53.3% male and 58.1 % female respondents reported being immunized. This percentage remarkably increased in their children immunization practice and 92.3% male and 94.0 % female respondents reported that all of their children were immunized, and 7.7% male and 6% female stated that none of their children were immunized. In addition, those parents with low levels of education were more likely to have higher immunization rates. Furthermore, qualitative findings indicated that parents reported benefits of immunizing children that appeared to be a major reason for their children's immunization.

Conclusions

Parents who have lived in city area like Biratnagar municipality may be at greater risk of not being immunized against vaccine preventable diseases and that health education interventions in this community may be more effective if they are focused on perceived benefits of immunization in the future intervention efforts.

Keywords: childhood immunization; knowledge; mushar community; practice.

Nutritional Status of Children under Five Years and Factors associated in Mahottari District, Nepal, 2010 (2010)

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Background

Protein energy malnutrition (PEM) is chronic public health problem in Nepal. The population of under five children in Nepal constitutes more than ten per cent of total population. Socio-economic and environment factors are found to be significant for malnutrition among children under five. In the mid-southern Terai including Mahottari district has protein energy malnutrition and micronutrient deficiencies problem due to behavioral and socio-cultural problems. The study was conducted to assess the nutritional status of under five children in Mahottari district of Nepal by considering socioeconomic and demographic factors and taking anthropometric measurements.

Methods

The study was cross sectional and descriptive. The study included 400 children selected randomly 9 from each 45 wards which in turn selected from 15 sample village development committees (VDCs) selected from of 77 VDCs three clusters which comprised two electoral constituencies each from 6 electoral constitutions of Mahottari district. All clusters were designed on the basis of population and sample was fixed proportionally from each cluster.

Results

The socio-cultural and household indicators of people of Mahottari district showed poor in relation to nutrition. The mid upper arm circumference (MUAC) showed half of the children were protein energy malnourished. Among PEM children, 11% were severely malnourished. According to Gomez classification, the two third of children were malnutrition which comprised of 16% severe, 25% moderate and 28% mild malnutrition. The Waterlow's classification revealed that two-third of children were suffering from acute and chronic malnutrition which comprised of 22% stunted indicating chronic malnutrition, 29% wasted indicating acute malnutrition and 14% wasted and stunted showing chronic and acute malnutrition. The bivariate analysis showed not significant ($p=0.07$ for underweight and $p=0.79$ for stunting) relationship of sex, ethnicity ($p=0.46$ for underweight and $p=0.23$ for stunting), and household economic status ($p=0.69$ for underweight and $p=0.35$ for stunting) with nutritional status of children. Significant association was observed between age of the children ($p=0.00$ for both underweight and stunting), mothers' education ($p=0.004$ for underweight and $p=0.002$ for stunting), and use of rice scum at household ($p=0.04$ for underweight and $p=0.04$ for stunting) and nutrition status of children.

Conclusions

The education level in parent especially mother education as contributing factor for malnutrition of children level should be improved with health education. The nutritional status of children should be periodically assessed using suitable nutritional indicators by respective stakeholders also with such type of health researches

Keywords: factors; nutritional status; protein energy malnutrition; under five children.

Assessment of the Disease Burden of Acute Lower Respiratory Infection among Under-Five Children Due to Indoor Air Pollution in Sindhupalchowk District, Nepal (2010)

Pathak RP

Background

Acute Lower Respiratory Infection (ALRI) i.e. pneumonia, severe pneumonia and very severe disease as per the standard classification protocol of the government of Nepal (GoN) or World Health Organization (WHO), is one of the major killer of under-five children in Nepal. Acute Lower Respiratory Infection and attributable fraction to the exposure to solid fuel smoke in

indoor environment. Solid fuel is the most common as it is used by more than 80 percent population for heating, cooking and other household purposes in Nepal and mostly women and young children are exposed to it.

Methods

This was a cross-sectional descriptive study following probability sampling method. Thirty clusters (wards) were selected following systematic random sampling technique with equal class interval and the sample represented 449 households and 292 children of under five years of age.

Results

Solid biomass fuel was primary source of energy in Sindhupalchok district. Almost all (94.9%) household use bio-mass fuel i.e. dung, charcoal, fire wood, crop residue, etc for heating and cooking purposes; sizable people (4.2%) use mixed fuel i.e. both biomass and clean fuel for household purposes. It was found that the incidence of Acute Lower Respiratory Infection was 1.03 episodes per child per year contributing 336 Disability Adjusted Life Years lost annually. And about 52 percent episodes (i.e 175 Disability Adjusted Life Years) of Acute Lower Respiratory Infection were attributed to indoor smoke in the district.

Conclusions

The use of less expensive smoke reduction option like Improved Cooking Stove use not only address the problem of Acute Lower Respiratory Infection but a range of health problems like Chronic Obstructive Pulmonary Disease, Eye problems, mental problems etc. and should be promoted.

Keywords: acute lower respiratory infection; disease burden; indoor air pollution; under five children.