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A. Research Abstracts on Child Development

CHILD WELFARE

1. Jain, K. (2018).
Influences of Gender, Religion, Dietary Patterns, and Mixed-sex Education on Aggressiveness in Children: A Socio demographic Study in Municipal Primary Schools of South Delhi. *Indian Journal of Public Health, Vol. 62 (1): 21-26.*
G-21106

Introduction: Incidences of increased level of violence among youth and especially the teenagers is on a rise. This global tendency of hyper aggressiveness surmounts to serious public health problem, resulting significantly in not just individual suffering but also pose a heavy socioeconomic burden to the society.

Objectives: The present study was undertaken to assess levels of aggressiveness for detecting highly aggressive children in sample populations of primary school children in an urban setting and determine significant bio-socio-cultural risk- modifying factors in this scenario.

Methodology: A sample of 2080 healthy school students among 5 South Delhi Municipal Corporation (SDMC) primary schools in Mehrauli, New Delhi was drawn. Quantitative assess levels of aggressiveness of self-report questionnaire was used as a tool.

Results: The individuals in the study sample (851 boys and 1229 girls) belonged to low socioeconomic status families of unskilled(laborers, helpers, maids) or semiskilled (masons, cooks, gardeners, watchmen, tailors, electricians, plumbers etc.) wageearners. Majority of parents were either illiterate or studied up to middle school level. The average family income varied between Rs. 10,000 and 25,000 per month. Students attending III-V classes were between 7 and 14 years of age (average 8.7 $\pm$ 1.0). According to WHO classification, most (83%) were children (age group 7-10 years) and rest (17%) were young adolescents (age group 11-14 years, average11.6 $\pm$ 0.7). Majority (78%) were from Hindu families and rest (22%) were Muslims. Among the study population, half (54%) ate meat at home (omnivores) whereas 46 percent excluded meat from their diets (ovo- lacto vegetarians). Students were provided with mid- day meals in the schools consisting of traditional North Indian vegetarian diet (dal, roti, rice, and vegetables). According to data, majority (80%) children lived in nuclear families (only parents and siblings), whereas other (20%) children lived in joint families. Two-third (68%) children's mothers were homemakers; (32%) mothers also in earnings by working outside home. The OA- score measured using the self report questionnaire. The distribution is

asymmetric and varies over a large range. The average OA score of the sample is 33.4 with a standard deviation of7.8. Median of the sample is 32.6, interquartiles are Q1 = 28.0and Q3 = 38.0 and interquartile range is 10. From the distribution of the OA Scores, 3 subgroups of children were distinguished. Low/nonaggressive children (OA Scores range16‑32) comprised 47.3 percent; moderately aggressive (OA Score:33 ‑ 48) were 48.4 percent; and highly aggressive individuals(OA Score: 49‑64) constituted only 4.3 percent.

Conclusion: The epidemiological data presented in this study draws attention to adoption of vegetarian diets and extending education in the coeducational elementary schools as important protective factors against the development of high aggressiveness and antisocial behaviors, especially in boys.

***KEYWORDS**: 1.CHILD WELFARE 2.OA-SCORE 3.COEDUCATION 4.ELEMENTARY SCHOOLS 5.MIXED-SEX EDUCATION 6.LEVEL OF AGGRESSIVENESS 7.DIETARY PATTERN*

2. Gupta, H. and Sabde, Y. (2018).
Medico-Social Characteristics as Predictors of School Achievements in Students with Intellectual and Developmental Disabilities: A Follow Up Study in Ujjain and Shajapur Districts of Madhya Pradesh, India. *Indian Journal of Public Health, Vol. 62(1): 39-46.*
G21107

Introduction: The generalized neurodevelopmental disorder as Intellectual development disorder (IDD) or mentalretardation (MR) is characterized by significantly impaired intellectual and adaptive functioning and an IQ under 70. Although, IDD has a low prevalence (1‑3%) in India, there is a need to generate awareness in the community with respect to characteristics, needs and individual potential of People with Intellectual and Developmental Disabilities (PwIDD), the goal further extends to have an inclusive social life while staying in the family and taking part in community life.

Objectives: To analyze the effect of the demographic variables related to disabled child, his/her parents and the family; their schooling pattern and types of study settings and the associated comorbidities on improvement in the performance score of students attending these study settings in one academic year.

Methodology: The study was conducted among children (n = 204) with intellectual disability receiving rehabilitation services in centers run by a non-governmental organization in two districts of Central India.

Results: The findings revealed that assuming proportion of females to be half (50%) the Z score value was calculated to be −5.46 (P < 0.00). Another assumption taking proportion of rural population to be 70%, the Z score value was −19.51 (P < 0.00). The results further illustrated the distribution of scores according to factors associated with schooling. It indicated that overall improvement was more likely to be found in special school setting (14.30) than in ITC (13.97), while the difference was although calculated to be statistically insignificant. Further analysis was performed on the parameter of the distribution of scores according to the factors associated with disability, for variables where P value for ANOVA is <0.05 using post hoc Tukey's test. Results indicated statistically significant difference in mean scores between parents giving no time to their children at home then the parents giving 1‑2 hours. Further statistically significant differences were found between mean scores of poor and neutral / good performing classes and not between neutral and good performing classes. Further post hoc analysis revealed statistically

significant differences between mean scores of mild and severe degree of retardation. The overall mean performance score improvement in all the study settings was 14.15 (12.74–15.56) over one academic year. Analysis by paired t- test revealed significant improvement in overall mean performance score in PwIDD (P = 0.00).

Conclusion: Significant improvement was observed in the performance scores of children with intellectual disability in all study settings. The overall improvement of students in ITCs was at par with special school. Higher birth order, more time spent by parents for child's development at home, high performing classes, absence of epilepsy and psychiatric comorbidities, and associated handicap were significantly associated with improvement in overall mean performance score.

KEYWORDS: *1.EDUCATION 2.INTELLECTUAL DEVELOPMENT DISORDER (IDD) 3.MENTAL RETARDATION (MR) 4.PEOPLE WITH INTELLECTUAL AND DEVELOPMENTAL DISABILITIES (PWIDD) 5.NEURODEVELOPMENTAL DISORDER.*

3. Bhuvaneswari, N., et al. (2018).
An Epidemiological Study on Home Injuries among Children of 0–14 Years in South Delhi. *Indian Journal of Public Health, Vol. 62 (1): 4-9.*
G21108

Introduction: Among the important public health problem, injuries and specifically unintentional injury causes nearly 80 percent of the injury deaths (3.9 million deaths) (WHO Global Burden of Disease 2004). Nearly one-fourth of the total unintentional injury deaths (0.8 million)occurred in children aged ≤18 years, mostly in the low and middle income countries. The place of injury for the childhood unintentional injuries take place in and around the home as children spend most of their time at home.

Objectives: To study the magnitude and pattern of home injuries in children aged 0‑14 years and to assess the environmental risk associated with home injuries.

Methodology: A community-based, cross-sectional study conducted in a ward of Mehrauli, South Delhi containing 20,800 households. The total sample of children was selected from 400 households by systematic random sampling, with sampling interval being 52.

Result: Out of the 622 children of 0‑14 years studied, majority (53.7%) were males as compared to females (46.3%).The prevalence of home injury was found to be two-fifth (39.7%) in the last 1 year, significantly higher in the age group of 1‑3 years (54.3%) followed by 5‑10 years (45.1%) (P = 0.000). The total number of injuries and the average number of injuries in girls were significantly higher than those of boys. The most common type of home injury was falls (59.5%) followed by injury with sharps and burn injury. A proportion of the environmental risk was found in unsafe electrical points (95.3%), unsafe stairs (100%), unsafe kitchen with access to sharps (29.3%), access to active fire (19.3%), and unsafe furniture and objects (22.8%) respectively. Terrace was not safe in 15.1 percent of the households as injury causing items were present. There was a significant association off alls and slippery floor (P = 0.002), injury with sharps and access to sharps (P = 0.000), burns/scalds with unsafe kitchen(P = 0.000), and access to fuel (P = 0.007).

Conclusion: The study highlights that although about three-fifth (60%) of home injury did not occur in the children during the study period, the risk of injury in the future is high. Parents education and the children at schools and environmental modification are important strategies for prevention of home injury.

KEYWORDS: *1.HEALTH 2.CHILD HEALTH 3.CHILDHOOD INJURIES 4.HOME INJURY 5.IMMUNIZATION 6.VACCINATION 7.UNINTENTIONAL INJURIES 8.BURN INJURY 9.UNSAFE KITCHEN 10.ENVIRONMENTAL RISKS 11.ACCESS TO FUEL 12.ACCESS TO ELECTRIC POINTS 13.SLIPPERY FLOORS.*

4. Solomon, R.S., et al. (2018).
Early Neurodevelopmental Outcomes After Corrective Cardiac Surgery in Infants. *Indian Pediatrics, Vol. 55 (5): 400-405.*
G21109

Introduction: An analysis of Indian children with uncorrected CHD has shown that they are at increased risk of developmental delay. These can have a significant impact on neuro developmental outcomes despite high quality surgical expertise and post-operative intensive care.

Objectives: To assess neuro developmental status in Indian infants undergoing corrective surgery for congenital heart disease (CHD) and to analyze factors associated with neurodevelopmental delay.

Methodology: A cross-sectional study. Tertiary-care pediatric cardiology facility.

Result: Of the 162 infants (92 males) included, 52 (32.1%) were neonates. There was no in-hospital mortality. Four patients (2.4%) died on follow-up; 3 had residual cardiac issues, and in one cause of death was unknown. RACHS category 1 and 2 constituted 96 (59.3%) of the surgical procedures. Prenatal diagnosis was made in some (4.3%) of the patients. The distribution of acyanotic (80, 49.4%) and cyanotic CHD were similar. Preoperative weight, height, head circumference were abnormal in 110 (67.9%), 48(29.6%) and 60 (37%) children, respectively. Preoperative ICU care was needed in 56 (36.4%) with a median stay of 4 (1-30) days; 15 (9.3%) had preoperative sepsis. The median age at surgery was 60 days(2-365). Major intra operative complications occurred in 10infants (6.2%). One had a major hypoxic event while 9patients (5.5%) had arrhythmias with hemodynamic compromise. Re-institution of Cardiopulmonary Bypass was required in 7infants (4.3%). The median CPB (Cardiopulmonary Bypass) and ACC (Aortic Cross Clamp) time were 109min (41-457) and 58 min (10-274), respectively. The mean (SD) *hematocrit* and perfusion pressure on CPB was 28.4 (3.11%) and 38.4 (4.11%) mmHg. The median duration of postoperative ventilation and inotrope was 42 (3 - 552) and 72 (2 - 432) hours, respectively. Delayed sternal closure was done in 8infants (4.9%). Mean (SD) postoperative ICU stay was7.3 (5.41) days. Postoperative sepsis occurred in 32infants (19.8%). Re-intubation was required in 15 (9.3%)infants. Anthropometric indices improved on one-year follow-up with abnormal weight for age and weight/height Z scores in 35 (23%) and 25 (16.4%) respectively. Height-for-age and head circumference Z scores were abnormal in 42 (27.6%) and 35 (23%), respectively. At three months after corrective surgery, delayed PDI (Psychomotor Developmental Index)was seen in 53 (33.5%) and mean (SD) PDI score was81.2 (33.02%); this improved to 92.4 (26.02%) at one-year follow-up (22, 14.5% delayed).

Conclusion: The study concludes that the pattern of the psychomotor developmental and mental developmental scores are effective in delaying the process amongst 14.5 percent of infants after a year of corrective infant heart surgery.

KEYWORDS: *1.HEALTH 2.CHILD HEALTH 3.PEDIATRIC CARDIOLOGY 4.NEONATAL CARDIAC HEALTH 5.CONGENITAL HEART DISEASE (CHD) 6.RISK ADJUSTMENT FOR CONGENITAL HEART SURGERY 1 (RACHS-1) CLASSIFICATION 7.NEURODEVELOPMENTAL DELAYS 8.ACYANOTIC CHD 9.CYANOTIC CHD 10.CARDIOPULMONARY BYPASS 11.PREOPERATIVE ICU 12.INOTROPE 13.POSTOPERATIVE VENTILATION 14.POSTOPERATIVE ICU STAY 15.SEPSIS 16.PSYCHOMOTOR DEVELOPMENTAL INDEX (PDI) 17.AORTIC CROSS CLAMP (ACC) 18.HEIGHT-FOR- AGE 19.HEAD CIRCUMFERENCE Z SCORES.*

5. Shaikh, A.M., Inamdar,N.R., and Singh, D.K. (2018).
Association of Iron Deficiency States and Febrile Seizures in Children : A Case Control Study. *International Journal of Research in Medical Sciences. Vol.6(3): 869-877.*
G21110

INTRODUCTION: Anemia is just one manifestation of iron deficiency, there are other forms of mild to moderate iron deficiency in which anemia is absent, but tissue function is impaired. Greater concern is regarding the risk of recurrence of the same. The magnitude of the problem as evidenced by its high incidence of 3-4 percent in young children cannot be underestimated. Iron deficiency affects at least a third of the world's population and is second only to hunger, as a major worldwide, nutritional problem.

OBJECTIVES: to identify iron deficient states or anemia in children with febrile seizures as evidenced by low hemoglobin, altered RBC indices and altered iron profile, and to determine the association of iron deficiency states or anemia with febrile seizures.

METHODOLOGY:50 cases and 50 controls were enrolled based on the inclusion and exclusion criteria were included in the sample.

RESULTS: Serum Ferritin level was low in 2 percent cases, while it was normal in 8 percent cases and high in rest (90%) cases. Comparing cases and controls using Students "t" test, it was found that low Ferritin was not significantly associated with occurrence of febrile seizures (p=0.276). About 12 percent of cases were found to have latent Iron deficiency as evidenced by low serum iron, while 28 percent of cases and the same percent (28%) of controls had a high TIBC (Total Iron Binding Capacity).Comparing cases and controls using Students "t" test, it was found that low Serum Iron was not significantly associated with occurrence of febrile seizures (p=0.832). Odds ratio is 6.68. Similarly, no significant difference was found between TIBC among cases and controls (p=0.721). The odds ratio was 0.81 which was statistically significant. The median Serum Iron among cases though within the normal range-128.6 mcg/dl was higher than that of controls- 128.2mcg/dl, which was statistically not significant. (p=0.182). Median TIBC among cases though in normal range-368.5mcg/dl was higher compared to controls -309mcg/dl however the difference was not found to be statistically significant (p=0.434). Frank Iron deficiency anemia as evidenced by low Hb was found in three-fourth (74%) of cases and two-thirds (66%) of controls. In the present study 58 percent of cases and half (50%) of controls had PS evidence of Iron deficiency with no significant

statistical difference. In the present study, more than half (54%) cases and a third (34%) controls had a low MCV with median MCV among cases though lower than normal range-67.8flbeing much lower than in controls-71.9 with no statistical significance (p=0.714). By using Students “t” test, no significant difference in MCH levels was found between cases and controls (p=0.625). The odds ratio was 1.65 which was not statistically significant. 46 percent of cases and 26percent of controls had a high RDW. The median RDW among cases was lower incases-14.5 compared to controls -13.8 with no statistical significance (p=0.098).

CONCLUSION: It is noted that iron deficiency anemia is prevalent among both cases and controls. Latent Iron deficiency state suggested by low Serum Iron and High TIBC in cases and control group was found not significant in our study. both the groups had a high prevalence of iron deficiency anemia with statistically significant lower Median Serum Ferritin among children with febrile seizures proving the hypothesis that pre-latent iron deficient state in children are more prone for febrile seizures.

KEYWORDS: *1.HEALTH 2.CHILD HEALTH 3.IRON DEFICIENCY 4.ANEMIA 5.TOTAL IRON BINDING CAPACITY 6.FEBRILE SEIZURES 7.MEAN CORPUSCULAR VOLUME (MCV) 8.MCV LEVEL 9.RDW 10.RED CELL DISTRIBUTION WIDTH 11.MEAN CONCENTRATION OF HEMOGLOBIN (MCH) 12.SERUM FERRITIN.*

6. Aggarwal, A.K., et.al. (2018).

An Alternative Approach for Supportive Supervision and Skill Measurements of Health Workers for Integrated Management of Neonatal and Childhood Illnesses Program in 10 Districts of Haryana. *Indian Journal of Community Medicine; Vol. 43(01): 40-43.*
G-21111

INTRODUCTION: For the proper implementation of Integrated Management of Neonatal and Childhood Illnesses (IMNCI) programme and trainings, there is a room to assess the skills acquired by the health workers for effective performance, which also requires an able supervision without which their knowledge and skills shall diminish over time.

OBJECTIVES: To assess the performance of the health workers using established tools during training and supervision; to workout strategy to implement supportive supervision (SS); and; to measure the impact of the training using routine health
system data.

METHODOLOGY: The study was conducted in ten high- priority districts of Haryana. Longitudinal prospective study design. The data were captured from routine health management information system, for 4 months preceding intervention, for 4 months after the intervention for both intervention and control blocks of the same district. Control block was chosen randomly from each district.

RESULTS:A total of 240 participants were trained. About 216participants attended the pre-training assessment test, 229attended 1st post-training assessment test, and 232 attended the2nd post-training assessment test. Two rounds of SS followed this, wherein 204 and 176 trainees participated, respectively. Mean skill scores in all five- group observations improved significantly after the trainings and supervision. The mean score at pretest was 2.1 (95% confidence interval [CI]: 1.9‑2.2,21% of the total score). The score improved from 21 percent to 70 percent at post-test 1 (mean 7.0, 95% CI: 6.7‑7.2), and to 81 percent at post-test2 (mean 8.1, 95% CI: 7.8‑8.2).About 2‑3 weeks after the end of training, there was a downward deflection of 10 percent score at SS round 1 from post-test2 (mean 7.0, 95% CI: 6.6‑7.2), which thereafter improved to 80 percent at SS round 2 from SS round 1(mean 8.0,95%CI: 7.7 ‑ 8.2). The increase in scores was tested for statistical significance using paired students test. For young infants aged 0‑2 months, median increase was 0.15 percent in control areas and 57.7 percent in intervention areas ($P < 0.01$). For children between 2 months and 5 years of age, the increase was 30.8 percent in control and 98.3 percent in intervention blocks ($P < 0.01$)

CONCLUSION: The findings of the study suggests that Current refresher training package with method to assess skill scores and IMNCI camp approach for SS can be success fully applied in the health system.

KEYWORDS: *1.HEALTH 2.CHILD HEALTH 3.SKILL MEASUREMENTS 4.INTEGRATED MANAGEMENT OF NEONATAL AND CHILDHOOD ILLNESSES 5.IMNCI.*

ICDS

7. Ruia, A. et.al. (2018).
An Analysis of Integrated Child Development Scheme Performance in Contributing to Alleviation of Malnutrition in Two Economically Resurgent States. *Indian Journal of Community Medicine. Vol.43 (1): 44-48.*
G21112

Introduction: The largest malnutrition fighting programme of the world, Integrated Child Development Scheme (ICDS), has been implemented in India for more than four decades. No matter the programme being implemented at a vast scale, the outcome in the socially backward states has been still under the purview. In this regard, the Global Hunger Index indicates that on the whole India fares poorly and figures almost at bottom, below even some Sub Saharan countries, along with some substantial improvements in states like Gujarat as well as unsatisfactory performances in states like Bihar.

Objectives: To hold a critical comparative analysis of malnutrition with special emphasis on ICDS (with respect to finances, infrastructure, training, performance) in the two economically resurgent states of Gujarat and Bihar.

Methodology: An exploratory study using secondary data sources (for ICDS performance) to critically analyze malnutrition status in the states of Bihar and Gujarat.

Results: The findings on the basis of secondary data reveals that malnutrition rates for Bihar have been high at 82.1 percent in 2012 as compared to 38.8 percent for Gujarat and those for severe underweight being14.7 and 10.1 percent, respectively, for the year 2015.The funds released for ICDS and SNP during years 2006 to 2015, it was observed that Bihar state were not able to utilize funds completely. During 2006-08, Bihar was not able to spend the funds completely. However, the data further revealed that in the next few years, the same state of Bihar was not justable to spend the entire fund allocated under the ICDS head, but also included the state share expenditure. This whole expenditure by Bihar was found to be in excess of allocation. While, Gujarat, on the other hand, spent funds in excess of central allocation (10%), through the state share spending as well. For the SNP component, Bihar spent almost twice as much funds released to it. However, when the expenditure is compared to requirement, it is found that there is a short fall of approximately 25percent, in the initial years of the decade, but toward the later part (2012–2015), no shortfall on the part of expenditure was even higher than the requirement projected (average 25%). Gujarat state for the SNP component, spent in excess of two

and half times of the funds released. However, deficit (from5% to 40%) was found when the expenditure was compared to the requirement. While seeking data, in terms of utilization of funds allotted for flexi funding of Anganwadi centers (AWCs), entire allotment was utilized by Gujarat, which Bihar could not. As far as purchase of medicine kits was concerned, Bihar performed marginally better than Gujarat (83% as compared to 100%).In the year 2006–2007, less (71.3%) projects were operational in Bihar as against Gujarat (86.9%). In the year 2015–2016,these figures improved to 87.5 percent for Bihar and 95.5 percent for Gujarat. While three-fourth (75%) ICDS buildings in Gujarat belonged to ICDS, while just a fourth (25%) in Bihar, and others were rented. Most buildings in Gujarat (97%) were pucca/semi pucca unlike Bihar (78%). Cooking, storage, and working space in AWCs too were available significantly more frequently in Gujarat (70%) as compared to Bihar (16%). Toilet and drinking water facilities too were available to almost all AWCs in Gujarat as against Bihar (35%).

Conclusion: The record as above in the findings clearly states that Gujarat has showed a remarkable improvement in addressing malnutrition. Severely malnourished children (at <1% in earlier years) had risen marginally to 4.56in 2010–2011 and again fell to 1.61 percent in 2013–14. On the other hand, another state Bihar, has 26 percent severely malnourished children. Moreover, so far as Bihar is concerned, since there is no shortfall of funds for ICDS, a greater introspection needs to be done into other determinants of malnutrition, and immediate corrective measures are required in the implementation of ICDS to offset this human challenge.

KEYWORDS *1.ICDS 2.ECONOMIC GROWTH 3.MALNUTRITION 4.SNP 5.FUND UTILIZATION 6.NON-UTILIZATION OF FUNDS 7.AWCS 8.AWWS 9.FINANCIAL MONITORING 10.GLOBAL HEALTH INDEX 11.COOKING FACILITY 12.WORKING SPACE 13.STORAGE SPACE.*

8. India, Min. of Women and Child Development. (2017).
Need Assessment for Crèches and Child Care Services. 150p.
G-21113

Introduction: The situation of children under six has been the subject of policy attention for some time. The Government of India has been seized of the matter since the mid-1970s when the flagship programme of the ICDS was launched and it is unique in that it is perhaps the only state sponsored programme catering to the survival and development needs of children under six and pregnant and lactating mothers. The impact of this has predictably fallen on the most vulnerable sections of our population, the women and children. The numbers of people in the unorganised sector have for a long time constituted the vast majority of workers, but since the last three decades, these numbers have increased exponentially, with women forming a significant section of the unorganised sector.

Objectives: The functioning of the ICDS centres along with the growing need for crèches and child care services for the vast majority of women and families who can no longer fulfill the child care needs.

Methodology: The final sample of 2880 households/mothers with children below the age of six was selected from among seven occupational categories, i.e. Agricultural labourers, home-based artisans and workers, brick kiln workers, construction workers, domestic workers, fishing communities and tea plantation workers. A small sample of 120 Anganwadi Workers was also part of the study.

Results: The findings revealed that respondents/mothers consisted of agricultural labourers, artisans and workers (15%), brick kiln workers (13.8%), construction workers, 6.8% domestic workers, 6.2% representing fishing and 6.18% tea plantation workers. Majority were Hindus (86.4%) followed by Muslims (12.2%) and rest Christians and others (1.4%). Out of a total child population of 4839 children in the 0-6 age group, majority were boys (52.8%)than girls (47.2%). Most respondents (77%) across states and occupational categories reported that their families were nuclear families with only some (23%)falling in joint families structure. The status of employment revealed that majority were paid casual labour (69.9%) followed by paid contract labours (14.9%) while another few (5.7%)were paid regular labour, and another (6%) who have self - owned businesses. However, there are significant variations at the state level, with Rajasthan (92%), Assam (53%) and UP (34%) respondents being involved in multiple occupations. One-third (34%) respondents had BPL cards and a fifth (21.8%) APL cards with a few (5.2%) AAY cards. More than one-third (37%) of respondents have no card at all. Majority of the mothers (61.3%) were the sole care giver for children in the age group 6 months – 3years. Findings further revealed that about (4.6%) children

were involved in child care in this age group and when children are helped by others, the percentage goes up to 7.5 percent. In the age group 3-6 years, the mother as the sole caregiver goes down even further (49.2%) and the role of others increases. There are a total of 484 children who are involved in care of their younger siblings. In the age group, 3-6 years, the proportion of children involved in child care increases to 13.7 percent in nuclear families and 7.8 percent in extended families. Across states and occupational categories only some (5.9%) of respondents were entitled to maternity leave. The overwhelming majority of respondents (87%) across states stated that they find it difficult to work and take care of the child. Most (97%) of the respondents stated that they would use a crèche if it was made available. The preference was for the crèche to remain open for at least 8 to 9 hours and/or to coincide with working hours of the mother. The overall states responded that majority (69.4%) preferred a full time crèche, while another (16%)preferred an AWC and rest (13.3%) would prefer child care at home.

Across the six states, more than half (55.9%) of respondents and/or their children used the AWC while rest (44.1%) of respondents do not use it. About 31percent cited the sole reason for the non-use of the AWC that it was far from their home. Only 53 percent of the respondents were even aware of the pre-school component of the programme while some (45%) were not even aware of it. However, most (93.6%) of the respondents suggested that improved pre-school education was necessary for the better performance of the AWCs. Across all the states, half (49.8%) had access to a functional PHC while the rest (50.2%) have no access. State wise variations shows that Assam fares best with four-fifth (80.3%) giving a positive response, Delhi had only partial (57.4%) respondents gave a positive response had a poor percentage of access with one-fourth (26%) and other 35.4 percent with more than two-fifth (42.6%) stating that they had no access. The majority of AWWs (91.5%) had received training. Most of the training was induction training (87%). A significant proportion (42.4%) stated that the working hours of the AWC was 4 hours while another third (33.1%) stated that it was 5 hours and another (15.3%) said that it was 6 hours.T he majority of the AWWs (52.5%) stated that they received a monthly honorarium between Rs 1500-2000,a smaller percentage (25.4%) received between Rs. 2000-2,500. A miniscule percentage (1.7%) received between Rs. 2500-3000. There was a small section (6.8%) who received between Rs. 3,500-4000.

Recommendations: ICDS centres should become anganwadi cum creches with additional personnel, appropriate infrastructure, and extension of hours. There should be at least one AWC-cum-Creche in every village and in the case of larger villages, more than one depending on the size of the village.

KEYWORDS: *1.ICDS 2.CHILD CARE SERVICES 3.CRECHES 4.CAREGIVERS 5.AWC 6.ANGANWADI-CUM-CRECHE 7.AWW 8.ANTYODAYA ANNA YOJANA 9.PHC 10.WOMEN WORKERS 11.WORKING MOTHERS*

9. Sweta R., et. al. (2018).
   A study on Infant and young child feeding practices among children aged less than 24 months in an Urban slum of Raichur : A cross-sectional study. *National Journal of Research in Community Medicine; Vol. 7(3): 157-162.*
   G21114

INTRODUCTION: According to the WHO, the breastfeeding initiation during the very first hour ensures the child development, growth and survival. Also, after six months of birth of a child, the complementary nutrition is as important as the breastfeeding in the form of solids and semi-solids.

OBJECTIVES: To assess the IYCF practices and their determinants among children aged less than 24 months in an urban slum of Raichur, Karnataka.

METHODOLOGY:A cross sectional study with randomly selected sample size of 178 children less than 24 months of age in the Raichur district of Karnataka, were studied.

RESULTS: The findings revealed that majority were females (67.4%) and remaining males (32.6%). Education level of the mothers of these children showed that two-thirds (68.5%) of the mothers were literate, out of which some (14.6%) had a graduate degree, while many (83.7%) were home makers. According to Modified B.G. Prasad classification, majority (65%) belonged to lower socio economic status. Partial (50.6%) respondents' belonged to joint families and about two-third (65.2%) of mothers said there were more than 5 members in their family. Majority of the mothers (69.1%) were aware of the correct duration of exclusively breast feeding as six months, while a few (5.6%) mothers had a misconception of four months. Responses given by the mothers when asked about the duration of continued breast feeding were until one year (19.1%), two years (38.8%) and as long as the child wants (36.5%). Majority (87.6%) of the mothers were aware about colostrum to be given to the infants. Colostrum was not given to fifth (19.7%) of the children at birth. Among the mothers who had not fed colostrum to their children at birth, two-third (65.7%) perceived it to be dirty and not healthy for their babies and the rest of them (34.3%) were not aware about colostrum. They practiced discarding the first milk as per the advice of the elders in the family. About a third (32%) of the mothers had given pre-lacteal feeds to the infants. Less than half (48.8%) of the infants less than six months were given exclusive breast feeding. About two-

third (68.5%) of the infants were initiated on breast feeding within one hour of birth, among these infants three-fourth (75.4%) were female and male(24.6%), this difference was found to be statistically significant ($p<0.01$). Among infants aged 6 to 8 months (n=27), only the female infants were introduced with semi solid foods at 6 to 8 months of age, this difference in the gender and introduction of semi-solid foods was found to be statistically significant ($p<0.05$). Some (12.4%) of infants and young children aged 6 to 24 months had received minimum acceptable diet. Type of family and number of occupants in the house were found to be significantly associated with the practice of exclusive breast feeding ($p<0.005$ and $p<0.01$ respectively). Mother's education and occupation was found to be statistically significant with minimum acceptable diet (MAD) of the children($P<0.05$).

CONCLUSION: Knowledge and support systems favouring appropriate infant feeding practices is lacking in the community resulting in poor indicators as inappropriate feeding practices and minimum adequate diet. Providing the correct information to the mothers on infant and young child feeding practices is required to root out the misconceptions around feeding practices including giving pre lacteal feed to the infants.

KEYWORDS: *1.NUTRITION 2.CHILD NUTRITION 3.CHILD FEEDING PRACTICES 4.PRE-LACTEAL FEEDS 5.MINIMUM ACCEPTABLE DIET (MAD) 6.INFANT FEEDING 7.IYCF 8.ANGANWADI CENTRE (AWC) 9.COLOSTRUM 10.EXCLUSIVE BREASTFEEDING 11.COMPLEMENTARY FEEDING*

10. Khalique, I.A.N, et. al. (2018).

Dietary Diversity and Stunting among Infants and Young Children: A Cross‐ sectional Study in Aligarh. *Indian Journal of Community Medicine, Vol.43 (1): 34-36.*

G-21115

Introduction: Child undernutrition is linked to immediate determinants such as IYCF practices, child health, nutritional status of women and adolescent girls, underlying determinants such as social status of women, water and sanitation, and status of nutrition relevant interventions. Although the prevalence of stunting has decreased in India from 48 percent to 39 percent during 2006–2014, the decline rate still lags behind other countries in the region.

Objectives: To find the prevalence of stunting among infants and young children aged6‐23 months and its association with dietary diversity.

Methodology: A total of 326 children aged 6‐23 months were included in the study.

Results: The findings revealed that half (50.6%) of children were males and161 (49.4%) were females. More than half, 179 (54.9%) of children belonged to urban areas and remaining 147 (45.1%)belonged to rural areas. Less than half of children, 147 (45.1%)were of birth order three and above followed by birth order one and two. Another three-fourth (74.8%) of mothers belonged to age group 21‐30 years followed by age group 31‐40 years. Just above half, 165 (50.6%) of mothers were illiterate and two‐third of them, 204 (62.6%) belonged to Muslim community. Among the 326 mothers included in the study, mostly (98.5%) were homemaker by occupation. Majority (81%) of mothers received antenatal care. Two hundred and twenty (67.5%) of mothers belonged to medium standard of living index. Adequate dietary diversity (those fulfilling the criteria of minimum dietary diversity, i.e., receive foods from 4 or more food groups) was observed in 42.6% (95% CI ‐ 37.4%, 48.1%)of the study participants. The mean Z‐score for height for age was 1.49 ± 1.24 and it followed normal distribution pattern (skewness ‐ 0.25). The prevalence of stunting in study participants was (45.7%)(95% CI ‐40.1%, 51.1%). About 33.7% (95% CI ‐28.8%,39%) of children were moderately stunted and 12% (95%CI ‐8.8%, 16%) of children severely stunted. The prevalence of stunting was significantly associated with dietary diversity (OR ‐0.17, 95% CI ‐0.10‐0.29), i.e., the children with adequate dietary diversity have (83%) lower odds of having stunting as compared to children with inadequate dietary diversity. Minimum meal frequency (minimum number of times or more feeds served during the previous day) was adjusted in multivariable analysis.

Conclusion: The outcome of the study showcased that dietary diversity is a significant precursor to stunting. Thus, provision of adequate dietary diversity may help in overcoming the burden of stunting among children.

KEYWORDS: *1.NUTRITION 2.CHILD NUTRITION 3.STUNTING 4.DIETARY DIVERSITY 5.SEVERLY STUNTING 6.MALNUTRITION 7.ADEQUATE DIETARY INTERVENTIONS 8.SAM 9.SEVERELY ACUTE MALNUTRITION.*

11. Basu, P. (2018).
Factors Influencing Exclusive Breastfeeding upto Six Months of Age in a Rural Community of North 24 Parganas, India. *Indian Journal of Nutrition, Vol.5 (1): 181.*
G21116

Introduction: Exclusive Breastfeeding (EBF) for infants upto 6 months of age is highly recommended by World Health Organization (WHO). The guidelines for the Infant and Young Child Feeding (IYCF) as formed by Government of India, also supports the WHO recommendations, while emphasizing on the promotion of exclusive breastfeeding upto six months.

Objectives: To estimate the prevalence of EBF practices among the infants up to six months.

Methodology: A community-based cross-sectional study conducted in the catchment area under the Banspool public health sub-centre of North 24 Parganas.

Results: In the study, 96 mothers participated. Among the respondents, majority (62.5%) mothers were Hindus and Muslims (37.5%). Some (10.4%) mothers were illiterate. Mean age of the mothers was 24.9 years (24.9 ± SD, 3.6). Out of the total, a majority of the mothers belonged to the age group below 24 years (47.9%) followed by age group belonged to 25-30 years (43.8%). Mothers below the BG Prasad Socio-Economic Scale (Less than INR 3046 per month) came out to 14.6 percent. The average income of the family per month was INR 5656.2 (5656.2 ± SD, 3294.3).In the study, 34 (35.4%) mothers had exclusively breastfed their children at least for six months. Mean duration of EBF with only breast milk was around 95 days (95 ± 11. 8, SD; Range: 7-189 days). Around 62 mothers (64.6%) did not complete EBF for the said duration. Among these 62 mothers, only a fifth (19.8%) mothers continued EBF for at least one month and thereafter they discontinued. Factors like age, religion, literacy, occupation, the income of the family, type of the family, sex of the child and number of children were explored in this study. Among 46 women of younger age group (Less than 24 years), majority (64.7%) provided EBF up to the age of six months. Whereas, among mothers of higher age group (greater than 25 years), the rate was 24 percent. Among Hindus, more than a third (36.6%) and among Muslims, a third (33.3%) mothers provided EBF. Mothers with lower literacy level (up to the primary) had lower EBF rate (25%) than mothers with higher literacy rates (38.8%). Compliance of EBF (14.3%) among the lower income group was found less as compared to the higher income group (39%). Most women from nuclear families practised EBF (47.1%) cases as compared to joint families (29%). Among 38 male children, majority (36.8%) children were

put on EBF whereas, out of 58 female children, a third (34.5%) were put on EBF. Mothers with a single child provided EBF in majority cases (70.6%) compared to few mothers (16.1%) with more than one child.

The study explored important barriers among 62 mothers (64.6%) who had not provided EBF to their children up to six months of their age. Among these barriers, most important was caesarean section delivery (37.1%). The next important barrier was the perception of having insufficient milk secretion (29%). Out of these 62 mothers, few mothers (12.9%) had ignorance about the importance of EBF. A few (4.8%) conceived during lactation. Using the Chi - square test, three factors were found significantly associated with the EBF. They were age of the mother ($p = 0.01$), type of the family ($p = 0.01$) and sex of the child ($p = 0.05$). The multivariate logistic regression analysis identified two important predictors of EBF. They were age group [$p = 0.004$; OR: 5.979 (1.785-20.031)] and the type of family [$p = 0.020$; OR: 0.251 (0.079-0.803)]

Conclusion: The findings concludes that the important factors that influence EBF were age, type of family (joint or nuclear) and gender of the child. While the important barriers of EBF were caesarean section delivery and perception of having insufficient milk secretion. Some of these factors can be incorporated into IYCF program of the health department to increase the rate of exclusive breastfeeding.

KEYWORDS: *1.NUTRITION 2.CHILD NUTRITION 3.EXCLUSIVE BREASTFEEDING 4.EBF 5.WORLD HEALTH ORGANIZATION (WHO) 6.IYCF 7.INFANT AND YOUNG CHILD FEEDING PRACTICES 8.CAESAREAN SECTION DELIVERY.*

B. Research Abstracts on Child Protection

CHILD LABOUR

12. V.V Giri National Labour Institute and UNICEF. (2016).
State of Child Workers in India- Mapping Trends.
G-21117

Introduction: The magnitude and incidence of child labour varies across different states, with some states reporting higher incidence while in others it is comparatively lower. Poverty, migration from one place to another and low family income may be some of the reasons for the existence of child labour. Though many laws and policies have been implemented in India to prevent and eliminate child labour, the problem still persists. Many proactive policies, legislation and schemes, like the National Child Labour Policy, National Policy for Children, National Policy on Education, Child Labour (Prohibition and Regulation) Act, Right of Children to Free and Compulsory Education Act, Juvenile Justice Act, Sarva Shiksha Abhiyaan (SSA), and National Child Labour Project have contributed immensely to increasing the school enrolment ratio, mainly at the level of elementary education.

Objectives: To analyse the situation of child labour in the country based on census data 2001 and 2011; to map the shift across states and within districts in a state, and also by residence and social groups to identify the hotspots of child labour; desk review and analysis of other secondary data sets (NSSO/AHS) on child labour at appropriate levels of aggregation; to identify districts that need concerted and special programming to address the issue of child labour; to derive appropriate recommendations for reduction/elimination of child labour.

Methodology: Secondary source of data was used from Census 2011 data for the national, state and district levels. It has also derived estimates from Census of India 2011 'Micro Sample Data -Population (Person Level)'.

Results: The data from Census 2001 and 2011 reveal a decline in the magnitude of child labour; with the decline being more visible in rural areas. According to Census 2011 estimates, agriculture has emerged as the largest category employing children. In rural areas, 40.1 percent children are engaged as agricultural labourers,31.5 percent as cultivators, 4.6 percent in the household industry and 23.8 percent in other areas of work. In urban areas, children are mostly concentrated in occupations other than agriculture and household industry, with 83.4 percent child labourers employed in this category. The other activities in which children are engaged in urban areas are 7.3

percent in household industry, 4.8 percent as agricultural labourers and 4.4 percent as cultivators. Kerala and Tamil Nadu have the highest proportion of literate child workers, with 82.2 percent and 81.3 percent respectively. The states that record more than 60 percent of literate child workers include Uttar Pradesh, Madhya Pradesh, Karnataka, West Bengal, Assam, Odisha, Punjab, Haryana, Chhattisgarh, and Telangana. The two top-ranking districts in terms of literate children as main workers are in Gujarat, namely, Surat and Ahmedabad, with 78.2 percent and 78.1 percent literate children respectively. Further, North 24 Parganas in West Bengal (76.0 percent), Bangalore in Karnataka (75.6 percent), Pune (75.2 percent), Nashik (73.9 percent), and Thane (71.3 percent) in Maharashtra also stand out as districts with larger proportions of literate child workers. While Patna in Bihar accounts for 55.1 percent of literate child main workers, Bareilly in Uttar Pradesh accounts for54 percent of child workers and Kurnool in Andhra Pradesh accounts for 49.4 percent of literate child workers. Seven states of the country, namely, Uttar Pradesh, Bihar, Rajasthan, Maharashtra, West Bengal, and Gujarat, with 62.8 percent of child population, account for 64.7 percent of total child workers.32 hotspots in the country that reported more than 8.9 percent child workers had been identified in 2011.Difference in main and marginal workers was more evident for girls, with 1.5 times more female children as compared to male children engaged as marginal workers.

CONCLUSION: The children identified in the raids should immediately be restored to their families or admitted either to special schools or residential schools as the last resort. A raise in the minimum wages in states where the rates are low would result in controlling the processes of distress migration and debt bondage to some extent, preventing child labour and enabling children to continue with schooling in their native homes.

KEYWORDS: *1.CHILD LABOUR 2.BONDED LABOURS 3.NSSO 4.CHILD WORKERS 5.GIRL CHILD LABOUR 6.GENDER PARITY 7.CASUAL WORKERS 8.MAIN WORKERS 9.MARGINAL WORKERS 10.RESIDENTIAL SCHOOLS 11.CHILD TRAFFICKING.*

13. Verma, C. et al.(2018).
Anti-HBs Titers Following Pentavalent Immunization (DTwP-HBV-Hib) in Term Normal Weight *vs* Low Birth weight Infants. *Indian Pediatrics, Vol. 55 (5): 395-399.*
G21118

INTRODUCTION: The Universal immunization against hepatitis B in infancy starting at birth has resulted in marked reduction in HBV related chronic hepatitis, liver cirrhosis, and hepatocellularcarcinoma. An anti-HBs concentration of ≥10 mIU/mL measured 1–3 months after administration of the last dose of the primary vaccination is considered a reliable marker of protection against HBV infection. Term low birth weight (LBW) infants weighing1800 to 2499 g; with several of them being small for gestational age, may lie in the grey zone of the immunity where they may be vulnerable despite being born chronologically mature.

OBJECTIVES: To compare anti-HBs titers between term low birth weight (1800-2499 g) infants and normal birth weight infants, 6weeks after last dose of primary immunization with pentavalentvaccine, and to study adverse events following immunization(AEFI) with pentavalent vaccine.

METHODOLOGY:A cohort study, with 265 low birth weight (1800-2499 g) and 265 normal birth weight (2500-4000 g) infants.

RESULTS: Majority 443 (93.1%) of infants completed follow-up(LBW 94.5%; normal birth weight 91.6%). The median (IQR) cord blood anti HBs levels of 443infants was 0 (0,0). Minimum level of anti HBs titers observed after 6 weeks of primary immunization with pentavalent vaccine was 40 mIU/mL in both the groups. Maximum anti-HBs titers attained were 280 mIU/mL and282 mIU/mL, respectively in LBW and normal birth weight groups. Mean (SD) anti-HBs titers were 206.76(60) mIU/mL and 214 (55.46) mIU/mL, respectively forLBW and normal birthweight infants (P=0.17). Anti-HBsGMTs were 194.76 mIU/mL and 204.2 mIU/mL in LBWand normal birth weight infants, respectively and the difference was not significant (P=0.17).

CONCLUSION: It was derived from the study that three primary doses of pentavalentvaccine administered along with zero dose of Hepatitis B vaccine at birth achieved comparable sero protective antiHBs GMT in LBW and normal birth weight infants and that the immunization with pentavalent vaccine appears to be safe.

KEYWORDS: *1.HEALTH 2.CHILD HEALTH 3.VACCINE 4.HBV 5.HEPATITIS B VACCINE 6.LOW BIRTH WEIGHT 7.LBW 8.ANTIBODIES 9.ANTI HBS 10.NORMAL WEIGHT 11.PENTAVALENT IMMUNIZATION*

C. Women and Gender Issues

HEALTH

14. Chauhan, S. et.al. (2018).
Capacity Assessment of District Health System in India on Services for Prevention and Management of Infertility. *Indian Journal of Community Medicine, Vol.43 (1): 19-23.*
G-21119

Introduction: The cause of infertility may be difficult to determine but may include inadequate levels of certain hormones in both men and women, and trouble with ovulation in women. Infertility is now becoming a growing public health concern in the world including India. Consequently, there is limited focus on infertility services in the ongoing Reproductive, Maternal, Neonatal, and Child and Adolescent Health Programme (RMNCH + A).

Objectives: To assess the availability and practices on prevention and management services for infertility in the district health system.

Methodology: A cross- sectional survey of selected health facilities and the staff from 12 district hospitals (DHs), 24 community health centers (CHCs), 48 primary health centers (PHCs), and 48 sub-centers was conducted using qualitative and quantitative methods.

Results: Infertility was reported to be a problem in the study area by majority (88%) of gynecologists and MOs (67%). Both gynecologists and MOs reported that least (4.7%)among 750 patients and (5.6%)of 250 patients visited the outpatient department for infertility in 1 month. The ANMs and ASHAs indicated that least (2%‑3%) of the patients were seen with the history of inability to conceive. The availability of facility for management and prevention of infertility indicated that the majority (92%) of the sanctioned posts of gynecologists and MOs in the DHs and CHCs were filled. However, partial of the surgeon's posts (50%) of CHCs and radiologists (50%) of DHs were filled. The majority of LTs posts at DHs (84%)and CHCs (83%) were filled. The staff strength at PHCs was in a good position with MOs (81%), of ANMs (88%), LTs (89%), and pharmacists posts (86%) were filled up. The majority of the ANMs (97%) and ASHAs (93%) posts were also filled up. Color- coded STI kits were available at three-fourth of DHs (75%), CHCs (42%), and PHCs (33%). Drugs for the treatment of TB were available at majority of DHs (92%), CHCs (83%), and PHCs (75%). Communication material on infertility was not available at any of the facilities. Most of the MOs (70%) reported taking history of infertile couple; however, many important aspects were missed in the history. Nearly half of the MOs (51%) did not take history regarding consummation of marriage and

frequency of sexual intercourse (48%). Fifty- one percent of MOs did not ask the history of abortion or MTP and RTI/STI (48%). Forty percent of the MOs counseled their patients, but only a fifth (21%) of them reported to investigate for diagnosing the cause of infertility. Only 10 percent of them claimed to provide the treatment for infertility while the majority (73%) of them referred the patients to specialists in both public (60%) and private sector (12%).Services for safe delivery were available at all the DHs, CHCs (88%), and PHCs. While three-fourth (75%) of DHs, CHCs (42%), and PHCs (8%) provided services for first trimester abortions by medical method, only partial (50%) of DHs and CHCs (29%), respectively, provided services for the second trimester abortions.

Conclusion: The district health infrastructure in India has a potential to provide basic services for infertility. With some policy decisions, resource inputs and capacity strengthening, it is possible to provide basic as well as advanced services for infertility in the district health system.

KEYWORDS: *1.HEALTH 2.WOMEN HEALTH 3.INFERTILITY 4.GYNECOLOGISTS 5.MOS 6.DISTRICT HOSPITALS (DHS) 7.COMMUNITY HEALTH CENTERS (CHCS), 8.PRIMARY HEALTH CENTERS (PHCS) 9.STI KITS 10.ASHAS 11.ANMS 12.LB TECHNICIANS 13.SAFE DELIVERIES*

15. Chetty, S. and Ravishankar, A.C. (2018).
Retrospective Analysis of Vitamin D Levels in Office Going People in South India. *Indian Journal of Nutrition; Vol.5 (1): 1-5.*
G-21120

Introduction: One of the fat-soluble vitamins, Vitamin D regulates the absorption of calcium from the small intestine. It coordinates with parathyroid hormone for bone mineralization and maintains serum calcium levels in the blood stream. The role of Vitamin D in inflammation, immune modulation and its effect on cytokine levels is to be defined in some epidemiological studies.

Objectives: To evaluate the status of the Vitamin D in office going people who get very little opportunity to expose to mid-day sun light.

Methodology: A retrospective data analysis Vitamin D data. Vitamin D screening program where the employees of the corporate offices and manufacturing plant in Bangalore had participated. A total of 2477 subjects' vitamin D data were evaluated for analysis, with 2154 men and 323 women.

Results: Majority of the employees were aged between 20 and 30 years of age (52%), followed by subjects aged between 30 and 40 years (36%), and between 40 and 50 years. Out of 323 females, 268 (83%) were deficient and 43 women were insufficient and only (3.7%) were sufficient. A higher percentage of women (83%) were deficient in Vitamin D levels compared to men (75.1%). However, more number of men (23.2%) were insufficient for Vitamin D than the women (13.3%). In the age group of 20 to 30 years, 1036 (72%) were deficient and 376 (26.2%) were insufficient and only 19 (1.5%) were having sufficient vitamin D levels. In the age group of 30 to 40 years, 651 (80.7%) were deficient and 127 (15.7%) were insufficient and the remaining 28 (3.5%) were sufficient. In the age group of 40 to 50 years, only 7 employees were having sufficient levels and 164 (79.2%) and 36 (17%) were deficient and insufficient respectively. In the population, more than 50 years' age only 1 subject had sufficient levels of Vitamin D levels and the remaining (89.6%) were deficient and others were insufficient.

Conclusion: The study implicates the importance of exposure to sunlight in having the sufficient levels of Vitamin D. Office going people have minimal time to expose themselves to sunlight and hence are more prone for sunshine vitamin deficiency. Need of the hour is to increase the awareness about Vitamin D deficiency and importance of periodic Vitamin D screening.

KEYWORDS: 1.NUTRITION 2.WOMEN NUTRITION 3.VITAMIN D 4.VITAMIN D SCREENING 5.SUNLIGHT EXPOSURE 6.SUFFICIENT LEVELS 7.VITAMIN D DEFICIENCY 8.MID-DAY SUN LIGHT.

16. Varalakshmi R.S. (2018).

Emerging Trend of Dietary Patterns as a Risk Factor of Cardiovascular Disease in Urban Chennai Women. *Indian Journal of Nutrition, Vol. 5(1): 182.*
G-21121

Introduction: Within the Indian sub-continent, the prevalence of the heart disease has been predicted as it could be seen from the results of the global burden of diseases study which projected that by 2020 there would be a surmounting increase (111%) in cardiovascular deaths in India. The studies also reflects that the women are far more affected by the cardiovascular disease in India.

Objectives: To study the nutrient intake and anthropometric measures of two different ethnic community women.

Methodology: A sample of 165 women in the age-group of 30-45 years on their dietary preferences and linguistic groups (South Indian (SI) and Western Indian (WI) respectively) were selected using purposive random sampling.

Results: The findings revealed that almost eighty five percent of the subjects fall under the overweight category. On the basis of the scores it was inferred that the variety in the diet enhances the overall consumption of the food in the middle income groups and it seems to have a lower variety in their scores. Further, it could be corroborated with the findings based on the first anthropometric component that were carrying higher anthropometric cut points reflected due to lower dietary diversity. Mean BMI was found to be higher among the high income group subjects of SI(24.2$\pm$1.90) and WI(24.6$\pm$2.33), while the other income group subjects were also in the overweight category according to the Asia Pacific Guidelines for South Asians normal weight [BMI = 18.5-22.9 kg/ m2], overweight [BMI = 23-24.9 kg/m2] and obese (BMI > 25 kg/m m2). Mean WHR was also above the normal value of 0.80 in the high income groups of both the SI (0.81$\pm$0.13)and WI women (0.81$\pm$0.01).The average protein intake was found to be higher among the non-vegetarian population of South Indian women with 98.83 grams followed by the middle income group of West Indian women with 81.1grams. Evidently, the variety of non-vegetarian foods contributed to high protein content in the diet of low income group south Indian women. Carbohydrate intake also showed a similar trend with the high intake in the diets of West Indian women (353.47 grams) and South Indian women (300.96 grams). No distinct patterns of fat intake emerged between the higher and middle income groups of the West Indian women whereas there was a slight higher intake of fat with the middle income group of South Indian women compared to the higher income group of South Indian women. Energy intake of the subjects revealed their higher uptake because of increased intake of

macronutrients. The eigenvalues associated with the components with the first eigenvalue as 2.36, second as 1.16 and the third as 0.85. The first component (47.1%) variation in anthropometric measures was much lesser than the second (70.4%) and third (87.6%) cumulative variation. The components 2 and 3 respectively. The first component has the positive loadings of all the variables [Carbohydrate share (P> [z] = 0.011), Fat share (P>[z] = 0.004). It can be interpreted as the overall generalized fat accumulation sites extremely unique for Indians and it strongly correlates strongly with increasing cardiovascular risk factors. The second principal component has positive loadings for other anthropometric measures excluding the waist and hip circumferences which are represented by negative loadings. Thus, the second principle distinguishes the android and the gynoid patterns of fat distribution of the subjects. The third principal component gives negative loadings for waist circumference and waist circumference to height ratio and positive to all others as the study population is shorter in stature and it has been found that in Japanese population. Further the results indicate that the increase of waist circumference and waist to height ratio as indicated by the third anthropometry component are increased due to increased carbohydrate and fat intake as a significant relationship at one percent level is been exhibited.

Conclusion: Food variety scores indicated that dietary diversification is not found in all the ethnic groups. Anthropometric components categorized into three principle indices showed a vivid significance at 1 percent and five percent level of carbohydrate and fat share of the calories towards the different anthropometric parameters. Thus, from the above results it can be concluded that higher calorie intake, increased carbohydrate and fat intake showed an inclination towards higher anthropometric indices of Body mass index, Waist to Hip ratio, Waist to Hip Ratio which poses risk factors towards the development of cardiovascular diseases at a younger age

Keywords: *1.NUTRITION 2.WOMEN NUTRITION 3.CARDIOVASCULAR DISEASES 4.CVD 5.CARDIOVASCULAR DEATHS 6.GLOBAL BURDEN OF DISEASES 7.CONSUMPTION FREQUENCY 8.DIETARY PREFERENCE 9.BODY MASS INDEX (BMI) 10.WAIST CIRCUMFERENCE (WC) 11.WAIST TO HIP RATIO (WTHR) 12.DIETARY DIVERSITY 13.WAIST CIRCUMFERENCE (WC) 14.HIP CIRCUMFERENCE (HC) 15.WAIST TO HEIGHT RATIO 16.FOOD VARIETY SCORE 17.PROTEIN INTAKE 18.FOOD FREQUENCY QUESTIONNAIRE (FFQ)*

17. India, Min. of Women and Child Development and TISS. (2016).
Economic Empowerment of Women: Promoting Skills Development in Slum Areas. 115p.
G-21123

Introduction: The economic independence of a woman is fundamental resource that could not just add upto any Gross Domestic Product (GDP) of a country but shall also install a self-confidence in the woman, to convert her position from being a decision – listener to decision –maker in her house, community and society at large. Thus, women's economic empowerment is indispensable to poverty reduction and food security, lasting, inclusive and sustainable economic growth, and the achievement of gender equality. Therefore, skill building can be viewed as an instrument to empower the individual and improve his/her social acceptance or value and enriching the economic empowerment of women.

Objectives: To conduct a stocktaking exercise of current studies and skill development/training schemes, addressing young women in slum areas; to assess and evaluate current policies and schemes; to map the needs of skill development/training for women in the unorganised sector; to identify the gaps in knowledge and shortfalls in implementation and suggest remedies or ways to empower women financially and socially.

Methodology: A primary investigation of 1004 women (aged between 15 and 35 years), who had received skills development training in ten cities of India, namely, Ahmedabad, Bhubaneswar, Chennai, Delhi Metro Region, Guwahati, Hyderabad, Kolkata, Jaipur, Lucknow and Mumbai.

Results: It was found that unoccupied women before training were more likely to have an idea to get access to vocational education would help them climb up socially and economically. This is evident from the fact that of the currently employed respondents, who believe that greater access to vocational education is profitable to them; three-fourth (76%) had not worked before the training, whereas rest (24%) had worked earlier and believed that training would bring improvement to their lives. Nearly 7.9 percent of the women were not interested in participating in skills training in the future, as they did not find it very useful. Nearly 17 percent of the women said that having job security would help them to be able to plan their expenditure better without the anxiety of losing their jobs or getting unequal pay (as compared to their male counterparts), and seek a better living for themselves and their family. Another 12 percent of the women felt that having access to pro poor schemes helps better than any other factor as they felt that having social protection through schemes cushioned theirs as well as

their family's interests. Only 11 percent of the women thought that the most important thing they required was access to vocational education to seek their true potential and be empowered.Another11 percent of the women felt that having more family support would help them to improve their current situation. This reflects their state of social confinement and inability to implement their own decisions to seek a job or education. Further, 10 percent of the women felt that access to higher education or education in any form would open vistas or opportunities and increase their potential for self-employment through which they could access pro poor schemes, disseminate information, become leaders for other women in the community, have a secure job and improved income.

Conclusion: The women were facing difficulty in getting family support, lack of financial resource continued to create hindrances to participation in skills training. Soft skills training to enhance service delivery and employability in parallel to vocation based training is required.

KEYWORDS: *1.SOCIAL WELFARE 2.ECONOMIC EMPOWERMENT 3.WOMEN EMPOWERMENT 4.WOMEN PARTICIPATION 5.DECISION-MAKING 6.VTPS 7.VOCATIONAL TRAINING 8.SOFT SKILL TRAINING 9.SELF- EMPLOYMENT TRAINING 10.JOB SECURITY.*

18. Sharma, M., Chandra, A., and Chandola, A. (2015).
A Situational Analysis of Women Street Vendors: Lucknow : NIPCCD.
G21025

Introduction: Street Vending remains one of the most fruitful occupation of the unorganized sector in India. Street vending is one of the few readily accessible avenues of employment for women to earn a living. The low cost of entry and sustaining into hawking and vending as well as a flexible schedule which allows them to juggle with their family responsibilities, make street vending an attractive option for poor women but for many poor women, it is the only option.

Objectives: To understand the socio-economic background of women street vendors; to study the access and utilization of welfare schemes by street vending women; to assess the situation of women vendors in terms of official stipulations & licensing, working conditions etc; to suggest ways to improve the situation of women vendors.

Methodology: A sample of 200 Women Street Vendors and were randomly selected from the capital cities of Bihar, Jharkhand, Uttar Pradesh and Uttarakhand, respectively. The Vending Authorities falling in each Municipal Authority were also interviewed.

Results: Majority of the women street vendors (69%) were illiterate as compared to the women street vendors (23%)being literate. The findings revealed that the Hindu religion (84.5%) were outnumbered than others. It was found that per day income varied from less than INR 50 to 250 in a day. Majority of the respondents (43%) earned between INR 101-150 per day, followed by INR 51-100 (22.5%) while least earned in the range of INR 201-250 (1%). About half of the respondents were staying in rented houses (51.5%), and were in this occupation from last 10-15 years (27.5%). More than a fifth (22%) were compelled to enter into vending, as they had no other option, and another fifth (20%) took vending due to the ease in equally managing their household responsibilities. A third (34%) of the respondents had migrated from rural to urban areas. Majority (81.5%) of the respondents were solely relying on vending, while a smaller section (18.5%) were engaged into other occupations as well. Majority (57.5%) of the respondents had monthly family income in the range of INR 3000-4500 per month, while a fifth (21%) had family income of more than INR 4500 in a month. Most of them (82.3%) had children of 6 years and above. However, some (5.1%) respondents had children 6months – 3 years who need constant support. Majority (86.9%) reported that they were not taking

any family help for childcare at home, while they were away for vending. Their health status disclosed that majority (63%) of the respondents were suffering from many health problems as Back Pain (47.6%), Stress (20.6%), Blood Pressure (15.9%), Diarrohea (13.5%), Gastric Problem(4.8%), UTI (3.2%), etc. Majority (93.5%) of respondents were using health facilities as and when required. The findings further revealed that a sizeable proportion (62.5%) of respondents were not resorted to any substance abuse, while the rest (37.5%) were addicted to different forms of substance abuse as tobacco (14.5%), gutka (12%), paan/supari (6%) and bidi (5%). About two-fifth (38.5%) were engaged in mobile vending, and most (85.5%) were vending throughout the week. Majority (64.5%) of the respondents were selling perishable goods. The findings further stated that majority (58%) did not had any vending license nor were aware about the government reforms. The rest (42%) possessed a vending license, an integral part for running the occupation. Some (12.9%) revealed that they had to pay bribe for not having a vending license. Three-fourth (74.5%) were compelled to use open spaces as there were no toilet facility in their vending markets. Only a few (10%) were using public toilets (paid) located nearby their vending places. Majority (72.5%) of respondents were having no place for dumping the waste generated by their vending occupation. More than a fifth (22.5%) had no one to look after their children. Majority (78%) of them were unaware about any local trade union, Town Vending Committee (TVC), or any NGO in this field. A considerable portion (56.5%) of respondents had taken loan for starting vending. Among these, two-fifth (45.1%) were able to calculate loan amount, while others (54.9%) were dependent on their families or money lenders for repaying their loans. One-fourth (26.5%) affirmed that they had faced some or the other forms of harassment by Municipal Authority, police or local goons.

Conclusion: Most of the women vendors were skilled in any form of vocational training but were unable to make full use of their vocational skills. While there were some women vendors who desired to be vocationally trained, along with vending. Therefore it is recommended to make provisions in existing laws to enable the women vendors to be included in various trades of vocational training programmes being organized in various schemes as STEP, SABLA (in ICDS) etc. under Ministry of Women and Child Development.

KEYWORDS:*1.WOMEN LABOUR 2.VENDOR 3.STREET VENDOR4.WOMEN VENDORS 5.PROBLEM OF WORKING WOMEN6.WOMEN VENDORS CHILDREN 7.CHILD CARESUPPORT 8.HEALTH PROBLEMS 9.SOCIO-ECONOMIC PROFILE 10.LOAN FOR VENDING 11.FEMALE HEADEDHOUSEHOLD 12.SAFETY AND PROTECTION 13.SITUATION FOR VENDING 14.INTERVIEWSCHEDULE.*

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Women's Safety from Sexual Assault at Public Spaces in National Capital Region. 127p.
G21122

INTRODUCTION: Violence against women takes many forms. Sexual harassment at the helm of society is one such untouched area, where despite of being a part of progressive society, we have to find a way out to deal with it. Sexual harassment or another such 'Street Harassment' continues to kill, torture, and harm – physically, psychologically, sexually and economically by denying women and girls' equality, security, dignity, self-worth, and their right to enjoy fundamental freedoms.

OBJECTIVES: To identify most rampant causes of sexual harassment perceived by women; to determine the most important factors that enhances common women's safety in public places; to discern women's responses in cases of violence against them; to find feasibilities of women's access to Police and other governing agencies; to find the level of awareness regarding laws concerning rapes and its punishments among women and men; to enlist gender sensitive activities in communities, particularly low income group persons, for improving gender sensitive relationship.

METHODOLOGY: Out of the total population of Delhi, Gurgaon and Noida 4288 women belonging to different categories, 592 and 320 stake holders belonging to both genders were covered.

RESULTS: The findings revealed that while majority women (82%) and men (78%) as well as stakeholders (83%) opined that women do not feel safe while travelling in NCR. The total score found out that an overwhelming 81 percent of respondents said that women feel unsafe while travelling in NCR, while some (11%) felt that women feel safe while travelling in NCR and still a few (8%) had nothing to comment on this matter. The total response shows that a very high level of awareness has been shown by the respondents that women using public space are suffering from sexual harassment. Majority (87%) of total sample agrees that girls suffer from verbal abuse, 88 percent believe that they suffer from physical abuse and 94 percent opined that they were being stared at. Similarly in terms of the three locations also, there does seem to be high awareness regarding existence of the three kinds of abuse. Majority (85%) of the respondents from Delhi, Gurgaon (98%) and Noida (95%) believe that they suffered from verbal abuse, Delhi (87%), Gurgaon (91%), Noida (97%) think that women in NCR suffer from physical abuse in public places and Delhi (94%), from Gurgaon (97%), from Noida (85%) believed that women in NCR are being stared at. Another half (47%) respondents witnessed each of the fifteen causes

as contributing in facilitating street sexual assault. The punishment not being severe to be highest ranked cause (86%) followed closely by availability of pornographic material on mobile (84%), and also on easy access to various social media platforms as facebook, etc. and net surfing (83%). Influence of media/TV/Cinema (81%), prevailing lawlessness in the society (73%), Corruption in law enforcing authorities, (69%), Culture of Late Night Parties (69%), unsympathetic Police (68%), inadequate infrastructural facilities (65%), Lax and expensive judicial system (65%), physical inability of women to defend themselves (63%). 55% of sample believes that Lack of commitment from Political/Religious Leaders. Revealing Dresses of women by 50 percent, free and informal behaviour of women by49 percent and Sexual aggression in men by 47 percent of the sample to be the reason behind sexual harassment. Culture of Late Night Parties has also been seen as very important as perceived by 94 percent Noida respondents. Inadequate infrastructural facilities has also been seen by 73 percent of total respondents as being a factor in rising street sexual harassment. To have a surveillance system at place, the respondents opined that the legal punishments should be made harsher (94%), judicial disposals should be quicker (92%), Mahila police shall get greater role in patrolling (91%), third dimension was about strengthening the women herself, namely women should be encouraged to carry pepper spray/ safety pins etc. (94%) were the response of the total sample. According to an overwhelming 92 percent women get help from family members in lodging complain, 72%from Friend/colleague,39%from public at spot. Helpline applications (35%), NGO and Police(39%) were perceived to be helpful in lodging complain by of the respondents respectively.

CONCLUSION: Awareness about the women's low safety, sexual harassment as well as the laws, Acts is high among the community. However, the harassment is continuing. Findings have suggested that the system of reporting and punishments are not in place. Trivialization of sexual harassment in public - space is high among the general community, victims, and even law enforcing machinery. Impact of the laws in protecting women from street Violence is negligible. Certain areas in NCR are very susceptible to sexual harassment at public places.

KEYWORDS: *1.WOMEN WELFARE 2.WOMEN SAFETY 3.STREET ASSAULT 4.SEXUAL ASSAULT 5.SEXUAL HARASSMENT 6.MAHILA POLICE 7.LAW AND ORDER 8.MIGRANT WOMEN*

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Domestic Violence Against Married Women in RHTC, Kasturwadi: A Community Based Cross Sectional Study. *National Journal of Research in Community Medicine; Vol. 7(3): 186-189.*
G21124

Introduction: With WHO declaring domestic violence as 'public health epidemic', it takes a central stage in the women protection rights. As violence not only causes physical injury, it also undermines the social, economic, psychological, spiritual and emotional wellbeing of the victim. And domestic violence is a major contributor to the ill health of women.

Objectives:1. To study the prevalence of domestic violence by intimate partner against married women. 2. To study the socio-demographic factors which affect the victimization of woman for domestic violence.3. To study the reaction of women to domestic violence.

Methodology: A cross sectional study in Kasturwadi village under Rural Health Training Centre, JIIU's Indian Institute of Medical Science and Research, Badnapur on all married woman residing in Kasturwadi village.

Results: The findings revealed that majority (46%) of the participants were in the age group of less than 30 years, illiterate (38%), doing unskilled occupation (28%) and Muslim (70%) by religion. Most (58%) of the participants got married before the age of 18 years ($P<0.05$). Most of them studied upto high school (39%), and were farmers (69%). Alcohol consumption was seen in 52(26.9%). Domestic violence was observed in 77(39.9%) of them. Various types of violence faced by the women were physical (21.76%), verbal (21.76%) and sexual (1.55%). Slapping (20.2%) was the most common form of physical violence. The most common type of injury was bruising (20.7%) followed by contusion (18.1%) then cuts(1%). Domestic violence was more common among women less than 30 years (43%), illiterate (53%), Hindu (48%), employed in semiskilled and skilled occupation(60%), married early (44%), duration of married life < 5years (58%), illiterate spouse(52%), unemployed spouse and spouse consuming alcohol (84%).

Conclusion: The prevalence of domestic violence was high in the rural area of Maharashtra. It was associated with less education, early marriages and alcohol consumption by the spouse. It is recommended that the literacy level in the society especially in the rural areas should be improved, legislations should be strictly enforced to avoid early marriages and women should be informed about the various help line numbers and laws to protect themselves from domestic violence.

KEYWORDS: *1.WOMEN WELFARE 2.DOMESTIC VIOLENCE 3.PHYSICAL VIOLENCE 4.SEMISKILLED AND SKILLED OCCUPATION 5.DECISION MAKING 6.ILLITERATE SPOUSE 7. ALCOHOL CONSUMPTION 8.EARLY MARRIAGE 9.PUBLIC HEALTH EPIDEMIC.*

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