DCWC Research Bulletin

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Contents

A. Research Abstracts on Child Development

CHILD WELFARE

1. Centre for Child and the Law. (2017).
   Study on the Working of Special Courts Under The POCSO Act, 2012 in Assam.
   G19918

   INTRODUCTION: The POCSO Act requires judges, prosecutors, and lawyers to modify their practice and attitudes in order to ensure that the proceedings are sensitive to the needs and rights of children. Without mandating a change in the structure of the courtroom, it requires that measures be adopted to prevent the child from being exposed to the accused while ensuring that the rights of the accused are not compromised. The Central Government and State Government needs to take measures to certify that government servants, police officers and other concerned persons who are the middle users to have periodic training on matters related to the implementation of the Act.

   OBJECTIVES: 1. To examine the extent to which Special Courts in Assam are "child-friendly." 2. To examine whether the Special Courts are structurally and procedurally compliant with the POCSO Act and Rules. 3. To understand the interpretation of provisions, application of presumption, appreciation of testimony of the child, disposal rate, conviction rate, factors affecting conviction and acquittal, response to 'romantic relationships', compensation orders, use of medical evidence, and investigation lapses.4. Identify gaps and challenges in the functioning of the Special Courts. 5. Identify good practices that can be adopted by Special Courts to ensure a child-friendly trial. 6. Articulate recommendations for practice guidelines and system reform based on the above.

   METHODOLOGY: The team studied 172 judgments passed by Special Courts in 24 districts, from 1 January 2013 till 31 August 2016. 32 interviews were carried out with a range of stakeholders. Structured interviews with prosecutors, lawyers, Support Persons, police officers, doctors, NGOs, children, families, and other experts involved in legal proceedings concerning child victims of sexual abuse were administered.

   RESULTS: The sex profile of the victims and the accused reveals that out of the total 178 victims, 98.9 percent of cases involved a female victim, whereas only 1.1 percent of the cases involved a male victim. While 188 accused persons, majority (97%) of the accused were male while the remaining (3%) were female. The victims were pregnant in 15 cases when the FIR was registered. Among the most (85.5%) of cases where the age was stated, three-fifth (63.8%) of cases involved sufferers between the age group of 12 to 18 years. In one-third

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(33.5%) of cases, the victims were below 12 years. Conviction was awarded in 42 cases under the POCSO Act between 2014 and August 2016 and the large majority (130 cases) ended in acquittal. Of the 91 children who testified against the accused, the testimony of 37 children was found unreliable (40.7%), while that of 54 cases (59.3%) were found reliable. Charges of penetrative sexual assault were framed in 83 cases (48%), aggravated penetrative sexual assault in 27 cases (15%), sexual assault in 45 cases (26%), aggravated sexual assault in 10 cases (6%), and sexual harassment in 9 cases (5%). The accused was known to the victim in more than three-fourth (78%) cases, and to a stranger in some (10%) of the cases. The profile was not specified in some (12%) cases. As regards numbers, the acquaintances constituted the largest group (28%), followed by neighbor (24%) and relatives (16%). The highest number of cases in which the victim testified against the accused were in cases where the accused was a neighbor (78%), stranger (60%), father/step-father (60%), acquaintance (57%) and relative (53%).

RECOMMENDATIONS: Establishment of dedicated Special Courts to exclusively deal with cases under the POCSO Act, in districts where pendency is high. Construction of waiting rooms in all court complexes specifically for child victims of sexual abuse and their families. Creation of a cadre of trained para-legal volunteers to support child victims during the entire course of the investigation. Training of judges and Magistrates on age and developmentally appropriate techniques of interviewing children and appreciating their statements is needed. A list of qualified translators, interpreters, special educators and experts who could assist in the recording of testimony of the child be made available to all Special Courts. Allocation of funds to JJBs, to ensure that curtains or other means are available to ensure that the child victim is not exposed.

KEYWORDS: *1.CHILD WELFARE 2.CHILD FRIENDLY COURTS 3.POCSO 4.CHILD FRIENDLY JUSTICE 5.SPECIAL COURTS 6.PENETRATIVE SEXUAL ASSAULT.*

2.   Degi, K. and Tok B.R. (2017).
        Level of Awareness and Attitude towards Child's Right to Free and Compulsory Education Act among the Parents and Teachers of Papum Pare District of A.P. *International Journal of Humanities and Social Science Invention, Vol.6 (9): 15-17.*
        G19919

Introduction: Education is both a human right in itself and an indispensable means of realizing other human rights. As an empowerment right, education is the primary vehicle by which economically and socially marginalized adults and children can lift themselves out of poverty and obtain the means to participate fully in their communities. Education has a vital role in empowerment women, safeguarding children from exploitative and hazardous labour and sexual exploitation, promoting human rights and democracy, protecting the environment, and controlling population growth.

Objectives: 1. To investigate the attitude of Parents towards Child's Right to Free and Compulsory Education Act in Papumpare district of Arunachal Pradesh. 2. To investigate the attitude of Teachers towards Child's Right to Free and Compulsory Education Act in Papumpare district of Arunachal Pradesh. 3. To assess the level of awareness about Child's Right to Free and Compulsory Education Act among the parents of Papumpare district of Arunachal Pradesh.

Methodology: The researchers have adopted random sampling method for the present study. A sample of 200 parents and 200 teachers were selected randomly. Further, 200 parents were divided on the basis of sex and settlement and 200 teachers were divided on basis of sex and professional training.

Results: The computed t-vale 5.18 exceeds the criterion t-vale 1.97 to .05 level of confidence for 198 df. Therefore, the hypothesis of the study that "there was no difference in the attitude of male and female Parents of Papumpare district towards Child's Right to free and Compulsory Education Act" gets rejected and interpreted that there was significant difference in the attitude of male and female parents towards Right to free and Compulsory Education Act in Papumpare district of Arunachal Pradesh. From the mean score it was understood that female parents have more favourable attitude than male parents. The computed t-vale 10.85 exceeds the criterion t-vale 1.97 to .05 level of confidence for 198 df. Therefore, the hypothesis of the study that "there was no difference in the attitude of male and female teachers of Papumpare district towards Child's Right to free and Compulsory Education Act" gets rejected. From the mean score it was understood that female teachers have more favourable attitude towards Child's Right to Free and Compulsory Education Act in Papumpare district of Arunachal Pradesh. It was found that mostly (97%)

parents were aware of the Act that it was implemented in the state. Less than half (48%) parents were aware that there was no screening test and no documents required at the time of admission in schools. Majority (58%) parents were aware of the student-teacher ratio in the class and majority percent of parents think that it was not possible to maintain the ratio. More than half (54%) parents were aware of no detention of child in the same class for more than one year. It was found that majority of the parents were aware that corporal punishment was banned under child's right to free and compulsory education Act 2010. About half (49%) responded that ban in corporal punishment encourages indiscipline among the students. While some (38%) were aware of (25%) reservation for the students coming from the low socio-economic status in all privately run schools. Less than half (48%) parents heard about the inclusive education programme. 58 percent were aware that the teachers should be trained however, 51 percent parents were aware that it was not possible to train all the teachers in a given time frame. Only a few (3%) parents were aware that they can register their complain to National commission for protection of child rights (NCPCR).

CONCLUSION: Though Child's Right to Free and Compulsory Education Act has been implemented in the state of Arunachal Pradesh in the year 2010, but there is much confusion especially among the parents in the rural areas. More training and awareness needs to provide to administrators, parents, stakeholders to implement it fully. Many programmes under RTE Act are not implemented practically in the schools of rural areas.

KEYWORDS: 1.EDUCATION 2.EDUCATION RIGHTS 3.CHILD RIGHTS 4.RTE 5.STUDENT-TEACHER RATIO 6.NO DETENTION 7.CORPORAL PUNISHMENT 8.NCPCR 9.PRIVATELY RUN SCHOOLS 10.INCLUSIVE EDUCATION PROGRAMME.

3.   AR Somashekar and KG Ramakrishnan. (2017).
     Evaluation of Asthma Control in Children Using Childhood– Asthma
     Control Test (C-ACT) and Asthma Therapy Assessment Questionnaire
     (ATAQ). *Indian Pediatrics. Vol. 54 (9): 746-748*
     G19920

INTRODUCTION: The goal of asthma care is to achieve and maintain control of symptoms for prolonged periods. The Global initiative for Asthma (GINA) offers a framework to do so through the GINA criteria, which requires the measurement of pulmonary functions. As effective asthma care requires periodic assessment of asthma control, it is not feasible to perform Pulmonary Function Tests (PFT) repeatedly in resource-poor settings.

OBJECTIVES: To evaluate the efficacy of Childhood-Asthma Control Test (C-ACT) and the Asthma Therapy Assessment Questionnaire by (ATAQ) checking its consistency with Global Initiative for Asthma (GINA) criteria.

METHODOLOGY: Asthma control of 97 children was assessed using C-ACT, ATAQ and GINA criteria separately, and their results were compared.

RESULTS: The study revealed that within a total sample of 97 children (64 boys) included in the study, the ranges in all the three tests that is, Childhood-Asthma Control Test (C-ACT), Asthma Therapy Assessment Questionnaire (ATAQ) and Global Initiative for Asthma (GINA) criteria based evaluation showed that 62 percent, 10 percent and 33 percent of the children were in the range of controlled asthma. C-ACT had better performance for evaluating control as per GINA criteria with sensitivity of 48.3 percent, and the specificity of 68.9 percent were the highlight in the sample. The area under the Receiver Operative Curve (ROC) was found to be 0.647. The similar parameters for ATAQ were distinguished with 93.1 percent, 17.2 percent and 0.552, respectively. The performance of C-ACT was better than that of ATAQ (difference of 42.5%, P<0.001). A cutoff score of 20 for C-ACT was found to be more suitable as it has maximum ROC area (0.667), with a higher KAPPA score (0.315); P= 0.001. The routinely generated statistically best cut-off was found to be 20 with the area under the curve of 0.706 at significance level of 0.0003.

CONCLUSION: The C-ACT questionnaire was found to be reasonably defining with the GINA criteria, and the findings has satisfactory performance in evaluation of asthma control. While with an underestimate current standard cut-off score of 19, the effectiveness of the asthma therapy assessment questionnaire (ATAQ) still remained unclear, very similar to the other studies.

KEYWORDS: 1.CHILD HEALTH 2.C-ACT QUESTIONNAIRE 3.CHILDHOOD-ASTHMA CONTROL TEST (C-ACT) 4. GLOBAL INITIATIVE FOR ASTHMA (GINA) 5. GINA CRITERIA

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6.PULMONARY FUNCTION TESTS (PFT) 7. RECEIVER OPERATIVE CURVE (ROC) 8. ASTHMA THERAPY ASSESSMENT QUESTIONNAIRE (ATAQ)

4.   Dalal, E.A, Vishal G. Shah, J.M. (2017).
      Outcome of Acute Viral Hepatitis in Children Admitted in Tertiary Care Hospital of Ahmedabad, Gujarat. *National Journal of Community Medicine Vol. 8(3): 131-134.*
      G19921

INTRODUCTION: Viral Hepatitis is a major health problem in both developing and developed countries. Caused mainly by 5 hepatotropic viruses designated as hepatitis A, B, C, D, E. Many other viruses (and diseases) can cause hepatitis, usually as one of the component of multisystem disease. These include HSV, CMV, EBV, varicella zoster virus, HIV, adenoviruses, enteroviruses, parvoviruses B19, arboviruses. As hepatitis B and C lead to hepatocellular carcinoma in the long run, the epidemiological study of these two viral hepatitis is necessary for the prevention of this complication especially with the advent of vaccines.

OBJECTIVES: To study the impact of various epidemiological factors, to compare the etiological profile of common viral agents and to study the outcome of children (<12 years) admitted with acute viral hepatitis in paediatric ward of tertiary care institute of Gujarat.

METHODOLOGY: A hospital based cross sectional study with a sample size of 150 children admitted in the pediatric ward having acute viral hepatitis.

RESULTS: Maximum number of patients (45.3%) were less than 5 years of age. Out of total 150 patients, 108 (72%) were found to be male. The disease was found to be present in amongst Upper lower socio economic class (51%). 88 (58.7%) were having Hepatitis A infection while 36 (24%) patients were having Hepatitis E infection. Fulminant Hepatic Failure was found to be the most common complications among study participants (20%). Other complications were encephalopathy (5.3%), acute kidney injury (4%), DIC (2.7%) and spontaneous bacterial peritonitis (1.3%). Hepatitis A virus was found in 22 (73.3%) out of 30 patients of fulminant hepatic failure while coinfection of hepatitis A and E was found in 3 (6, 67%) patients. The comparison between Hepatitis A infection against A+E coinfection found to be significant with p value 0.0219 (<0.05) while highlighted the increased chances of expiry. The hepatitis A + E coinfection has higher mortality (25%) as compared to the mortality rate with hepatitis A was 3.4 percent, and that the mortality rate with hepatitis E was 5.6 percent.

CONCLUSION: Hepatitis A virus is commonest causative agent of acute viral hepatitis with good prognosis. Timely done serological viral markers supported with liver function test were good enough to diagnose and prognosticate the admitted cases. Early active immunization of children can be right step towards better future against hepatitis.

KEYWORDS: 1.CHILD   HEALTH   2.HEPATITIS   3.FULMINANT   HEPATIC   FAILURE 4.HEPATOTROPIC VIRUSES 5.HEPATITIS A VIRUS 6.ACUTE KIDNEY INJURY.

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5.   Chandrashekhar, T. et. al. (2017).
          Risk Factors for Cardiovascular Disease in Obese Children. *Indian Pediatrics, Vol. 54 (9): 752-755.*
          G19922

INTRODUCTION: Childhood obesity is exponentially growing as a global phenomenon affecting all socio-economic groups, irrespective of age, sex or ethnicity. Many of these children have risk factors for later cardiovascular disease (CVD), and early signs of atherosclerosis. Childhood obesity tends to track to adulthood, and thus represents an early beginning of a potentially lethal pathologic process. The traditional cardiovascular risk factors, namely overweight/obesity, diabetes, hypertension and dyslipidemia may not account for all CVD-related deaths.

OBJECTIVES: To study the prevalence of cardiovascular risk factors in pediatric obesity.

METHODOLOGY: 50 obese children (age 5-17y) and 50 apparently healthy non-obese children (body mass index of over 95th percentile and between 5th to 95th percentiles, respectively) using Centre for Disease Control growth charts were included.

RESULTS: The study had two groups with 50 cases (2-10y=22, 11-17y=28; 29 boys) and 50 controls (2-10y=13, 11-17y=37; 27boys) obese children. The findings revealed that obese children had significantly higher insulin (7.5 sd), HOMA-IR (2.6 sd), Triglycerides (68.7 sd), Very Low Density Lipo protein (13.7 sd), uric acid (1.03sd) and fibrinogen levels (152.2 sd) ($P<0.001$) when compared to their lean peers. With comparison to the control group, the Oxidative stress marker, Malondialdehyde (MDA), antioxidant status, FRAP and marker of endothelial dysfunction was found to be significantly higher ($P<0.001$). A positive and significant correlation was observed for BMI with insulin (r=0.519, $P<0.001$), HOMA-IR (r=0.479, $P<0.001$), Uric Acid (r= 0.289, $P=0.005$), fibrinogen (r=0.461, $P<0.001$) and NO (r=0.235, $P=0.012$). A significant elevation of homocysteine ($P=0.039$) and NO ($P=0.017$) was observed in female obese children when compared to male obese children.

CONCLUSION: Childhood obesity is one of the major risk factors in the pathogenesis of type 2 diabetes and Cardio Vascular Diseases. The significance of providing the Cardio Vascular Disease risk at a younger age seeks to be validated in other studies. Therefore, these obese children must be modified with the lifestyle and dietary modification, and if necessary therapeutic interventions shall be included to further control the progression of these risk factors.

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ICDS

6.   Chandrapal, S., and Saxena, A. (2017).
Utilization of Maternal Health Care Services With Reference to Integrated Child Development Services. *PARIPEX – Indian Journal of Research, Vol.6 (10): 438-440.*
G19923

Introduction: The Integrated Child Development Services (ICDS) is an initiative undertaken by government for holistic development i.e. health, nutrition and education of children under 6. It is aimed at reducing infant mortality, child malnutrition and to provide pre-school education. The beneficiaries of the ICDS scheme are to a large extent identical with those under the Maternal and Child Programme. It has made a positive impact on improving the maternal and child health.

Objectives: 1. To study utilization of services offered to women beneficiaries under Integrated Child Development Services 2. To study association between some of the selected dependent and independent variables.

METHODOLOGY: A community based descriptive study was conducted. Sampling frame was all women beneficiaries from 9 selected villages of Anand Taluka, Gujarat. Sample of 300 recently delivered Women were selected through Stratified Proportionate Sampling procedure.

Results: The most common service utilized by the study subjects were Health Education (98%), followed by Consumption of Iron Folic Acid (96%), Immunization (94.3%), followed by Health Check Ups (93%) and supplementary nutrition (91.7%). There was a statistically significant association between Supplementary Nutrition and independent variables namely, age and religion while statistically non-significant association was found between Immunization and all other independent variables. It was also evident that a significant association was found between another component of ICDS i.e. Health Education and age, caste & Income while a non-significant association found with other independent variables. There was statistically a significant association between Consumption of Iron Folic Acid and age of the respondents.

Conclusion: The utilization of Integrated Child Development Services among recently delivered rural women was high. Among the women not utilizing the services; the reasons for non-utilization need to be addressed for optimal utilization of Services under ICDS.

KEYWORDS: 1.ICDS 2.IMMUNIZATION 3.SUPPLEMENTARY NUTRITION 4.IRON FOLIC ACID 5.MATERNAL AND CHILD PROGRAMME 6.HEALTH EDUCATION.

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7.   Kaur, D., et al. (2016).
            Workload and perceived constraints of Anganwadi Workers. *Nursing and Midwifery Research Journal, Vol. 12(1):18-24.*
            G19924

INTRODUCTION: Children are the first call on the agenda of human resource development of every nation, not only because young children are the most vulnerable, but because the foundation for lifelong learning and human development is laid in these crucial, early years. The ICDS services are delivered by an honorary worker i.e. Anganwadi worker. Anganwadi Worker is a community based frontline honorary worker of the ICDS Programme selected from the local community. National Institute of Public Cooperation and Child Development (NIPCCD) had recommended time distribution of various activities to be performed by Anganwadi.

OBJECTIVES: To assess the workload and perceived constraints of Anganwadi workers.

METHODOLOGY: A cross sectional exploratory study with a convenient sampling was used to select 14 Anganwadi centres and Anganwadi workers.

RESULTS: The findings reveals that out of total recommended time by National Institute of Public Cooperation and Child Development (NIPCCD) i.e. 270 minutes per day, on an average anganwadi worker spent 83.04±47.94 minutes in maintaining records against recommended time of 30 minutes (p < 0.001). For supplementary nutrition almost same time was devoted which was recommended i.e. 30 minutes. Mean time spent in preschool education in all the Anganwadi Centre was 28.12± 30.79 minutes against the recommended time of 120 minutes (p < 0.001). Mean time spent on home visit was only 6.082±13.48 minutes against the recommended time of 60 minutes (p<0.001). Time spent on the specified activities by NIPCCD was only 54 percent while 26 percent of time was spent on other activities, which included health education to beneficiaries, listening to their problem, meeting with ANM, MO, Training at CHC, Pulse Polio duty, talking with other AWW on clarification of doubts and visiting other Anganwadi centres. Some (20%) of total time was spent by Anganwadi workers in unspecified work i.e. personal work. About 10 Anganwadi workers were interviewed for professed restrictions and their mean age was 35.7±6.05 years. While 6 of the Anganwadi worker had studied up to 10+2 whereas one of them was also graduate. Half of the Anganwadi workers had working experience of 16- 20 years and the mean working experience was 11±7.40 years. All of them were trained. Only four of them were residing in the same area .One fourth of Anganwadi worker had their residence at distance of less than 1km from Anganwadi centre. Six of them were working in urban Anganwadi centre. Seven Anganwadi workers were running Anganwadi centre in rented buildings. No help

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from community leaders, no seasonal vacations, no government building for Anganwadi centre were the main problems reported by Anganwadi workers.

CONCLUSION: Anganwadi workers were burdened with records and devoted considerable time in maintaining records and other activities and they faced lots of problems in carrying out their job. To address all these issues, time allocation pattern for ICDS activities need to be reviewed and separate time for meetings and other activities should be allocated other than 270 minutes so that workload on Anganwadi workers can reduce and they can function effectively.

KEYWORDS: 1.ICDS 2.ANGANWADI CENTRES 3.ANGANWADI WORKERS 4.AWW 5.NIPCCD 6. HOME VISITS 7.SUPPLEMENTARY NUTRITION 8.RECORD MAINTENANCE.

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NUTRITION

8.   S. V. Prashanth, et.al.
         Obesity: Changing Outlook of Indian Adolescent Children: Emerging and
         Worrying Trend.
         G19925

INTRODUCTION: Obesity is derived from Latin word 'OBESUS' means pump or having eaten oneself fat. Invariably obesity is a product of imbalance between energy intake and energy spent. Today childhood obesity is a matter of concern to the whole world. WHO has designated obesity as global epidemic. As per the recent data worldwide obesity has more than doubled since 1980. In 2014, over 600 million were obese. That comes to 39 percent of adults worldwide are either overweight or obese. 41 million children under the age of 5 were overweight or obese in 2014.

OBJECTIVES: To know the prevalence of obesity and factors associated with obesity in rural and urban part of India.

METHODOLOGY: This cross-sectional study was conducted in three high schools of rural and urban part of Davangere district, central Karnataka, India with a sample of 918 adolescent school children.

RESULTS: In the rural schools out of 411 students, 139(33.8%) were from government school, 87 (21.2%) from aided school and 185 (45%) were from private schools. In the urban schools out of 507 students, 122 (24.1%) were from government school, 219 (43.2%) from aided school and 166 (32.7%) were from private school. Out of 918 children 93 were overweight/ obese, with a total prevalence of 10.1 percent. Among these, 64 (12.6%) children in urban schools and 29 (7.1%) in rural schools were found to be overweight/ obese. In boys prevalence of overweight was 7.43 percent and obesity 0.22 percent in boys, similarly (11.6% and 0.85%) in girls. Prevalence of overweight and obesity in rural schools was least at the age group of 16th year (3.7%) followed by 13th years (11.1%) 15th year (37%) and the most at 14th year (48.1%) with the overall prevalence of 7.1 percent. Prevalence of overweight and obesity in urban schools was least at the age group of 16th year (6.6%) followed by 13 years (21.3%) 14thyear (32.8%), and most at 15thyear (39.3%) with the overall prevalence of 12.6 percent. The prevalence was found to be more in the age group of 14 and 15 years. Prevalence of overweight and obesity in rural government school children was 7.9 percent, in aided schools 6.9 percent and in private school 6.5 percent. Prevalence of overweight and obesity in urban government school children was 21.3 percent, in aided schools 8.7 percent and in private school 11.4 percent. The p value was significant (<0.05) in the study.

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CONCLUSION: Overweight and obesity thought to be disease of developed and affluent nation. But in changing trends, countries like India especially rural areas, it's alarming to see such results. Adopting the healthy lifestyles, food habits and regular exercise can reduce the risk of becoming overweight and obese.

KEYWORDS: *1.CHILD NUTRITION 2.ADOLESCENT CHILDREN 3.HEALTHY LIFESTYLE 4.OVERWEIGHT 5.OBESE 6.FOOD HABIT 7.BALANCED DIET.*

9. Mahajan, S. et. al. (2017).
        Macronutrients in Breastmilk of Mothers of Preterm Infants. *Indian Pediatrics, Vol. 54(8): 635-637.*
        G19926

INTRODUCTION: Breast milk decreases the risk of late-onset sepsis and necrotizing enteric olitis in preterm neonates and is therefore preferred over formula milk. Breastmilk secreted by mothers of preterm neonates is deficient on both these counts and therefore needs fortification. However, neonates fed human milk even after fortification grow slower than the neonates fed formula milk.

OBJECTIVES: To evaluate the variability in macronutrient and energy content of breastmilk of Indian women delivering at ≤34 weeks of gestation.

METHODOLOGY: A cross-sectional study, samples of breastmilk expressed manually for feeding of preterm neonates were collected from 106 mothers at 3±1 (n=26), 7±2 (n=34), 14±2 (n=24), 21±3 (n=12) and 28±3 (n=10) days after birth.

RESULTS: The milk samples were collected from a total of 106 mothers. Of these, 15 mothers delivered at <30 weeks of gestation, 56 at 30-32 weeks and 35 at 33-34 weeks of gestation. Milk samples were collected from 26 women on postpartum day 3±1, from 34 women on postpartum day 7±2, from 24 women on postpartum day 14±2, from 12 women on postpartum day 21±3, and from 10 women on postpartum day 28±3. The mean (SD) age of mothers who delivered babies prematurely were in the range of 25±4.2 years. Preterm rupture of membranes (41%) was found to be the most common factors responsible for delivery at ≤34weeks of gestation followed by eclampsia (15%). About one-third women delivered by a C-section and the median gestational age at delivery was 32 weeks. Over the first 4 weeks postpartum, a significant decline (P=0.006) in the protein content was found from 4.1±2.1g/dL on the 3rd day to 2.2±0.6 g/dL by the 28th day. The fat content of colostrum (3rd day) was lower than the fat content of transitional milk (7[th]day) and mature milk (14th, 21st, 28[th]day, P=0.03). The lactose content also increased from 2.2 g/dL in the first week to 3.0 g/dL by the fourth week. The energy content of milk escalated progressively from 42.3 kcal/dL in the first week to 52 kcal/dL by the fourth week (P=0.01). High degree of variability was observed in macronutrient composition even when milk expressed at each time-point was assessed. It was observed that in 102 (96.2%) neonates the minimum prescribed energy intake of 110 Kcal/kg was not met even with 180 mL/kg of breastmilk. The intake of 180 mL/kg of breast milk, the minimum prescribed protein intake of at least 3.5 g/kg was not encountered in 67 (63.2%) neonates.

CONCLUSION: Preterm human milk has high temporal and inter-individual variation in the macronutrient composition and without fortification is unlikely to meet the nutritional requirement of preterm neonates.

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10. Gupta, P., et. al. (2017).
Physical Growth, Morbidity Profile and Mortality Among Healthy Late Preterm Neonates. *Indian Pediatrics, Vol. 54(8):629-634.*
G19927

INTRODUCTION: Late preterm (LPT) infants accounts for nearly 8 percent of all births and almost 74 percent of all preterm births. They are at increased risk for having higher morbidities and mortality in the neonatal period as well as adverse neurodevelopmental outcomes as compared to full term (FT) infants. Late preterms have also been shown to have higher health care utilization rates, re-hospitalization rates and mortality by 1 year of age.

OBJECTIVES: To compare the physical growth outcomes, morbidity profile and mortality at an age of 12 months among late preterm (34 0/7to 36 6/7) neonates to term (37 0/7to 41 6/7) neonates.

METHODOLOGY: Prospective cohort study in a tertiary care center during 2014-2015 with 200 apparently healthy late preterms and term infants, followed up to 12 months of age.

RESULTS: The study found that at mean age of 12 months, mean (SD) weight, length and head circumference of late preterms were significantly lower than that in the full term group. On univariate analysis, as compared to term birth, late preterm birth was associated with higher odds of being underweight, stunted and wasted. However, on multivariate analysis only adjusted odds of being underweight was significant. Over first year, late preterm infants gained lesser weight as compared to full term infants. This 1 [0.7, 1.2] kg difference was found to be statistically significant (P <0.001). Weekly weight-gain was significantly lesser in late preterms as compared to full term infants. Length gain was comparable in both the groups. The mean growth of Head Circumference (HC) was more by 1.8 [1.5, 2] cm in the late preterms as compared to full term infants. Despite this gain in Head Circumference, 34 percent late preterm remained below (-2z scores) as compared to only 14 percent in the term group (P < 0.0001). At one year the mean Head Circumference also remained significantly lower than the full term infants. Jaundice requiring phototherapy, feeding problems and hospitalization rates were higher in late preterms as compared to full term group. Incidence of diarrhea and fever was also significantly higher in the late preterm group. Morbidity was inversely proportional to the gestational age. The mortality in the late preterm group was 7 percent as compared to 4 percent in full term group [OR (95% CI) of 2.1 (0.8, 6), P=0.1]. The study found out that the mortality also had an inverse relationship with the gestation age.

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CONCLUSION: The late preterm neonates are at significantly higher risk of growth faltering in the first year of life were closely associated. Some of the health indicators as having lower weight, as compared to their term counterparts was found in the study. Also, during the first year of birth, they had higher morbidities as feeding difficulties, jaundice, diarrhea, pneumonia and fever when compared to full term infants.

B. Research Abstracts on Child Protection

CHILD LABOUR

11.   Das, S. and Singh, A.K. (2014)
          A Study of Child Labour in Indian Hotel Industry. *Management Insight –
          SMS Varanasi, Vol. X (2): 19-27.*
          G19928

INTRODUCTION: Child is the future of nation, although a large number of children are neglected because of various reasons as poverty, illiteracy, natural disaster or terrorism. This has often lead to employment of these vulnerable children in various economic activities from hotel, beedi making, factories to shops as helpers, to name a few. The legislation of India prohibits the employment of these children to a certain age, but in the wake of non-stringent laws, child labour is very rampantly seen in practice.

OBJECTIVES: 1. To find out the overall scenario of child labour engaged in hotel industry in India. 2. To find out the data published by the government to curve out the child labour in the hotel industry; and; 3. To find out the working conditions and the exploitation faced by the children in their working place as hotel.

METHODOLOGY: The study is exploratory in nature, with the data collected from the secondary sources including government reports and UNESCO, amongst others.

RESULTS: The findings revealed that as per Census 2001, about 18 percent of children in the age-group of 5-14 years were composed of total work force. These children were working in various industries as tobacco, jewelry, hotel, agriculture, mining, diamond as well as domestic help. The percentage of children as workers at all India (5%), with Rajasthan having the highest contribution (8.2%), followed by Himachal Pradesh (8.1%), with least contribution from Kerala (0.5%). Regarding enforcement violation of laws, the conviction in connection to the law (Child Labour Prohibition and Regulation Act, 1986) compared to detection of was less than 1 percent. The NSSO 61st round survey reveals that more than 68 percent of child labourers were engaged in agricultural activities. It was found that a lot of hotels and motels were present in every city, town, sub-urban area and in roadside national highways and others. Maximum of them were working for 8 to 16 hours in a day.

CONCLUSION: A huge percentage of child labour is engaged in the hotel industry. To eradicate the problem of child labour in India a number of steps

should be taken ranging from making the customers aware of the services given by these child labours, to effectively rehabilitate these children through residential education and accommodation, and provision of a conducive environment for making them future thoughtful.

HEALTH

12. Kumar, R. et. al. (2015).
    Indoor Air Pollution and Asthma in Children at Delhi, India. *National Centre for Biotechnology Information, Vol.83 (4): 275-282.*
    G19929

    Introduction: Urban air pollution primarily due to suspended particulate matter (SPM), nitrogen dioxide (NO_2) and sulfur dioxide (SO_2) is an environmental concern of many cities throughout the world. It is responsible for causing serious respiratory health problems like rhinitis, asthma, decreased resistance to respiratory infections, chronic obstructive pulmonary disease (COPD), chronic cough and phlegm production which lead to premature death in the exposed population.

    Objectives: To correlate the relationship between indoor air pollutants (SO_2, NO_2 and SPM) and asthma in children.

    Methodology: Three colonies, one each representing the lower (family with income less than 3000 rupees per month), middle (family with 3000–5000 rupees monthly income) and upper (family with income more than 10,000 rupees monthly income) socioeconomic segments was randomly selected for the survey. Indoor SO_2, NO_2 and SPM (suspended particulate matter) levels were measured by using Handy Air Sampler (Low Volume Sampler).

    Results: There were 6613 houses which were surveyed and they had a total of 3104 children. Over all a total of 7.9% (n = 244) children were diagnosed as having asthma. Diagnosis of asthma varied in different areas but was the highest in Shahdara (14.2%). The number of children with asthma was significantly higher in upper socioeconomic class compared to others (Table 1) with p value < 0.001. Indoor SO_2, NO_2 and SPM level were measured in 819 houses. The mean level of indoor SO_2, NO_2 and SPM was 4.28 ± 4.61 mg/m3 (0.00 to 41.93 mg/m3), 26.70 ± 17.72 mg/m3 (0.00 to 141.13 mg/m3) and 722.0 ± 457.6 mg/m3 (80 to 2420 mg/m3) respectively. Use of biomass fuel and occupancy per room of more than 4 was significantly associated with increased SO_2 levels. SPM levels were significantly higher with presence of smoker in family and increased occupancy (> 4/room). Mean indoor SPM levels were significantly higher in the houses of asthmatic children in all areas and the difference was statistically significant. The mean indoor NO_2 levels were higher in houses of asthmatic children in all areas. The SO_2 levels were found to be higher in houses of asthmatic children in industrial and village areas

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Conclusion: Both indoor SPM levels and occurrence of asthma in children were found to be higher in industrial areas compared to residential and urban village areas. Further, the houses with asthmatic children in all these areas had still higher levels of indoor SPM as compared to houses without asthmatic children and the difference was statistically significant. Hence, this study suggests that industry plays an important role in increasing the concentration of indoor suspended particulate matter, and also increased occurrence of asthma in children in developing countries like India.

KEYWORDS: 1.CHILD HEALTH 2.AIR POLLUTION 3.CHILDHOOD ASTHMA 4.SPM LEVEL 5.INDOOR AIR POLLUTANTS

C. Women and Gender Issues

HEALTH

13. Singh, R., et. al. (2017)
    Acute Pulmonary Oedema in Pregnancy. *Journal of Medical College Chandigarh, Vol.7 (2): 4-7.*
    G19930

    INTRODUCTION: Acute pulmonary oedema (APE) in pregnancy is a life threatening event. With an incidence of 0.08 -0.5 percent, it is 1 the fourth most common cause of maternal morbidity. The maternal mortality in pregnant patients with acute pulmonary oedema is high, possibly because the obstetricians fear that the stress of labour or Caesarean delivery may worsen the already compromised cardiovascular state and concerns regarding foetal maturity delays intervention

    OBJECTIVES: To evaluate whether an early obstetric intervention reduces the morbidity and mortality in pregnant patients with pulmonary oedema.

    METHODOLOGY: Data of obstetric patients admitted to the obstetric ward and intensive care unit (ICU), with the diagnosis of pulmonary oedema was collected from January 2014 to July 2016 retrospectively. Group E (Early intervention): Patients in whom obstetric intervention was done within 6 hours of decompensation. Group L (Late intervention): patients in whom obstetric intervention was done after 6 hours of decompensation.

    RESULTS: The mean maternal age was 24.87 ± 4.78 years whereas the mean gestational age was 35.8 ± 3.1 weeks. 53 percent of the patients with APE had a primary diagnosis of pregnancy induced hypertension (PIH) whereas some (23.3%) presented with a mixed picture of anaemia, peripartum cardiomyopathy (PPCM) and/ or PIH. 70 percent of the parturients received ICU care whereas the rest (30%) were managed in the ward. 12 patients (80%) in group E and 8 patients (53.3%; p=0.25) in group L underwent a Caesarean delivery. The mean foetal age was comparable statistically in both the groups, ranging from 31-39 weeks in group E and 28-39 weeks in group L. The mean ICU stay was significantly longer in patients of group L. It was 6±3.57 days as compared to 3±1.46 days in group E (p<0.01). All mothers and babies survived in the early intervention group whereas 2 mothers (p=0.48) and 10 babies (p<0.01) expired in the late intervention group.

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CONCLUSION: An early obstetric intervention is needed in the form of vaginal or caesarean delivery in patients of acute pulmonary oedema due to any cause helps in significant reduction of maternal morbidity and foetal mortality.

KEYWORDS: *1.WOMEN HEALTH 2.MATERNAL MORBIDITY 3.FOETAL MORTALITY 4.ACUTE PULMONARY OEDEMA 5.PREGNANCY 6.GESTATION AGE.*

14. Danasekaran, R., Raja, P. and Ranganathan, K. (2017).
     Utilization of Antenatal Health Care Services among Fishermen Population in Kanchipuram District, Tamil Nadu: A Cross-Sectional Study. *Indian Journal of Community Medicine, Vol. 42(3): 159-162*
     G19931

Introduction: According to UN estimates maternal mortality ratio (MMR) in India during 1960 was 560 per lakh live births which has dropped to the 167 in 2011–2013. Moreover, it takes a herculean effort to achieve the Millennium Development Goal 5 regarding maternal deaths, i.e., MMR to be reduced three-quarters between 1960 and 2015. Major reasons being implicated for the high levels of MMR in the country are low literacy levels, inadequate availability of maternal healthcare services, especially emergency obstetric services. In India, the total fishermen population was about 4 million living in 8.64 lakh families. Moreover, 61 percent of the fishermen population was under Below Poverty Line category.

Objectives: To assess the utilization of antenatal health services and to identify the factors influencing their utilization among women of fishermen population in Kanchipuram district, Tamil Nadu.

Methodology: The cross-sectional study was carried out among the mothers in Kovalam area of Kanchipuram district with a sample size of 284 mothers.

Results: The study included 284 mothers from Kovalam area of Kanchipuram district. Among them, 162 (57%) were in the age group of 21–25 years, 63 (22%) were 30 years at the time of childbirth. Among the study participants, 100 (35.2%) were illiterates, 98 (34.5%) have studied till primary education, 55 (19.4%)have done secondary education, 28 (9.8%) have done some under graduation, and remaining 3(1.1%) have studied till post-graduation. With regards to their occupation, 107 (37.7%)of the mothers were homemakers, 129 (45.4%) were unskilled workers, 19 (6.7%) were having semi-skilled job, and remaining (10.2%) were doing skilled work. Among the mothers who enquired,174 (61.3%) were having their first child, 77 (27.1%) having a second child, 24 (8.5%) were having their third and remaining 9(3.2%) were having their fourth child. According to modified B. G. Prasad classification, 128 (45.1%) of the study subjects belong to socioeconomic class II, 119 (41.9%) belong to class III, 30 (10.6%) belong to class I, and only 7(2.5%) belong to class IV. Among the study population, 142 (50%) have confirmed their pregnancy in the Government sector, 58 (20.4%) in Private sector and the remaining 84 (29.6%) have confirmed by self. Regarding the place of registration, around 171 (60.2%) got registered with the government sector, 54 (19.1%) with private and 59 (20.7%) have not registered themselves. Of the total mothers, 103 (36.3%) had three antenatal visits, 66 (23.2%) had more than three visits, 88 (30.9%) had only two visits, and 27 (9.5%) had only one visit. Nearly 64.1 percent of the

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mothers have received two doses of TT, 56 (19.7%) have received a single dose, and 46 (16.2%) have not received transfusion-transmitted TT. Regarding the intake of IFA tablets, 13.03 percent had taken more than 100 tablets, 31.7 percent had 51–100 tablets, 28.5 percent had59.5 percent of the mothers had taken supplementary foods from those centers. During the antenatal period, 50.7 percent of the mothers had some complications. Complications experienced were anemia (34.7%), bleeding (14.6%), abdominal pain (12.5%), diabetes/hypertension (9.1%), fever (6.3%). Among the study population, 53.87% preferred Government sector for any maternal health services and the remaining (46.13%) preferred private sector. The major reasons for preference of Government sector include: Very nearby (11.76%), free treatment (31.37%), experienced health personnel (20.92%) and other benefits like cash benefits (24.19%). Likewise, the reasons for preference of private sector were better care (38.17%), care round the clock (12.98%), better hygiene (29.77%), etc.

CONCLUSION: Improving maternal health is one among the eight goals in MDG's and to achieve that, maternal healthcare delivery has to reach every mother in the community. Certain factors like the socioeconomic status of the population and level of education of the mother can have a significant impact on the utilization of antenatal healthcare services.

KEYWORDS: *1.WOMEN HEALTH 2.ANTENATAL CARE 3.FISHERMEN 4.HEALTHCARE PROVIDER 5.MATERNAL HEALTH 6.HEALTH PERSONNEL.*

15.   Suresh, N. and Reddy, R. P. Lalitha. (2017).
        Effect of Lifestyle on Body Fat Percentage and Visceral Fat in Indian Women
        with Above Normal Body Mass Index. *International Journal of Current Research
        and Review, Vol. 9 (19): 32-36.*
        G19932

INTRODUCTION: Obesity is a major public health issue in India and worldwide and its prevalence is increasing. Obesity is associated with many health disorders such as diabetes mellitus, hypertension, dyslipidemia, and coronary heart disease especially when fat accumulation is in the abdominal area(visceral compartment).

OBJECTIVES: to explore the effect of lifestyle on body fat percentage and visceral fat in Indian women with above normal Body Mass Index.

METHODOLOGY: A sample of 100 subjects from various fitness centers in Bangalore, Karnataka, India attending a weight management program were selected by random sampling method.

RESULTS: The mean age group of the study sample was 30.46 years (±3.4) with a mean weight of 73.48 kg (±10.57)and mean height of 159.77cm (±4.77). The mean BMI of the study group was 28.96(±3.93) with 67 percent of the subjects in the range of 25 – 29.9 and 33 percent above 30. Majority (63%) of the subjects were non-vegetarians followed by 27 percent vegetarians and 10 percentovo-vegetarians. Majority (65%) of the subjects were in the habit of consuming alcohol occasionally and 30 percent of the subjects were smoking on a regular basis. The duration of exercise being 60 minutes/day, 84 percent of the subjects exercised between 3-5 times/ week followed by 16 percent who exercised 0-3 times/week. The range of healthy percentage body fat is between 21-33 percent and healthy level of visceral fat is between 0-12. The results of the present study showed that all the subjects had a body fat percentage above 33 percent (41.4 ±4.61) and 97 percent of the subjects had a visceral fat reading in the normal range (8.26 ±2.08). The dietary intake data showed that the mean energy consumption of the study group was 1945Kcal (±255) with a mean carbohydrate consumption of 285.9g (±49.1), mean protein consumption of 61.5g(±14.4) and mean fat consumption of 60.3g(±16.5). Weight gain is usually due to excessive consumption of calories along with lifestyle habits and low physical activity. Along with the daily caloric intake, the composition of the diet may also be an important factor in understanding obesity and its prevention.

CONCLUSION: Classification of subjects into overweight and obesity is necessary in the treatment. Body Mass Index is the most commonly used method for such classification. The study also showed the positive impact of exercise on body fat however further research on the type of exercise and its impact on body fat can be studied.

KEYWORDS: 1.WOMEN HEALTH 2.OBESITY 3.PROTEIN CONSUMPTION 4.BODY MASS INDEX 5.BODY FAT 6.VISCERAL FAT 7.MEAN ENERGY CONSUMPTION 8.DAILY CALORIC INTAKE.

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16. Mishra, P., et al. (2017)
        Vitamin D Status of Adult Females Residing in Ballabhgarh Health and
        Demographic Surveillance System: A Community-Based Study. Indian
        Journal of Public Health, Vol. 61 (3): 194-198
        G19933

INTRODUCTION: Vitamin D also known as sunshine vitamin is photosynthesized in the skin after exposure to ultraviolet (UV)-B rays. Sun exposure alone ought to suffice for Vitamin D sufficiency. The ubiquitous distribution of Vitamin D receptors in the body, controlled by nearly 3000 genes, suggests that a deficiency could have widespread health implications. Biochemical studies have implicated Vitamin D Deficiency (VDD) in many chronic diseases including, but not limited to, infectious diseases, autoimmune diseases, cardiovascular diseases, diabetes, and cancer.

OBJECTIVES: To estimate the prevalence of VDD among adult females aged 20–60 years residing in a rural community of North India, and to find its association with various socio behavioral risk factors.

METHODOLOGY: An analytical cross-sectional study conducted in a rural community of Ballabgarh development block in Faridabad district, Haryana.

Results: Of the 400 eligible for the study, 392 gave written consent to participate in the study. Blood sample could be collected from 381 participants. The mean age of the study population was 37.7 years with a standard deviation (SD) of 11.7. The prevalence of VDD was 90.8 percent (95% confidence interval [CI] – 87.5–93.3), while that of Vitamin D insufficiency was 8.9 percent (95% CI – 6.4–12.2). On logistic regression analysis, 24 h calorie intake, protein intake, and prediabetes status of the participants were significantly associated with VDD. The mean duration of sun exposure was 159 min (SD: 118) in Vitamin D deficient group in comparison to 175 min (SD: 117) in non-deficient group. The mean calorie intake among the Vitamin D deficient group was 1869 (SD: 510) Kcal while it was 1999 (SD: 519) in non-deficient group. Among the study participants, only 11 (2.8%) reported that they eat egg (once in a week) while only 7 (1.8%) reported that they consumed nonvegetarian food (once in a week). None of the study participants reported consuming alcohol, while 7.6 percent of Vitamin D deficient were consuming any kind of tobacco products in comparison to 14.3 percent of nondeficient group consuming tobacco.

Conclusion: Very high prevalence of VDD was observed in the females (20–60 years) of Ballabgarh HDSS. These females are well exposed to sun on most of the days not only in leisure time but also during household work.

KEYWORDS: *1.WOMEN NUTRITION 2.VITAMIN D DEFICIENCY(VDD) 3.MICRONUTRIENT 4.ULTRAVIOLET (UV) B RAYS 5.NONDEFICIENT GROUP*

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17.   Ramaiah, R. and Jayarama S. (2017).
        Domestic Violence among Ever Married Women of Reproductive Age Group in a Rural Area of Karnataka: A Cross Sectional Study. *National Journal of Community Medicine, Vol. 8(3): 139-142.*
        G19934

INTRODUCTION: Domestic violence described as the power, misused by one adult in a relationship, to control another. Most commonly the victims are women and the perpetrators are their husbands. World Health Organisation has defined domestic violence as "the range of sexually, psychologically and physically coercive acts used against adult and adolescent women by current or former male intimate partners.

OBJECTIVES:1. To determine the prevalence of domestic violence among the ever married women in reproductive age group. 2. To identify the types of domestic violence and factors associated with it.

METHODOLOGY:A Community based, cross sectional study was conducted in Javarnahalli, a rural field practice area of AIMS, BG Nagara, Mandya. Study population constituted all 186 married women of reproductive age group (15-49 years) residing in Javarnahalli.

RESULTS: The mean reproductive age group of ever married woman was 26.32 ± 4.34 years while mean age of their husbands was 32.14 ± 5.47 years. Among the study participants, 28.9 percent were illiterate, 34 percent had completed primary education, 21.9 percent studied upto middle school, 9.6percent passed secondary level and 6 percent studied upto higher secondary and above. 52.5 percent of the study participants were homemakers, 24 percent were unskilled laborers, 14 percent were skilled laborers, 9 percent were self-employed or having their own business. Among the husbands, 3.2 percent were unemployed, 4.8 percent were professionals, 21.6 percent were unskilled laborers, 21.3 percent were skilled laborers, 29.7 percent were self-employed. Out of 186, 101 study participants reported domestic violence. Thus the overall prevalence of domestic violence was found to be 54.3 percent. Out of 101, 76 reported either physical or psychological violence. 42.1 percent reported both current and lifetime psychological violence. 25 out of 101 respondents reported sexual violence, out of which 48 percent reported both current and lifetime sexual violence. 82.2percent of the study participants who suffered domestic violence reported their husbands as the perpetrators, while 17.8 percent reported other perpetrators causing domestic violence. Dowry related problem (17.8%) and alcohol addiction of husband (40.6%) were reported to be the main reasons of domestic violence. Study participants of the age group (26-30yrs) reported a higher prevalence of domestic violence.

CONCLUSION: The overall prevalence of domestic violence was found to be 54.3 percent. In this context, more stringent actions to be taken through Government legislation, making women more self-reliant by increasing their literacy rate, financially stable, community mobilizing strategies creating community awareness can be recommended.

18.   Jeyarathnam, M. (2017).
        Factors Influencing Work-Life-Balance of Women Professionals in It Industry-A Study in Tamil Nadu, India. *International Journal of Humanities and Social Science Invention, Vol. 6 (7): 26-33.*
        G19935

INTRODUCTION: Work-life-balance improves quality of work life and helps an individual to sustain in business. Maintaining balance encourages optimum working hours that ultimately enhances efficiency. Balancing work and family issues are increasingly important to employees and employers and are a universal worldwide phenomenon. Indian women who used to prefer teaching, nursing, medicine and banking professions are now attracted towards IT profession and join IT firms in large number in various cadres.

OBJECTIVES: To identify the factors that influence work-life-balance of women professionals in IT industry in Tamil Nadu, India.

METHODOLOGY:35 components influencing work-life-balance given in the questionnaire and the response of the women were measured by applying Likert type five point scale.

RESULTS: The respondents have agreed that 28 components have influenced the work-life-balance of respondents in the first stage. The factor analysis results in 5 important work-life-balance factors of the respondents and the names were considered based on the list of items under each component and the respective loadings of the item. The rescaled factor loadings display Job Nature, as first factor (with factor loadings 0.624, 0.752, 0.598, 0.757, 0.697, 0.713, 0.542, 0.484, 0.576), Work Loadas second factor (with factor loadings .755, .746, .773, .662, .664, .699, .430), Work Environment as third factor (with factor loadings .553, .422, .387, .388, .436, .466, .581, .667, .689, .560) Organizational Support as fourth factor (with factor loadings 0.463, -0.490, 0.636, 0.674, .613, .496) and Family Domain (with factor loadings .652, .787, .651) as fifth factor. Five dominant work-life-balance factors, which consist of thirty five worklife-balance components, accounted for 56.182 percent of total variance. Job Nature is the dominant factor that influences the work-life-balance since its Eigen value and percent of variation explained are 13.001 and 12.84 respectively. Work load is the next significant factor with Eigen value of 2.081 and percent of variation explained is 11.34. Work environment is the third important factor followed by Organisation Support and Family Domain in terms of their Eigen value of 1.838, 1.428 and 1.316 and percent of variation explained with value of 13.303, 10.864 and 7.838 respectively. It is concluded that Job Nature, Workload, Work Environment, Organizational Support and Family Domain are the predominant factors of work life balance. The Pearson correlation test has been applied to find out whether there exists a positive correlation among factors with respect to aspects influencing work-life-balance. The correlation among factors such as Work Environment, Work Load, Job Nature, Organizational Support and Family Domain

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CONCLUSION: The project based nature of work, high reliance upon technology, overwork, job insecurity and contract work breed undesirable consequences of work-life conflict. The organizations may be sensitized to work-life-balance issues at all levels. In modern days, dual career couples are found in large number. There is a need for systematic research in order to gain relevant insight into the work-life-balance practices implemented by IT firms as organizational intervention.

KEYWORDS: 1.WOMEN WELFARE 2.FAMILY SUPPORT 3.INFORMATION TECHNOLOGY 4.JOB NATURE 5.FAMILY DOMAIN 6.ORGANIZATIONAL SUPPORT 7.WORK ENVIRONMENT 8.WORK LOAD 9.WOMEN PROFESSIONALS 10.WORK-LIFE-BALANCE.

19. Salian, P.V., and Leelavathi, D.S. (2014).
MGNREGA and Women Participation in Andhra Pradesh: Performance and Challenges. *International Journal of Management and Development Studies. Vol. 3 (5): 1-17.*
G19936

INTRODUCTION: The gender disparities prevailing in the countryside have been adversely affecting the quality of life of rural women. Andhra Pradesh is one of the foremost states in the country in terms of overall development. However, it has a number of challenges to address; significantly, the poverty and unemployment levels especially in the rural areas. The vast majority of people in rural Andhra Pradesh depend on employment for their primary source of income. In this regard, MGNREGA is a great milestone towards the attainment of the women empowerment and bridging the gender imbalances at the household and community levels in rural areas. The gender sensitive, demand-led MGNREGA has the potential to correct the anomalies in labour market along with gender based discrimination.

OBJECTIVES: Whether the Performance of MGNREGA is in consonance with the rate of poverty and unemployment in the State? ii. What are the programmatic and implementation issues and challenges in MGNREGA in Andhra Pradesh? iii. What kind of further steps are needed to facilitate more women to participate under the programme?

METHODOLOGY: Secondary data collected from various round of NSS Employment and Unemployment Survey and Consumer Expenditure Survey to know and understand about employment, unemployment, work participation by women. The data on poverty rate and numbers have been collected from Planning Commission. The MGNREGS performance reports have been collected from MGNREGA Programme MIS.

RESULTS: At all-India level the share of self-employed has come down and share of casual employed has increased, still the share of self-employed (54.2%) in 2009-10 is more than casual employed (38.6%).During 2009-10, LFPR for males and females in rural areas in Andhra Pradesh were higher compared with all India level. The LFPR for males was 60.6 per cent and females 44.7 per cent in rural Andhra Pradesh. During the same period at all-India level the LFPR in rural areas for males and females is 55.6 per cent and 26.5 per cent respectively. The decline in LFPR in 2009-10 compared to 2004-05 is much higher among rural females. Among the rural females, the LFPR declined by 3.8 per cent in Andhra Pradesh compared to about 6.5 per cent at the all-India level. The gender differential in the WPR was distinct in Andhra Pradesh. The WPR for rural males was 60 per cent while it was 44 per cent for rural females during 2009-10 in Andhra Pradesh. During the same period WPR among males and females at all-India level is 55 per cent and 26 per cent

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respectively. In Andhra Pradesh, in rural females the WPR has declined to 4 percentage point in 2009-10 compared to 2004-05, whereas at all-India, decline in WPR among rural females is about 6.6 percentage point during the same period. The decline in male WPR in rural Andhra Pradesh is very marginal.The rural unemployment rates in Andhra Pradesh as well as at All India levels decreased from 2004-05 to 2009-10. In Andhra Pradesh, the rural unemployment rate has however decreased from 10.9 per cent in 2004-05 to 7.5 per cent in 2009-10. Further, the percentage increase wage rate in rural Andhra Pradesh in 2009-10 compared to 2004-05 for male is 130 percent and female is 145 percent. Similarly, during the same period, the increase at All India level is 85 percent and 97 percent respectively for male and female respectively.

CONCLUSION: Even though, the women participation in MGNREGA is quite high in Andhra Pradesh, to eradicate the problems of rural unemployment and underemployment especially in women and to reduce the differentials in unemployment rate among male and female, the further more participation of women in MGNREGA is required. The high incidence of poverty is directly related to prevalence of under employment and unemployment on large scale. The rural workforce especially women, continues to suffer due to excessive seasonality of employment, lack of wage employment opportunities and low wage rates. Further, the MGNREGA women workers have to be organized into SHGs, if they are not members. The members of SHGs have to be sensitized on social issues and members be provided with counselling services to redress their grievances.

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