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A. Research Abstracts on Child Development

Child Welfare


BACKGROUND: Internet is a medium to obtain faster information, research and communication, but for some users, it may become a companion for survival. Adolescents usually have poorer self-control, worse self-regulation, and poorer cognition as compared to adults and are considered the most vulnerable group to the temptations of the internet.

OBJECTIVES: To study the prevalence of internet addiction in school going adolescents, elucidate the pattern of internet use in these adolescents and to note the association of any psychopathology with internet addiction.

METHODOLOGY: This cross sectional study was conducted among 603 school going adolescents studying in the 8-12th standard in a private school in Mumbai. Students who had access to the internet and smart phone for at least a year were included in the study. A semi-structured questionnaire was used to collect data. Young’s Internet Addiction Test was administered under the study.

FINDINGS: The mean age in girls was 14.94 ± 1.04 years and in boys was 14.82± 1.12 years. More than one-third (36.3%) (n= 202) of all students were using internet for 3-5 hours a day for social networking. 43.3 percent of boys were found using the internet mostly during evening while more than half (57.7%) of girls reported early morning internet usage. About two-fifth (44.5%) of boys had their personal mobiles while less than one-third (30.9%) owned laptops. More than half (53.8%) of girls in the study had personal mobiles while 19 percent owned laptops. Using Young’s Internet Addiction Criteria 21, it was found that 3.9 percent of boys and 1.96 percent girls met the criteria for internet addiction. The difference across genders was statistically significant and a significant correlation between total daily hours of internet and internet addiction severity was demonstrated (p= <0.0001 Spearman r= 0.2689). Girls experienced greater amounts of stress and had high scores on the depression scale of the DASS questionnaire. No correlation was found between anxiety levels and internet use. A similar trend was noted in boys as well.
CONCLUSION: Internet addiction is an emerging psychiatric disorder in children and adolescents. A number of factors play a role in the development of internet addiction. Girls and boys may differ in their patterns of internet use and addiction. There is a need for further studies to in school based and general child and adolescent populations to evaluate the epidemiological characteristics of this disorder and to plan effective interventions at a community level for the same.

KEYWORDS: 1.CHILD WELFARE 2.INTERNET USE 3.INTERNET ADDICTION 4.ADOLESCENTS 5.DEPRESSION 6.ANXIETY 7.STRESS 8.PSYCHIATRIC DISORDER 9.SOCIAL NETWORKING.
BACKGROUND: Economic impact has been measured in terms of the expenditure on health and medical facilities due to early marriage. The consequences of child marriage is that the health status of mother and child is adversely affected leading to higher expenditure on health.

OBJECTIVES: To find out the extent to which child marriage is prevalent in the State of UP; to assess the extent to which young married girls suffer from malnutrition and other health related problems; to compare the physical and health condition of child marriage cases with those who were married after reaching 18 years of age; to find out the extent to which children born to young married girls have either failed to survive or suffer from health problems such as malnutrition, stunting, vision impairment, etc. and compare these children with those born to adult married women; to find out the extent to which young married females are availing pre and post-natal care at maternity centers

METHODOLOGY: Multistage sample design was adopted for the study with a sample size of 1000 women respondents, 250 households from each districts of Uttar Pradesh namely, Rae Bareli, Badaun, Faizabad and Lalitpur were selected.

RESULTS: The socio-economic distribution reveals that majority of the females (57.4%) were in the age group 18-25 years. Out of total majority of the respondents (97.7%) were married. 81.2 percent of the respondents were Hindu and remaining (18.4%) were Muslims. Educational status of the household members reveal that majority (25.32%) were educated upto primary level, followed by junior high school (13.13%), high school (7.09%), intermediate level (3.80%), and least (2.55%) had done graduation. The age of husband at the time of marriage reveals that majority (54.2%) of the respondent's husband were married in the age group 19-25 years. 37 percent respondent's husbands at the time of marriage were in the age group 12-18 years. While correlating this to the age of the respondents at the time of marriage reveals that mostly (57.3%) were married between age group 12-18 years, followed by respondents (15.2%) married off at a very young age of below 12 years. It indicates that there is a high incidence of child marriage still prevailing in the community. Problems after marriage revealed that, 15.24 percent who were married before 12 years faced problems due to childhood behaviour. Another (28.05%) had to face increased work load, while some (9.76%) claimed adjustment
problems due to change in family ambience. About 29 percent respondents reported problems at the time of child birth. While, the health of children born had been affected miserably, with majority (58.8%) children reported to be weak while 12.8 percent very weak. Nutritional status of the children according to the age of marriage of mothers reveal that extent of stunting prevailed among 17.1 percent, and wasting in 29.4 percent children whose mothers who were married before 12 years, while that of severe stunting was 38.5 percent and severe wasting was 6.9 percent. Among females 12-18 years of marriage age moderated stunting was 25.4 percent and severe stunting was 42.5 percent. Economic impact on child marriage revealed that about 7 percent of the respondents felt that if their education status had been better, they could have contributed more to family income. Overall 39.5 percent of respondents were aware about the legal age of marriage. Majority (88%) of the respondents were averse to marrying their daughters before the age of 18 years. Social efforts at prevention of Child Marriage were attempted in 31 cases to resist child marriage between the ages of 12-18 years, but in only 2 cases child marriage could be prevented.

**CONCLUSION:** The level of awareness of the respondents about the legal measure for prevention of child marriage and the extent of awareness of young married females about family planning and health and proper care of their children was very low. The role of Media should be emphasized in promoting awareness about social issues by making aware of child marriage restrictions via programmers on various forms of media.

Education


**BACKGROUND:** The target of Sarva Shiksha Abhiyan (SSA), a mega educational project is not only to expand the scope of elementary education by providing facilities of universal access, enrolment, retention and participation but also to make qualitative improvement in achievement. But it is seen, that the learning competencies of pupils in government schools are not satisfactory despite of all efforts. While, the competency levels of children in Govt. and private schools are remarkably different. The ASER 2014, which measures the educational competence of the students, shows that the reading levels and arithmetic ability of students in government schools are too fall short of their private counterparts.

**OBJECTIVES:** To study the learning achievements of the learners in elementary schools of Odisha; to study the views of teachers with regard to the factors accountable of low learning achievements of the learners at elementary stage; to find out the suggestive remedies from the teachers to improve the learning achievements of the learners of elementary schools.

**METHODOLOGY:** For the present study, a sample of 151 in-service teachers from four major districts of Odisha and 7 teachers from neighbouring state Chhattisgarh were selected.

**RESULTS:** Out of total, 115 (76.15%) teachers strongly agreed that infrastructural facilities were not good in schools. Similarly, 134 (88.74%) teachers said low learning achievements of the children in tribal pockets of Odisha is due to inadequate numbers of the teachers available in the schools. Besides, three-fourth (75%) teachers replied insufficient TLMs and 87 percent teachers said lack of well-equipped library and laboratory facilities are accountable for low performance of children in elementary schools of tribal and rural districts of Odisha. Majority (83%) felt lack of better infrastructural facilities in Govt. schools as the prime factors responsible for low learning achievement in tribal areas of Odisha. Half (50%) of the teachers agreed that the teachers are not serious about students learning while about three-fourth (73.5%) respondents said teachers were serious to complete their course ignoring the interest, mental ability and standard of their learners. Interestingly, majority (87.5%) teachers said they were over loaded due to other assignments excluding teaching. Around three fourth (74%) complained poor attendance of students in schools as a vital factor accountable for their poor learning achievements. 62 percent teachers said that they were not provided regular orientation while about 61 percent teachers stated that they were not
provided the need based training. Similarly, 68 percent teachers admitted that the traditional chalk and talk i.e., teacher dominated methods are still practiced in schools instead of activity based and student friendly methods of teaching. While, three-fourth (75%) teachers said the performances of teachers are not assessed and monitored regularly and properly which impact quality education. Similarly, 62 percent teachers replied that low salary structure and no effective promotional facilities discourage teachers for quality education in schools.

**CONCLUSION:** Provision of need based orientation and training should be organized to update and refresh the teachers. Strict and constant transfer policy could be executed and all teachers shall be made compulsory to work at least 5 years in the remotest villages.

**KEYWORDS:** 1. EDUCATION 2. SARVASHIKSHAABHIYAN (SSA) 3. TRIBAL AREAS, NEED BASED ORIENTATION 4. PERFORMANCES OF TEACHERS 5. POOR ATTENDANCE 6. TEACHING LEARNING MATERIALS (TLMS) 7. IN-SERVICE TEACHERS 8. METHODS OF TEACHING 9. QUALITY EDUCATION.
BACKGROUND: If a child had attended school but withdrew after sometime due to some reason and the child is presently not attending school, the child is said to be a potential drop-out. The potential drop-out problem is pervasive in the Indian education system. Multiple factors are responsible for children dropping out of school. Risk factors begin to add up even before students enroll in school that includes: poverty, low educational level of parents, weak family structure, pattern of schooling of siblings, and lack of preschool experiences. Family background, domestic violence, multitude of school factors such as uncongenial atmosphere, poor comprehension, attitude and behaviour of the teachers, and failure or repetition in the same grade can also result in student drop-out.

OBJECTIVES: To study the effect of gender, school resources, time on drop out of class I-VIII students of central U.P.

METHODOLOGY: A descriptive study with a sample size of 1017 students of class I-VIII, from 50 schools of central Uttar Pradesh including 520 boys and 497 girl students. The Cattell culture fair test for intelligence checking, Socio Economic status, school information questionnaire and school absenteeism schedule self-made test were used for data collection.

FINDINGS: The result shows a significant difference between drop outs of males and females (df =1015, t=1.40). Out of 60 scores, the mean absenteeism scores of male students was 47.33 (SD = 2.75) and that of female students was 47.58 (SD=3).The mean drop outs score 21.29 (SD = 4.5) and 19.97 (3.44) of student of good and poor resource school respectively. The mean drop out score 21.29 and 19.97 and standard deviation (SD=4.50 and 3.44) of students of good and poor resource school respectively. The t value is 1.111 which was not significant at 48 df.

CONCLUSION: The mean score of students of good experience schools were found a bit higher than the mean score of students of poor resource school student. This study showed that male and female students had equal drop outs. The result also showed that the school resources had no impact on drop outs.

KEYWORDS: 1.EDUCATION 2.POTENTIAL DROP-OUT 3.PATTERN OF SCHOOLING 4.ELEMENTARY SCHOOLS 5.CENTRAL U.P 6.SCHOOL RESOURCES 7.ABSENTEEISM SCORE
BACKGROUND: People living in slum areas play a key role in urban life. They do every odd work beginning from rag picking to construction of houses. The resources of slum dwellers are limited. Many children from slum areas do not have access to schools with adequate facilities. Besides, the distance of the school from the residence, a question of quality of the educational facility suited to the needs and cultural background of the low income rural migrants also raised. Above all, poverty is one of the prime factors for slum areas educational development.

OBJECTIVES: To study the needs of the out of school slum children; to find out whether there exists any significant difference between needs of out of school slum children in relation to certain variables such as sex and age.

METHODOLOGY: Descriptive survey research method was used under the study, with a sample size of 400 students from 20 different slums in Delhi were selected randomly. Needs Reflecting Interview Schedule (NRIS) were developed as tools for the study.

RESULTS: 90.75 percent of children showed the need of the house. The second most important need of these children was dietary needs. 89 percent of these out of school slum children wanted a nutritious and balanced diet which is an eventual requirement for the child’s physical development at the growing age. That is from 11 to 14 years children were generally dissatisfied with their dietary food needs and demanded a nutritious food for them. Only 55.25 percent children placed less importance to their academics. Findings also reveal that 71.75 percent of children understood the need of social acceptance in the society. While 68.25 percent out of school slum children wanted to become psychologically sound and felt that they should be provided with love and affection. Due to low living conditions in their slum areas, majority (86.25%) of these children have a desire to be economically strong. It was also seen that boys wanted to be more economically strong as compared to girls on the street. About half (52.75%) of the respondents were in need of recreational activities to able to enjoy their childhood but they are occupied with labour and support to their parents at work.

CONCLUSION: The present study highlights diversity of problems and needs of out-of-school slum children. Even the non-formal education to mainstream into formal education is insufficient. Therefore, Government and Non-Government organizations need a systematic approach for planning, organization and effective implementation of their programs in the light of social, economic and cultural context of particular slum area.
KEYWORDS: 1. EDUCATION 2. OUT OF SCHOOL 3. CHILD LABOUR 4. SLUM CHILDREN 5. LOW LIVING CONDITIONS 6. NON FORMAL EDUCATION 7. SOCIAL ACCEPTANCE 8. RECREATIONAL ACTIVITIES.

BACKGROUND: Guaranteeing equality in education is the foundation to develop just, fair and egalitarian society. In the modern democratic societies, education is the only mechanism to transcend the barriers of social exclusion and prejudices. Addressing lack of access to and inequality in education is central to achieve social justice and by extension broader societal development. Access to education by various social, economic and other vulnerable groups needs to be continually examined to identify areas of concern. Notwithstanding high aggregates in urban areas, slums continue to be deficient in public provision of education that adversely impacts the participation.

OBJECTIVES: To identify the issues of access, participation and learners’ competencies dimension, cutting across all levels of school education faced by children residing in slums and; examines the effect of household and individual characteristics on child’s education living in slum.

METHODOLOGY: Total number of 706 households from Hyderabad and 622 households from Ludhiana having 6-17 years of children were surveyed.

RESULTS: In Hyderabad, around 48.5 percent of the children belonged to OBC category 34.6 percent to SC category whereas in Ludhiana, the proportion of SC category population was higher with 43.1 percent in comparison to all other categories of population. In Hyderabad around 29.3 percent children were in the age group of 6-14 years and 7.2 percent were in 15-17 years of age group whereas in Ludhiana around 39 percent of children were of age 6-14 years and around 6.8 per cent children were in the age group of 15-17. Around 23 percent of the fathers in Ludhiana and around 44 percent in Hyderabad were working as a labourer in construction sites and around 26 percent in Ludhiana and around 25 percent in Hyderabad were occupied in regular jobs under government or private sector. In Hyderabad, around 78 percent children were attending school compared to just about 50 percent in Ludhiana. An overwhelming proportion of children, 36 percent are never enrolled in Ludhiana. For the children of 6-14 years of age, the dropout rate in Ludhiana (13%) was found higher than in Hyderabad (10%). While for 15-17 years of age group, it was found higher in Hyderabad (31%) than Ludhiana (24%). In Ludhiana (36.2%) a large number of children were never enrolled in schools. About 29 percent children of age 6-14 years in Hyderabad and 14 percent in Ludhiana were attending private schools. Gender differential in access to public and private schooling was found in Ludhiana, with just 4 percent of girls as compared to 22 percent of boys attending private schools. However, the gender differential was not found in Hyderabad. The major reason behind the dropout was inability to afford the education expenses in Ludhiana (61%) and Hyderabad.
(43%). Around 9 percent children in Ludhiana and 8 percent in Hyderabad dropped out as they were to look after the younger siblings. While, around 23 percent children in Ludhiana and around 25 percent children in Hyderabad reported that they could not understand what was being taught in the classroom.

**CONCLUSION:** The results reveal that the participation of children from slums in Hyderabad is high, more children attend private schools, study in English medium. In contrast participation of children from slums of Ludhiana in education is very low, seldom found in private schools and have to study in not so familiar language.

**KEYWORDS:** 1. EDUCATION 2. SLUM AREAS 3. SCHOOLING 4. DROP OUT 5. PRIVATE SCHOOL 6. GENDER DIFFERENTIAL 7. EDUCATION EXPENSES.
BACKGROUND: Making mistakes in mathematics is common and teachers usually ignore the mistake thinking children will overcome it. However, if a pattern of error is observed, it is an indication of some underlying problem in learning mathematics and should be addresses.

OBJECTIVES: Administering a standardized mathematics test – Arithmetic Diagnostic Test on children with hearing impairment studying in Grade IV; to analyze the errors (item-wise) on each mathematical concept made by the children in arithmetic diagnostics test.

METHODOLOGY: A total of 25 students (12 boys and 13 girls) participated in the study. All of them were deaf and hard of hearing (pre - lingually deaf) in the age group of 11-13 years.

RESULTS: Majority (92%) of children did not attempt word problems or tasks which required them to read and follow instructions. About 88 percent children do not know division. About 8 percent did not know division, so did multiplication instead of division. While 68 percent of children did not knew division when more than one step is involved. Owing to the inability to process verbal information, more than three-fourth (76%) of the respondents were not able to attempt it. While, 88 percent of the respondents had not learnt the skill of doing division involving mixed operations. Around 92 percent of respondents were not able to process verbal numerical information due to poor working memory.

CONCLUSION: Children making mistakes in mathematics is common, however, when the pattern of error is identified; need to be extra cautious for improving the performance of the children. Poorly developed place value concept had an effect on other concepts like addition where the children did not carry over the number to the next place value or in subtraction where they did incorrect borrowing. Multiplication and division were the poorly attempted task and word problems were not attempted or least attempted across all the concepts. The implication of the findings highlights developing a strong number concept among the children, developing their language and reading skills and empowering teachers for error analysis thus paving way for good remedial instruction.

Health


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BACKGROUND: Autism is a disorder with reduced communication skills, problems in social development and stereotyped behaviors. Individuals also have high incidence of intellectual disability. Earliest studies considered as rare with prevalence about 4.5 per 10000. About 1 percent of the general population is thought to have intellectual disability and according to data from the California Department of Developmental Services (DDS 18-19% of persons with intellectual disability have Autism Spectrum Disorder (ASD), Department of Developmental Services 1999).

AIM: To study the prevalence rate of Autism among children with intellectual disability.

METHODOLOGY: A group of children who were previously diagnosed to have intellectual disability were assessed by direct observation and screened by using the DSM IV-TR FOR AUTISM criteria. The children positive for autism in DSM IV-TR criteria were reassessed with age related checklist such as (i) Modified Checklist for Autism in Toddlers.(ii) Indian Scale For Assessment of Autism.

RESULTS: Thirty seven of the 157 children with intellectual disability less than the age of 14 years in the two training schools were determined to have Autism with a prevalence rate of 23.7 percent. Further prevalence of various disorders as Down Syndrome (28.8%), Cerebral Palsy (19.2%), ADHD (14.1%), Autism (23.7%) and other disorders (14.7%) among mentally retarded children was recorded. Autism prevalence rate remarkably showed predominance in males yielding a sex ratio of 3.1:1 (Males 28, females 9). From the results it was seen that 2.7 percent had Autism with cerebral palsy, 2.7 percent had Autism with Attention deficit Hyperactivity Disorder and remaining (94.6%) cases had autism with Mental Retardation. Also at the time of study, more prevalence of Autism was seen in the age group of 11 to 14 years (64.8%) and least in the age group of 1 to 4 years (2.7%). The prevalence of autism increases as age advances.

CONCLUSION: Intellectual disability and autism commonly coexist. Lack of awareness and similar clinical manifestations leads to under diagnosis of autism. These findings stress the importance of identifying children with autism at the earliest age so that early interventions can be made and the outcome may be more successful for such children.

BACKGROUND: Madhya Pradesh is one of the states where maternal mortality rates are as high as 700 or more (WHO, 2005). The report points out that these deaths can be reduced through wider use of key intervention and a “Continuum of care” approach for mother and child, beginning before pregnancy. Therefore, it is necessary to educate the youth and make them aware regarding role of health and nutrition before conception during pregnancy and later in lactation period for mother and child keeping them healthy.

OBJECTIVE: To know the postnatal care awareness among adolescent girls.

METHODOLOGY: Sample size comprised 341 Girls of class X & XI in each category i.e. English Medium School and Hindi Medium School students in Sagar District of Madhya Pradesh.

RESULTS: The study reveals that out of the total, 24.3 percent of students knew that the normal weight of a neonate should be 3 kg while 21.9 percent girls knew 2.5 kg, and 18.4 percent replied as 3.5 kg. Only 40.7 percent of girls were having knowledge of healthy effects of colostrums while 24 percent did not have any knowledge of colostrums. 27.2 percent of English medium students knew that the normal weight of a neonate should be 3 kg while 19.3 percent girls knew 2.5 kg, 21.5 percent students of Hindi medium knew that the normal weight of a neonate should be 3 kg while 24.4 percent girls knew 2.5 kg. It was found that 38.1 percent girls were aware that six months and 22.5 percent girls knew above six months was correct age for introduction of semi solid supplementary food to infants. 76.5 percent girls accepted salt sugar solution should be given to child to correct dehydration at home. 90.3 percent girls were aware of oral rehydration solution while 9.6 percent do not have any knowledge of oral rehydration solution.

Regarding immunization, out of total sample, 91.7 percent were aware that children should be vaccinated. Majority of girls (86.3%) in English medium schools were aware that children should be vaccinated. Four fifth (80%) of the girls understood that there was no ill effect of vaccination. More than half (58.1%) girls agreed that vaccination can be given during illness. One-fifth (20.6%) advocated that vaccination cannot be given when children were sick. In Hindi medium 86.3 percent girls are aware that children should be vaccinated. 66.4 percent girls correctly accepted there was no ill effect of vaccination. 40.3 percent girls agree that vaccination can be given during illness, while 22.1 percent advocates that vaccination cannot be given when children were sick.
CONCLUSION: The study highlights the important information like colostrums, nutritional requirement and immunization are still lacking on their part.

BACKGROUND: Increasing survival rates in children with Congenital Heart Disease (CHD) have been associated with shift in focus from heart-related morbidity and death to concern for brain integrity, and developmental and neurological outcomes have come under increasing scrutiny. These children are at risk of developmental problems due to events that occur during intrauterine life, at surgery, or during growing years as poor perfusion, shock, acid-base disturbance etc. making children with congenital heart diseases (CHD) to be at high risk for neurodevelopmental delay.

OBJECTIVES: To evaluate the neurodevelopment status of children with congenital heart diseases and its associated factors.

METHODOLOGY: The descriptive study with a sample size of 75 children in the age group of 6-30 months, who presented with symptoms and signs suggestive of congenital heart disease in the New Delhi hospital, were included. A neurodevelopmental assessment was done using Developmental Assessment Scale for Indian Infants (DASII).

FINDINGS: Majority of children (62.6%) in the study group were in the younger age group (6-12 months), with 29.4 percent older than 18 months. 75 children (53 males) with CHD were enrolled. Acyanotic CHD was seen in 51 children with Ventricular Septal Defect (VSD) in 47 percent, and Tetralogy of Fallot was the commonest cyanotic CHD (25%). Developmental delay was seen in one fourth (25%) of these children, more in the motor domain (48%) than in mental (12%). Mean motor and mental DQ in acyanotic CHD was 77 and 84, respectively; and 65 and 85, respectively in cyanotic CHD. The mean Motor DQ was significantly lower in the cyanotic group than acyanotic group (P=0.048). However, mean Mental DQ was not different among acyanotic and cyanotic CHD groups (P=0.92). Among the CCHD, 16 (66%) were in moderate group and 8(33%) in higher group. The motor DQ was found to be in severe group whereas mental DQ was not much different across the group. Neurological abnormalities were found in 6 children out of whom 3 children were in high risk category.

CONCLUSION: In the study the high rate of developmental delay was seen among children with CHD. Screening and evaluation of developmental delay in pediatric CHD population should be done to maximize their overall development.

KEYWORDS: 1.HEALTH 2.CONGENITAL HEART DISEASE (CHD) 3.SURVIVAL RATES 4.HEART-RELATED MORBIDITY 5.NEURODEVELOPMENTAL DELAY 6.MOTOR DEVELOPMENT QUOTIENT 7.VENTRICULAR SEPTAL DEFECT (VSD) 8.CYANOTIC CONGENITAL HEART DISEASES (CCHD) 9.ACYANOTIC CONGENITAL HEART DISEASES (ACHD) 10.DEVELOPMENTAL ASSESSMENT SCALE FOR INDIAN INFANTS (DASII).
INTRODUCTION: Integrated Child Development Services (ICDS) programme provides package of services, comprising supplementary nutrition, immunization, health check-ups referral services to children below 6 years of age, expectant and nursing mothers. Non formal pre-school education is also imparted to children of age group 3-6 years and health nutrition education to women age group 15-45 years and adolescent girls with reproductive health, hygiene and sanitation. The availability and acceptability of immunization and health services are crucial for protection and maintaining the health of children, nursing mother and adolescent girls.

OBJECTIVES: To assess the accessibility as well as acceptability of programme and compare its level between the urban, rural beneficiaries.

METHODOLOGY: A cross sectional comparative study was conducted in one rural and one urban ICDS project in Jabalpur district. 25 Anganwadi Centres (AWC) were selected by lottery method from each of the rural and urban ICDS projects. Under each AWC, 10 beneficiaries were interviewed for assessing about various health services. The total sample size was 500 respondents, 250 each from rural and urban respectively.

RESULTS: Out of 250 rural respondents only 139 (55.6%) said that immunization sessions were held regularly at AWC whereas 213 (85.2%) urban respondents agreed that immunization sessions were held at urban AWC. 183 (93.4%) rural respondents testify that immunization cards are also being provided to the mothers / children. Equally satisfactory are urban respondents 193 (96.5%) 195 (78%) rural respondents reported that immunization scheduled was well communicated and displayed through information, education and communication (IEC) materials. Whereas the presence and availability of IEC materials is far better in urban AWC with 230 (92%) respondents agreeing to it. 177 (70.8%) urban respondents are more satisfied about the immunization services provided at the AWC in comparison with 169 (67.6%) rural respondents. The immunization session was found to be abysmally poor at rural AWC as only 59 (23.6%) rural respondents reported that helpers were helping in collection of children for immunization, in comparison with a better condition in urban anganwadis where 162 (64.8%) respondents agreed for collection of children by helpers on the day of immunization. 166 (66.4%) urban respondents reported that medicines for minor ailments were being provided at AWC but only 127 (50.8%) rural respondents endorsed it. There was a concern regarding the health checkup at AWC and it was
reported that it was miserably poor in both rural and urban AWC. This was supported by the fact that only 54 (21.6%) rural respondents reported that health checkup were regularly organized at AWC in comparison with only 41 (16.4%) urban respondents made acceptance to it. About counselling and health education service were concerned rural beneficiaries reported fairly good as education about reproductive health 203 (81.2%) rural respondent reported being provided at AWCs compared to only 168 (67.2%) by urban respond. 173 (69.2%) rural respondents also agreed drugs for common ailments were being distributed by AWWs in comparison to 160 (64%) urban respondents, 167(66.8%) rural respondents reported that home visits by AWW were being given in comparison to only 133 (53.2%) urban respondents, 90 (36%) rural and 91 (36.4%) urban respondents reported that the referral services were available. Regarding the response about the attitude and satisfaction of work of AWWs all 250 (100%) rural respondent reported as good whereas only 233 (93.2%) urban respondents accepted it. 220 (88%) urban beneficiaries were fully satisfied with the work of AWWs and various services provided by them in comparison to 216 (86.4%) rural respondents. The overall satisfaction about ICDS services was found fairly satisfactory among 189 (75.6%) rural respondents in comparison to 147 (58.8%) urban respondents.

CONCLUSION: The immunization and drug availability need to be strengthened in rural anganwadis whereas urban anganwadis need for efficient health education health checkups and services of family planning with drug distribution. The referral services, registration need to be strengthened in both the rural, urban AWC.


BACKGROUND: An Anganwadi is the focal point for delivery of ICDS services to children and mothers. An Anganwadi normally covers a population of 1000 in both rural and urban areas and 700 in tribal areas. Services at Anganwadi center (AWC) are delivered by an Anganwadi Worker (AWW), who is a part-time honorary worker. The Anganwadi worker (AWW) is the community based voluntary frontline worker of the ICDS programme.

OBJECTIVES: To study the profile of Anganwadi Workers (AWWs); to assess knowledge of AWWs & problems faced by them while working.

METHODOLOGY: Anganwadi Centres were selected by stratified sampling technique. From each sector, 20 percent AWWs were enrolled into study.

RESULTS: Maximum number of workers, 11(39.28%) were in the age group of 41-50 yrs, 7 (25%) each in the age group of 31-40 years and more than 50 years. Maximum number of workers (82.1%) had an experience of more than 10 years. Lowest number i.e., 3 (10.7%) belonged to the age group of 20-30 yrs. Almost half (53.6%) of AWWs were matriculate. Only 3.57 percent AWWs were post-graduate. Majority (82.1%) of AWWs had an experience of more than 10 yrs. They had the best knowledge about the component of nutrition and health education (77.1%) while least about supplementary nutrition (29.5%). More than three-fourth (78.9%) of AWWs had a knowledge assessment score of above 50 percent as per the questionnaire provided. Three-fourth (75%) workers complained of inadequate honorarium. While only 14.3 percent complained of lack of help from community. Other problems complained by 32.1 percent workers were infrastructure related due to inadequate space for displaying Non Formal Pre School Education (NFPSE) posters or other posters related to nutrition and health education. Logistic supply related problems were complained by 39.28 percent. Work overload complained by half (50%) as their work involves daily home visits and a lot of record maintenance.

CONCLUSION: The knowledge increases with experience as an AWW, but has no relation with their educational qualification. Problems felt by them were mainly due to inadequate honorarium and excess work load. So, timely increments in honorarium should be considered.

KEYWORDS: 1.ICDS 2.ANGANWADI CENTER (AWC) 3.ANGANWADI WORKER (AWW) 4.NUTRITION AND HEALTH EDUCATION 5.RECREATIONAL ACTIVITIES 6.KNOWLEDGE ASSESSMENT SCORE 7.SUPPLEMENTARY NUTRITION 8.NON FORMAL PRE SCHOOL EDUCATION (NFPSE) 9.INADEQUATE HONORARIUM.
**BACKGROUND:** One of the major global health problem faced by the developing countries is malnutrition. Malnutrition denotes impairment of health arising either from deficiency or excess or imbalance of nutrients in the body. Anthropometry has become a practical tool for evaluating the nutritional status of populations, particularly of children in developing countries and nutritional status is the best indicator of the global well-being of children. Primary school age is a dynamic period of physical growth as well as of mental development of the child. Mothers’ knowledge of child nutrition would have a significant effect on their children's nutritional status.

**OBJECTIVES:** To study the overall nutritional status of the children of private primary school and to correlate it with awareness of mothers regarding nutritious food.

**METHODOLOGY:** A Cross-sectional study was conducted on 176 students (64.3% were male and 35.7% female) among the children of class 1 to class 5 during the month of Jan-Feb 2014 in a private school in Maharashtra.

**FINDINGS:** Majority of the mothers were having higher education with half (50%) of them nonworking (housewives 72%) and belonged to family with total monthly income of Rs. 10,000 (79%). Majority of children were drinking milk daily minimum one time (60%), brushing twice daily (61%), playing outdoor more than 1 hour (70%), washed hand after toilet (100%), after playing (98%) and before eating (98%). As it shows on one side majority of them were following good life practices but at the same time all of them were found eating junk foods daily (56%). Physical examination of children’s showed 4 percent were having pallor and 15 percent dental caries. Nearly two-third of mothers were found aware about nutritious contents of certain common foods used by them for children’s regularly. Mean values of weight, height and BMI percentile of children class wise, showed increasing values with increase in grade of classes. Whereas Weight for age calculation found that nearly one-fifth (19.9%) children were undernourished. According to Indian Academy of Pediatrics (IAP) classification, Height for age
calculation showed 8 percent as stunted (Waterlow’s classification) and BMI percentile displayed one-tenth (10.2%) as overweight and a little less (5.7%) as obese. There was no significant difference found between proportions of maternal knowledge about nutritious foods and malnutrition among children.

**CONCLUSION:** Private schools, which are usually habited by upper socio-economic status children, were found undernourished and also equally over nourished. Maternal knowledge about nutritious foods was good but was not translated in to proper action to overcome the dual burden of malnutrition. Each and every child is a victim for dual burden of malnutrition irrespective of socio-economic status, maternal good knowledge about nutritious food and there is need to be attended equally.

BACKGROUND: Malnutrition erodes the foundations of global economy and progress by destroying the potential of millions of children worldwide. Causes of malnutrition are varied. Most common cause is faulty feeding. Fault in feeding practices can start from birth, if not fed exclusively on breast milk till 6 months and thereafter with inappropriate complementary feeding practices.

OBJECTIVE: To compare the nutritional status of children in urban and rural areas at the age of one year and to study the association of socio-demographic factors, infant characteristics and infant feeding practices with the child’s nutritional status.

METHODOLOGY: A cross-sectional study was done on 380 rural mothers and 400 urban mothers having one year old child at urban and rural field practice areas of Department of Community Medicine, J. N. M. C., Belgaum.

FINDINGS: Mean age of mothers was 23.45 ± 2.34 years in urban and 23.20 ± 2.64 years in rural areas. 173 (43.3%) urban and 96 (25.3%) rural infants with a weight less than 2.5 kg at birth. 65 (16.3%) urban and 58 (15.3%) rural mothers had practiced exclusive breast feeding till 6 months of age. 130 (34.2%) rural mothers had delayed the initiation of complementary feeding to beyond 6 months of age. Wasting and stunting was more among rural than urban children. Mothers who practiced exclusive breast feeding at 6 months were as low as 16.3 percent in urban and 15.3 percent in rural area. It was observed that, 124 (31%) urban mothers and 36 (9.5%) rural mothers gave minimum acceptable diet (≥ 4 food groups and also giving it minimum number of times a day) to their infants.

CONCLUSION: Nutritional status of urban infants is better than the rural infants. Various socio-demographic factors, infant characteristics and infant feeding practices were associated with the infants' nutritional status.

KEYWORDS: 1. NUTRITION 2. EXCLUSIVE BREASTFEEDING 3. CHILD’S NUTRITIONAL STATUS 4. COMPLEMENTARY FEEDING 5. WEIGHT FOR AGE 6. MID UPPER ARM CIRCUMFERENCE 7. MINIMUM ACCEPTABLE DIET.
Zinc Supplementation in Preterm Neonates and Neurological Development: A Randomized Controlled Trial. Indian Paediatrics, Vol.52(11): 951-955.

G19441

BACKGROUND: Zinc may be essential for brain function as well as for growth in the foetus and child. Zinc Deficiency may be particularly prevalent to early development, growth and function of many organ systems including the neurological system. Studies have shown reduced levels of zinc in low birth weight infants that may account for increased morbidity and growth failure such neonates.

OBJECTIVE: To assess the effect of zinc supplementation on neurodevelopment and growth of preterm neonates.

METHODOLOGY: The randomized controlled trail conducted on 100 neonates (<7 days) in a hospital. Neonates were divided into zinc and control group with 37 neonates in zinc group and 35 neonates in control group. Convenience Method sample was used for sample selection. Zinc syrup was given daily till 3 months. Adverse effect of Zinc supplements (vomiting, following administration) were enquired at each visit. All the infants were exclusively breastfeed during entire study.

FINDINGS: At 40 weeks post conceptional age, none of the infant in zinc and 13 percent in controlled group showed moderate deficient in attention span (P=0.02). At 3 months corrected most infants had normal alertness and attention in both groups, with moderate deficient in 3 percent, in zinc group and 6 percent in the controlled group. During the post-discharge follow up till 3 month corrected age, infants in zinc group had fewer re-hospitalization episodes (8 vs. 19); episodes of respiratory infections were 2 vs. 6, diarrhoea 3 vs 8 and sepsis 3 vs. 5 (OR 0.23; CI 0.08-0.64; P=0.05). Post discharge mortality was 4 in control group (9.3%) compared to 1 in zinc group (2.4%) (OR 0.21). The 4 deaths in control group were due to respiratory infection, diarrhea, septicemia and unidentified cause in one neonate each. The death in zinc group was due to sudden infant death syndrome. Higher number of controls showed signs of hyper-excitability at 14 week post conceptional age (p=0.0001) and 3 month corrected age (p=0.003). Serum alkaline phosphate level was higher in study group compare than control group.

CONCLUSION: The strength of the study was a robust tool for early evaluation for neurodevelopment status for assessing the efficacy of neuro protection, it is important to evaluate occurrence of early transient signs before they disappear due to neuro plasticity.

BACKGROUND: The proportion of children in the general population who are overweight and obese has doubled over the past two decades in both developed and developing countries. As obesity in the adults is difficult to treat and as there are long term adverse effects associated with childhood obesity, prevention of childhood obesity has become a public health priority.

OBJECTIVE: To compare prevalence of obesity among school going adolescents in government and private schools.

METHODOLOGY: A cross sectional study was conducted on 1800 students aged 10-16 years studying in 12 schools of Bhubaneswar. Six government and six private schools were chosen randomly. Anthropometric measurements such as height, weight, waist circumference (WC), hip circumference (HC), neck circumference (NC) were measured by using standard measuring equipment's. Body mass index (BMI) was calculated. Blood pressure was measured by using sphygmomanometer.

FINDINGS: The age (SD) was 13.0 (1.43) year, with 51.7 percent boys. Majority of the adolescents were overweight/obese (27.8%) followed by obesity (11.4%). The prevalence of overweight/obesity among private school children (45.2%) was significantly higher than government schools (10.5%). The present study also revealed that the anthropometric measurements were significantly higher among private school adolescents. While both systolic and diastolic blood pressures were significantly different among private and government school adolescents (P<0.001), which poses a serious concern.

CONCLUSION: A differential strategic plan is needed, especially for private school, in terms of periodic screening followed by counselling of parents and children. School health programs with special focus educating students and teachers regarding possible adverse effect of overweight and obesity should be carried out.

B. Research Abstracts on Child Protection

Child Labour


**Introduction:** By performing work when they are too young for the task, children unduly reduce their present welfare or their future income earning capabilities, either by shrinking their future external choice sets or by reducing their own future individual productive capabilities. Under extreme economic distress, children are forced to forego educational opportunities and take up jobs which are mostly exploitative as they are usually underpaid and engaged in hazardous conditions.

**Objectives:** To examine child labour in Tamil Nadu; to find out the general socio economic conditions of the child labour in Tuticorin District; and; to investigate the problem faced by child labour in their working places in study area.

**Methodology:** Data has been collected through primary and secondary sources. The sample size of the study was 100 child labours, out of which 50 were male and 50 female child labours in Tuticorin District.

**Results:** Nearly 49 percent of the literates had less than five years of schooling and just 8 percent of the child labourers completed six years of schooling. The age structure revealed that children in the age group 6-10 years constituted about 13 percent of the total respondents. But gender wise females were more occupied than males into child labour. Most of the working children being in the age group 11–14 years contributed 70 percent out of which 42 percent was female child labour. Occupation wise classification detailed that nearly 27 percent child labours were engaged in hotel – table cleaning, vessels cleaning and helping to cook. Majority of male child labour were engaged in hotel works. 32 percent of the respondents were associated with textile shops and 23 percent of the female child labour were found working in textile shops. Only 5 percent of the child labour worked in housekeeping. Majority of the child labour was working in brick industry, contributing 35 percent out of which female were 18 percent. The contribution of child labour to the family income was nearly 95 percent of the households in low-income range (below Rs. 5000 per month). While 12 percent contributed less than 40 percent of the total family income. Children in 80 percent of the households contribute 50 percent of the total income. 95 percent of child labour faced problems to working long hours and 85 per cent of the working children were affected to latter payment.
Conclusion: The Government of India has implemented the Child Labour Act in 1986 that outlaws child labour in certain areas and sets the minimum age of employment at fourteen. This Act falls short of making all child labour illegal, and fails to meet the International Labour Organisations guideline concerning the minimum age of employment set at fifteen years of age.

Keywords: 1.CHILD LABOUR 2.LITERACY 3.HEALTH 4.EDUCATION 5.SOCIO ECONOMIC CONDITIONS 6.CHILD PROTECTION 7.BRICK INDUSTRY 8.GIRL CHILD LABOUR 9.CHILD LABOUR ACT
Child Abuse


**BACKGROUND:** India is home to almost 19 percent of the world’s children; nearly 40 percent of its population and 69 percent of Indian children are victims of child abuse. Child abuse is one of the most common types of violence against children. According to WHO: Child abuse or maltreatment constitutes all forms of physical and/or emotional ill-treatment, sexual abuse, neglect or negligent treatment or commercial or other exploitation, resulting in actual or potential harm to the child’s health, survival, development or dignity in the context of a relationship of responsibility, trust or power. Child abuse in India, according to the NCPCR (National Commission for Protection of Child Rights) report, increased to 763 for 2009-10 from 35 in 2007-08.

**OBJECTIVES:** To assess the knowledge regarding child abuse among parents residing in selected rural areas; to assess the knowledge regarding child abuse among parents residing in selected urban areas; to compare the knowledge regarding child abuse among parents residing in selected rural and urban areas; to determine the association of knowledge regarding child abuse among parents residing in selected rural areas with their selected socio-demographic variables; to determine the association of knowledge regarding child abuse among parents residing in selected urban areas with their selected socio-demographic variables.

**METHODOLOGY:** In the study, non-probability method, purposive sampling technique was adopted to select sample. The sample size of the study comprised of 100 parents, the target population was parents of children below 12 years, (50 from rural, 50 from urban)

**RESULTS:** In rural area, 22 (44%) parents were in age group 30-40 years, 32 (64%) were females and 21 (42%) belonging to Sikh religion. Majority (38%) of the parents were educated up to 11th - 12th standard, 26 (52%) parents were house maker, 23 (46%) parents earning Rs. 5,001/- to Rs. 10,000/- per month, 31 (62%) parents lived in nuclear families and 22 (44%) parents had 2 children. Majority 49 (98%) parents had no history of personal experience of child abuse and 24 (48%) parents had no previous source of information regarding child abuse. In urban area 27 (54%) parents were in age group 20-30 years, 34 (68%) were females and 32
(64%) belonging to Sikh religion. Majority 26 (52%) of the parents were graduate, 25 (50%) parents were home maker, 25 (50%) parents earning Rs. 10,001/- - 15,000/- per month, 33 (66%) parents lived in nuclear families and 28 (56%) parents had 1 child. Majority 48 (96%) had no history of personal experience of child abuse and 19 (38%) parents had electronic media as a previous source of information regarding child abuse. In rural area, knowledge regarding child abuse, 29 (58%) parents were having average knowledge followed by 13 (26%) parents having good knowledge and 08 (16%) were having below average knowledge. Corresponding knowledge in urban area 30 (60%) parents were having good knowledge (24-34) followed by 15 (30%) parents having average knowledge (14 - 23) and only 05 (10%) were having below average knowledge regarding child abuse.

CONCLUSION: There was significant association of the knowledge regarding child abuse among parents residing in rural areas and urban areas with the selected socio-demographic variables such as educational status, family income per month and source of information. Parents residing in urban areas had more knowledge regarding child abuse than parents residing in rural areas.

KEYWORDS: 1.CHILD ABUSE 2.VIOLENCE AGAINST CHILDREN 3.WHO 4.EMOTIONAL ILL-TREATMENT 5.SEXUAL ABUSE 6.NEGLECT 7.NEGLIGENT TREATMENT 8.CHILD PROTECTION 8.NCPCR.
Health


**BACKGROUND:** Globally around, 25-30 percent of cases of pediatric acute liver failure (PALF) are registered in infants. Metabolic Liver diseases (MLD), as a cause of acute liver failure (ALF) have not been studied in India. While the common etiologies in older infants varies from MLD and hemophagocytic lymphohistiocytosis (HLH) in early infancy; and drug induced liver injury (DILI) and viral hepatitis. The poor outcome of ALF seen in infants and young children could be due to suspect MLD, better understanding and knowledge of their clinical as well as biochemical is required.

**OBJECTIVES:** To study the etiological spectrum of acute liver failure in infants and young children and to identify clinical and biochemical markers for metabolic liver disease (MLD).

**METHODOLOGY:** This study was conducted at Department of Pediatric Hepatology, in a tertiary care specialized centre for liver diseases. All children less than 3 years of age, with liver dysfunction and INR ≥2 were included in the study. They were managed as per the departmental protocol. Included children were divided based on the etiology into 2 groups: MLD and non MLD group. Comparison analysis (MLD vs. non MLD) of the clinical and biochemical parameters was done.

**RESULTS:** There were 30 children under 3 years of age with acute liver failure (ALF) with median age of 12.5 months. 15 children were less than 12 months. MLD (33%) and hemophagocytic lymphohistiocytosis (HLH) (17%) together accounted for half of the cases of ALF in children below 3 years of age. The other common etiologies were drug induced liver injury and acute viral hepatitis A. Etiology remained indeterminate in 3 cases (10%). Comparative analysis of the clinical and biochemical parameters between MLD and non MLD group showed significant difference between the two groups in the median values of age (p = 0.014), bilirubin (p = 0.017), jaundice to encephalopathy (JE) interval (p = 0.039) and blood sugar (p = 0.001). Suggestive family history (OR 3.73, 95%CI 1.67–8.30), developmental delay (OR 4.4 95%CI 2.03–9.51), presence of diarrhea/ vomiting (OR 3.28, 95%CI 1.32–8.13) in the history and presence of urinary non glucose reducing substance (NGRS) (OR 15.5, 95%CI 2.26–106.87) were also significantly associated with MLD group. Only 40 percent children survived with native liver.

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CONCLUSION: MLD and HLH account for majority of ALF in infants. About 10 percent of cases remain indeterminate. Viral hepatitis is more common in young children. Apart from clinical indicators, young age, high bilirubin, synthetic dysfunction, low sugar and NGRS in urine indicate MLD as a cause. Survival with native liver was low.

KEYWORDS: 1. HEALTH 2. INFANTS 3. ACUTE LIVER FAILURE (ALF) 4. ETIOLOGY 5. METABOLIC LIVER DISEASES 6. HEMOPHAGOCYTOSIS LYMPHOHISTIOCYTOSIS (HLH).
C. Women and Gender Issues

Health


BACKGROUND: Menstruation is the threshold point of a sequence of measures which begins in the cerebral cortex and hypothalamus and ends at the uterine and ovarian tissues in the hypothalamic-pituitary-ovarian axis (HPO axis). The absence of menses by age 14 in the normal growth and delay in the secondary sexual development is clinically defined as Primary Amenorrhea (PA).

OBJECTIVES: To study the presentation, clinical and radiological findings, management and outcome of the patients with primary amenorrhea.

METHODOLOGY: A prospective study with a sample size of 33 patients suffering with primary amenorrhea in Civil Hospital, Ahemadabad. Cases were subjected to clinical examination, radiological studies (USG, MRI, 2-D Echo, X-rays, IVP etc.), karyotype examination.

RESULTS: Majority of the subjects (33%) were 19 years, while all of them were in the age group of 13-19 years. 27 (82%) patients were unmarried and 6 (18%) were married. All patients had PA while majority (57.6%) had associated cyclical abdominal pain of varying severity. Findings of USG KUB reveal that majority (72%) were normal; there was absence of one kidney in 12 percent of respondents, followed by one ectopic kidney and other normal (9%). More than half (54%) patients were diagnosed having müllerian duct anomalies manifesting as primary amenorrhea. 13 patients had MRKH syndrome. In patients with primary amenorrhea associated with müllerian duct anomaly, urogenital dysplasia was associated with. Total 9 (27%) patients had associated renal anomalies.

CONCLUSION: Amenorrhea (primary or secondary) has got multifactorial etiology. For the patient with primary amenorrhea, the physical examination should focus on pubertal development and possible genital outflow obstruction which was most common finding in this study. Müllерian agenesis, a congenital malformation of the genital tract is the second most common cause of primary amenorrhea. It is an uncommon but not rare anomaly. Uterine abnormalities are frequently unrecognized at birth and are unreported. Early surgery offered to the patient may reduce patients suffering, help restore a patent outflow tract and may preserve fertility in some cases.

KEYWORDS: HEALTH PRIMARY AMENORRHEA ADOLESCENT PUBERTY DEVELOPMENT UROGENITAL DYSPLASIA MRKH SYNDROME IMPERFORATE HYMEN
BACKGROUND: Although India became the very first country to initiate its first Maternal and child health programme in 1951, the current scenario remains grim. According to the NFHS-3 data, the percentage of institutional deliveries is staggering around 41.1 percent. Similarly the prevalence of under nutrition in children less than five years is around 43 percent and 55 percent for National and Madhya Pradesh respectively. One of the prime reasons for this failure is non utilization of RCH services delivered by the various governmental institutions.

OBJECTIVES: To find out the level of utilization of various RCH services; and; to find out the level of client satisfaction among the utilizers of the above services.

METHODOLOGY: A Cross Sectional study carried out in 10 slum areas of Gwalior city. The total sample size was 1410 participants. The sample included all the pregnant women who were ever pregnant in last one year or were having a child of one year or below.

RESULTS: Majority (91.6%) of women had at least once contracted any health care provider during the ANC period for ANC check-up. Majority of the respondents got delivered in the government institutions (80.7%) and the remaining (19.3%) got delivered in private sector. Nearly one-third (30%) of the respondents reported that either the birth weight of their child was not taken or was not told to them. Only one-fourth (26.5%) of the respondent had started breast feeding within an hour of normal birth. On examination of the current vaccination status, it was noted that only 36 percent of the children were fully vaccinated for their age whereas 47.7 percent were partially vaccinated.

CONCLUSION: The study envisages a large gap in the utilization of the reproductive and child health services. There is a need to develop policies that are centered around younger women so that their participations could be increased. The present study also concludes that the number of staff and doctors involved in government sector should be increased so that they can pay more time on their patients.


**BACKGROUND:** Poor menstrual hygiene in developing countries has been an insufficiently acknowledged problem. Menstruation is still regarded as something unclean or dirty in Indian society and it is strongly related with misconceptions and cultural restrictions. Till now, the poor menstrual hygiene in developing countries has been an insufficiently acknowledged problem. Researches confirm that with safe menstrual hygienic practices adolescents were less vulnerable to reproductive tract infections (RTIs). The MDG 2, achieving universal primary education and MDG 3 on promoting gender equality and empowering women are vital for achieving almost all the other MDGs. The best place to translate the plans concerning menstrual hygiene is in the context of educational institutions.

**OBJECTIVES:** To assess the awareness about menarche and their sources of information before its onset; to find out the prevailing practices for menstrual hygiene among adolescent girls; to ascertain the association of awareness of menstruation before menarche and practices for menstruation hygiene with educational status of respondents and their mothers; to assess the relative contribution of educational status of respondents and their mother son the likelihood of using unhygienic practices during menstruation.

**METHODOLOGY:** Community – based cross-sectional study using a multistage cluster sampling method was used to select the sample for the study, conducted among 650 adolescent girls in the field practice area of rural health and training center in a block in Varanasi district during January-June, 2011.

**FINDINGS:** The findings reveal that out of the total 650 respondents, 590 (90.8%) had attained menarche at the time of interview and only one-third of the respondents (29.4%) were aware of menstruation before menarche. Mostly sisters (55%) played the key role in providing information to them. More than half of them belonged to the age group 15-17 years. Only 23 percent were found married and the majority were below 18 years among married adolescents. Only 31 percent of respondents were using sanitary pads during menstruation. Among those respondents who were using clothes, 17.6 percent were washing and reusing it. Majority (95%) of the respondents were educated with one-fourth completed high schools, 18 percent in intermediate, and 11 percent were pursuing graduation. Only about 5 percent never went to school and 31 percent were school dropouts. All school dropout respondents were using clothes during menstruation and disposed the clothes either in the regular dustbin or by burying in the ground. Respondents who were educated up to high school and above were maintaining more hygiene (using sanitary pad) during menstruation as compared to middle school and up to primary educated respondents, and the difference was found to
be highly significant (P < 0.001). Respondents whose mothers were literate (62%) maintained more hygienic practices in comparison to those whose mothers were illiterate (13%). Self-reported Reproductive Tract Infection (RTI) was observed in respondents not maintaining hygienic practices (6.6%) as compared to those maintaining hygiene (2.6%).

**CONCLUSION:** The awareness about menarche was still poor, more than two-third of the respondents was not aware about menarche before its onset. In the present study, the role of teacher was found negligible in imparting awareness on various issues related to menstruation. Study pointed towards the need for information on menstruation, especially about menarche before its onset and encouragement for the use of sanitary napkins as an absorbent. Teachers and parents can play a vital role in informing them about changes during adolescence, especially about menarche and other issues related to menstruation.

**KEYWORDS:** 1. HEALTH 2. HYGIENE PRACTICES 3. MENSTRUAL HYGIENE PRACTICES 4. ADOLESCENT GIRLS 5. MENARCHE 6. REPRODUCTIVE TRACT INFECTION (RTI) 7. SANITARY PADS.
BACKGROUND: Uterine rupture is an obstetrical emergency associated with severe maternal and perinatal morbidity and mortality. Spontaneous uterine rupture is an extremely rare event, estimated to occur in one of 8,000 to one of 15,000 deliveries. Various factors which are associated with increased risk of uterine rupture include congenital uterine anomaly, grand multiparity, previous uterine surgery, fetal macrosomia, fetal malposition, labor induction, obstructed labor, uterine instrumentation, attempted forceps delivery, external version, and uterine trauma. Due to multiple reason including, lack of health education, ignorance, or poverty; significant proportion of women do not get regular antenatal checkup, preferring home delivery by traditional birth attendant instead of visiting the hospital.

OBJECTIVES: To identify the obstetric, incidence, and causes of uterine rupture, management modalities, the associated maternal and perinatal morbidity and mortality in one of the largest tertiary level women care hospital in Delhi.

METHODOLOGY: A 7-year retrospective analysis of 47 cases of uterine rupture was carried out at department of obstetrics and gynecology, Kasturba hospital, New Delhi. The charts of these patients were analyzed and the data regarding demographic characteristics, clinical presentation, risk factors, management, operative findings, maternal and fetal outcomes, and postoperative complication was studied.

FINDINGS: During the study period, 47 cases of uterine rupture were diagnosed out of total 76,766 deliveries. 36 patients (76.6%) were unbooked in the hospital and 11 (23.4%) were booked cases. The mean (range) age of the patients diagnosed with uterine rupture was 29.2(21-37) years. The mean (range) parity was 2.3 (1-7). The mean (range) gestational age was 37.4 (34-41) weeks. The incidence of rupture was calculated to be one in 1,633 deliveries (0.061%). The incidence of rupture was 0.318 percent in women with history of prior uterine surgery and was 0.02 percent in women without history of any prior uterine surgery. Among the cases with history of prior uterine surgery, the vast majority of patients had prior low transverse cesarean section (84.8%). There was only one patient with prior hysterotomy.
CONCLUSION: Uterine rupture is a major contributor to maternal morbidity and neonatal mortality. Four major easily identifiable risk factors including history of prior cesarean section, grand multiparity, obstructed labor, and fetal mal presentations constitute 90 percent of cases of uterine rupture. Identification of these high risk women, prompt diagnosis, immediate transfer, and optimal management needs to be overemphasized to avoid adverse fetomaternal complications.

KEYWORDS: 1.HEALTH 2.CESAREAN SECTION 3.HYSTERECTOMY 4.PERINATAL MORBIDITY OBSTRUCTED LABOR 5.PERINATAL OUTCOME 6.RUPTURE OF GRAVID UTERUS 7.UTERINE RUPTURE.
BACKGROUND: The risk factors for urinary tract infection (UTIs) from development countries are not applicable to women from developing world. There is no definitive explanation for why only some women get UTIs, and why recurrences tend to occur only in some subjects.

OBJECTIVES: To analyze the behavioral practices and psychosocial aspects pertinent to women in a developing country and assess their association with acute first time or recurrent UTI.

METHODOLOGY: Sexually active premenopausal women with their first (145) and recurrent (77) cystitis with Escherichia coli as cases and women with no prior history of UTI as healthy controls (257) were enrolled between June 2011 and February 2013. Questionnaire based data was collected from each participant through a structured interview during the visit to the clinic.

FINDINGS: Using univariate and multivariate regression models, independent risk factors for the first episode of cystitis when compared with healthy controls were (presented in odds ratios [ORs] with its 95 percent confidence interval [CI]): Anal sex (OR = 3.68, 95% CI = 1.59-8.52), time interval between last sexual intercourse and current episode of UTI was <5 days (OR = 2.27, 95% CI = 1.22-4.23), use of cloth during menstrual cycle (OR = 2.36, 95% CI = 1.31-4.26), >250 ml of tea consumption per day (OR = 4.73, 95% CI = 2.67-8.38), presence of vaginal infection (OR = 3.23, 95% CI = 1.85-5.62) and wiping back to front (OR = 2.52, 95% CI = 1.45-4.38). Along with the latter three, history of UTI in a first-degree female relative (OR = 10.88, 95% CI = 2.41-49.07), constipation (OR = 4.85, 95% CI = 1.97-11.92) and stress incontinence (OR = 2.45, 95% CI = 1.18-5.06) were additional independent risk factors for recurrent cystitis in comparison to healthy controls.

CONCLUSION: Most of the risk factors for initial infection are potentially modifiable but sufficient to also pose risk for recurrence. Many of the findings reflect the cultural and ethnic practices in the country.

KEYWORDS: 1. HEALTH 2. PREMENOPAUSE 3. BEHAVIORAL PRACTICES 4. PSYCHOSOCIAL ASPECT 5. HOST FACTORS 6. RECURRENT URINARY TRACT INFECTION 7. SEXUAL BEHAVIOR.
BACKGROUND: Pregnancy is a state of increased demand of calcium, which should be equally met. 99 percent of the total body calcium consists of bone, while remaining 1 percent of the extracellular space. The Recommended Dietary Allowance (RDA) for calcium for pregnant women is 1200mg/day. Several complications during pregnancy have been attributed to the low level of calcium. They include both maternal complications such as preeclampsia and poor bone formation in the mother, and fetal complication such as low birth weight, increased neonatal mortality and high blood pressure in the child.

OBJECTIVE: To estimate the dietary calcium intake and serum calcium status & association with the preeclampsia among the pregnant women in the third trimester.

METHODOLOGY: A cross-sectional study was performed on 217 pregnant women registered in a Hospital. Pregnant women with a period of gestation of more than 28 weeks were included. Pregnant women with known history of hypertension before 20 weeks of gestation were excluded. Dietary rate were assessed by 24 hour dietary recall. Auto-analyser (Biolis24i) was used to measure serum calcium.

RESULT: A total of 51 (23.5%) pregnant women had dietary calcium intake more than or equal to the recommended value (RDA = 1,200 mg). The mean dietary calcium intake (SD) was 858.4 (377.0) mg/day against RDA of 1,200 mg/day. However, 191 (88%) pregnant women had serum calcium level of more than 9 mg/dL. The mean serum calcium level (SD) was 9.6 (0.56) mg/dL against the normal level of 9.0 mg/dL. On bivariate analysis, dietary calcium intake was associated with education (P value <0.01). A total of 29 (13.4%) pregnant women developed preeclampsia. Serum calcium level was not associated with preeclampsia, odds ratio (OR) 1.2 (95% CI 0.27-3.98).

CONCLUSION: The study showed that the mean dietary calcium intake of pregnant women was less than the RDA but the serum calcium level was normal. The incidence of preeclampsia was not associated with serum calcium level. Calcium supplementation may not reduce preeclampsia in this population.

KEYWORDS: 1.NUTRITION 2.DIETARY CALCIUM INTAKE 3.PREGNANT WOMEN 4.RECOMMENDED DIETARY ALLOWANCE (RDA) 5.HEALTH AND DEMOGRAPHIC SURVEILLANCE SYSTEM (HDSS) 6.PREECLAMPSIA 7.SERUM CALCIUM 8.DIETARY RATE

**BACKGROUND:** Iron deficiency is a leading micronutrient deficiency and primary cause of anaemia worldwide, affecting almost one-quarter of the world's population. Prevalence of anaemia in women of child bearing age is approximately 40 percent in developing countries and 20 percent in industries countries and rate increases further during pregnancy, reaching to 59 and 24 percent in developing and developed countries, respectively. Foetal iron stores are mostly compromise in poor people.

**OBJECTIVES:** To evaluate the effect of maternal iron deficiency anaemia (IDA) on foetal thrombopoiesis.

**METHODOLOGY:** A prospective observations study was carried out among 142 mothers with IDA (hb<11g/d) and serum ferritin < 12ng/ml) and equal number of healthy non-anaemic (hb ≥ 11g/dl) mothers who delivered singleton live neonatal at term gestation.

**FINDINGS:** Significant difference were observed in maternal BMI, receipt of antenatal care and iron and folate supplementation favouring non-anaemic group (p<0.001). Cord blood Absolute Platelet Count (APC) and Platelet Distribution Width (PDW) were comparable between non-anaemic and mild to moderate anaemic mothers (242,550±54,320/µL vs 235,260 ± 34,620µL). For APC and PDW were significantly lower in severe anaemia group (74,250 ± 12, 380/µL and 17.8±2.1 fl, respectively; p<0.001). No correlation was observed between maternal APC and cord blood APC or platelet indices. None of the neonates had a platelet count < 30.000/µL or showed by bleeding manifestations.

**CONCLUSION:** The study shows that neonates born to mothers with severe IDA had moderate thrombocytopenia with increased PDW.

**KEYWORDS:** 1. NUTRITION 2. IRON DEFICIENCY ANAEMIA 3. ABSOLUTE PLATELET COUNT 4. NEONATAL 5. ANTENATAL CARE 6. NON-ANAEMIC MOTHERS 7. THROMBOCYTOPENIA 8. PREGNANCY INDUCED HYPERTENSION (PIH) 9. MEAN PLATELET VOLUME 10. PLATELET DISTRIBUTION WIDTH (PDW).
Social Welfare


BACKGROUND: The MGNREGA scheme encompasses many provisions for inclusive growth with initiatives to transform rural lives with an equal contribution of women. The level of awareness about MGNREGA provisions reveals the significance of program for its primary stakeholders and their likelihood to work for the program. The scheme has the potential not only to strengthen social security in rural India, but also to transform rural economy by building a strong base for agriculture production.

OBJECTIVES: To find out the level of awareness among MGNREGA beneficiaries about employment provisions of guaranteed wage employment scheme; and; to find out the reasons of beneficiaries’ participation in employment program.

METHODOLOGY: The study is based on the analysis of field investigation conducted in district Mandi of Himachal Pradesh in year 2013-14. Structured schedules were used to collect data. A total of 400 randomly selected MGNREGA beneficiaries from each of the panchayats were interviewed.

Findings: Most of the respondents working under the scheme were aware about 100 days of employment (98%) in a year. The awareness regarding unemployment allowances was half (53.2%) of the population. Further it was revealed that only one-fourth (25.5%) of respondent have ever obtained a dated receipt for their application and none of them have ever received unemployment allowances till date. Awareness about additional allowances to work outside five kilometers was 80.2 percent, while awareness for provision of work within 15 days of application was 86 percent. Awareness about these basic facilities at worksite is highest (99%) among respondents. Further, 96.3 percent beneficiaries are aware about non usage of machinery, while only 88.2 percent of respondent acknowledge awareness about day care facility for children. Although women with infants were often discouraged to work as it impedes the average output hence wages of other workers. Further, majority (93.5%) of respondents admitted that they should participate in gram sabha meeting to decide the shelves of works in their respective wards. The awareness about provision of social security exhibited that only three-fifth (60.8%) of respondents were aware of unique provision of hospitalization benefits under Rashtriya Swasthay Bima Yojana (RSBY), a discrepancy was also observed in the issuance of RSBY cards to beneficiaries. Only 44.2 percent of respondents were aware of the fact that if they are injured at worksite and admitted in a hospital, they were entitled for 50 percent of wages. Only 39.5 percent of
respondents were aware of ex gratia payment of Rs. 25,000 in case of death or permanent disability. All the respondents were aware about marking their attendance in muster roll. About four-fifth (80.8%) of respondents have heard the word social audit, although they were not aware of its process and relevance. Noticeably, 97.5 percent of respondents admitted that work should be provided continuously for 14 days at a regular stretch. Contrastingly only 1.8 percent of respondents have ever used the website of MGNREGA to avail the information. More than one-third (34.5%) of beneficiaries were working under the scheme for having supplementary income, since landholding status of these respondents was good enough. Significantly, MGNREGA was acting as only source of livelihood for nearly one-third (29.8%) of respondents, majority of them were widows, villagers in old age group and beneficiaries belonging to BPL/IRDP families. One-third of respondents were working under the scheme to have an opportunity to earn independently and become self-dependent.

CONCLUSION: The scheme was introduced to provide gainful employment with focus on sustainable development through generation of assets in rural areas. It has immense benefits for rural population in a country where people are facing the challenge of environmental degradation, unpredictable weather predictions, lesser agriculture productivity. The programme shall be professed as an avenue for the development and strengthening of the rural infrastructure while not just emerging as an employment generation programme.

KEYWORDS: 1. SOCIAL WELFARE 2. MGNREGA 3. SUPPLEMENTARY INCOME 4. GRAM SABHA 5. SOCIAL SECURITY 6. UNEMPLOYMENT ALLOWANCES 7. RASHTRIYA SWASTHAY BIMA YOJANA (RSBY) 8. RURAL ECONOMY 9. WAGE EMPLOYMENT SCHEME.
Women Welfare


G19453

BACKGROUND: Globalization’s impact on women’s work comes through in a variety of ways – through introduction of new technologies, technological change, flexibilization of the work force, by opening of new markets, changes in social security policies and through growing pressure on natural resources. This is due to the complete lack of any access to skill training and technological know-how. It is essential to analyze and understand the real impact of newer technological interventions on women in the agriculture sector in order to find strategies to strengthen the positive impact and to protect them from negative impact so as to maintain a decent standard of living for the women work force.

OBJECTIVES: To study the socio-economic status of women agriculture labourers in different regions of Tamil Nadu; to analyse the changing trends and pattern of employment pre and post globalization era with special focus on women agriculture labourers in the study area; and; to examine the technological interventions in agricultural activities and analyse their impact on women employment and food security.

METHODOLOGY: Purposive and multi-stage sampling technique was used in the study. Three villages were covered in each gram panchayat under three districts, namely, Coimbatore, Tanjore and Dindigul districts were selected. From each village, 50 women agriculture labourers were selected on systematic sampling through lottery method.

RESULTS: Majority of respondents (44%) were in the age group of 46-50 years while more than one-third (35%) were illiterates. Occupational pattern showed that around three-fifth (62%) were only agriculture labourers followed by three-tenth (30.7%) involved in farming activities as wage workers. Annual individual income of seven-tenth (70.4%) of respondents constitute less than Rs. 10,000; but annual family income ranges between Rs.10,000 and Rs. 25,000. Nearly three-fifth (61.1%) women agreed those in the patriarchic society like in India men are the decision makers; and only one-fifth (20.4%) women have the responsibility to lead the family which includes forced women headed families. Around 65 percent women agricultural labour reported that they do not have freedom of mobility as they wish. Around 78 percent reported that the income earned by them have handed over to male head of the household. Majority (95%) did not participated in any political decision making activity. In the pre-globalization era about four-fifth (78.7%) respondents reported they got 20-30 days of employment per month.
During post globalized era, more than half (57.8%) opined that women get an employment of only 10-20 days, and just one-third (37.1%) respondents replied to only less than 10 days per month. During the period of non-availability work or in the off season, 44.4 percent remained unemployed due to various factors. Majority (88.2%) have agreed that, present agriculture system made negative impact on food security of the agricultural labourers. Earlier, the women participation in different activities of agriculture was in direct sowing (22.4%), followed in transplanting (48.2%). There were 13.8 percent reportedly migrate to urban centers to find opportunities for their livelihood. Changed cropping pattern, were noticed from multiple cropping to mono-cropping, resulted with loss of employment (52.7%); loss of skill (46.2%); enhanced the market dependency by (86.0%) respondents. Around 41.8 percent respondents of viewed that they lost 25-50 days of employment due to replacement of traditional seeds, mechanization in land clearance and preparation deprived employment (94%) for less than 25 days. All respondents opined the loss of employment due to mechanization in transplantation; but their responses vary from 26-50 days (42.4%) to 51-75 days (39.3%) and 76-100 days (18.27%).

CONCLUSION: Globalization is usually biased against unskilled workers. Rural women mostly engaged in unskilled labour force that is invisible to the ‘economy’. Therefore, globalization requires economic and social policies to provide the much required safety net for women involved in the traditional ways, and had to cope with numerous problems which affect their employment, income health and food security.

KEYWORDS: 1.WOMEN WELFARE 2.RURAL ECONOMY 3.FOOD SECURITY 4.AGRICULTURE LABOURERS 5.GLOBALIZATION 6.DECISION MAKING 7.UNSKILLED WORKERS 8.CROPPING PATTERN.
BACKGROUND: Mental health is the capacity of an individual to form harmonious adjustment to one’s social and physical environments. It means the ability to face and accept the realities of life. During the last few decades, industrialization, urbanization, increasing level of education, awareness of rights, wider influence of media and westernization has changed the status and position of women. The problems of working women are multidimensional and differ from women to women. At present women are in a position to compete with men in all walks of life. The problems of women who combine the different role of a wife, mother and working women are multiple; which can be categorized under different heads as physiological problems, adjustment problems, social problems and economic problems.

OBJECTIVES: To measure the Mental Health between working and non-working women; to measure the level of Depression between working and non-working women; to measure the Correlation between Mental Health and Depression among working and non-working women.

METHODOLOGY: The sample of the study comprised of 80 women, out of which 40 are working and are non-working women drawn in Tirupti town by using Convenient Random Sampling Technique. Mental Health inventory developed by Jagadish and AK Srivastava (1983) was used and Depression Scale Constructed and Standardized by Karim and Tiwari (1986) was used.

RESULTS: With Regard to the Mental Health the mean score (163.19) of working women and mean score (177.15) of non-working women. It indicated that there was a significant difference in mental health status of working and non-working women, (t Value = 5.81). With Regard to the Level of Depression, the study revealed that mean score (166.25) of working women and mean score (150.42) of non-working women. It indicated that there was a significant difference in their level of depression among working and non-working women. (t Value = 7.64). The Correlation between Mental Health and Depression among working and non-working women was found to be negatively correlated between mental health and depression. (r = -0.3234).It reveals that good mental health leads to less depression; therefore, mental health and depression are negatively correlated.

CONCLUSION: Non-working women had possessed better mental health than working women. Working women had possessed high level of depression than non-working women. There is negative correlation between mental health and depression among working and non-working women.

KEYWORDS: 1.WOMEN WELFARE 2.MENTAL HEALTH 3.WORKING WOMEN 4.NON-WORKING WOMEN 5.DEPRESSION 6.SOCIAL PROBLEM
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