साहित्य समालोचन
प्रकरण २५

बाळकांचे संगोपन ही एक कहत्रपत जिकांती पण तितकीच आमंत्राय वाच म्हणावी लागेल. बाळकांची भावी काळावधीत सुदृढता व निरामय आरोग्य बत्त्याचून प्रभावात बाळकवस्थेतमध्ये बाळक किंतुपत चरमस्ती अपघाताना बढती न पडणे ह्याचर अवरुन्नून आहे. ह्या अनुसारे बाळके आणि चरमस्ती अपघात हा कुलावस्तीत मात्राचून घडून या चरमस्ती खत्त्वेच विषय दर्शवत. या विषयाची महत्त्वी आणि उपरुक्तात लक्षेत चेंढू ह्या विषयाचे भूमिकाच्या बरोबर संशोधन ज्ञात्याचे संशोधित केला आहे. भारतामध्ये आणि भारताची बाहेरही हे संशोधन ज्ञात्याचे निष्ठावाचे परंतु ह्या विषयाची एका गोष्टीचा आर्जी होतो. बाळकांच्या संघात आणि ती म्हणजे जवळपास सर्वसाधारण उपलब्धींची बघेत असल्यामुळे संदर्भ इंग्रजींचे प्रस्तुत करण्यात आलेले आहे. याचे महत्त्वचे कारण म्हणजे इंग्रजी प्रस्तुत विषयाचे प्रश्नात्मक दृष्ट्या उल्लेख्याने संशोधन झाले असल्यामुळे संदर्भ इंग्रजींच्या भाषेत उपलब्ध आहे. ह्या प्रकरणात निर्णितीच्या संशोधनानंद्यात निर्देशनासारख्या आहे. गौरवेच वाळी दिले आहेत. प्रकरणच्या सोटीकरण व योग्य प्रस्तुतीकरणाची प्रकरण खालील नेरिनिरावध विभागात विभागाच्यात आलेले आहे.
DIVISIONS

2.1 ICDS Programme:
2.2 Causes of Accidents:
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2.3 Accidents In Infancy and Childhood:
2.4 Knowledge and Precautionary Measures and Remedies:
2.5 Causes of Deaths:
2.6 Age and time of Accidents:
2.7 Relationship of Accidents with Economy:
2.8 Childhood Injuries in USA
2.1 ICDS Programme:

1) Joshi, Uma (1994) in her article “Rural Women in National Development” published in Kurukshetra has very rightly stated that ICDS programme is world’s largest programme functioning for the welfare of women and children.

2.2 Causes of Accidents:

2) Arun Kumar and Mannohan (1986) “Poisoning in Childhood” observed that-
   i) Kerosene poisoning treatment-
   1. Oxygen therapy
   2. Antibiotics
   3. Gastric lavage is contraindicated

   ii) Elsie Philip (pp. 181-188) stated the following treatment for Snake bite and scorpion sting
   1. Anti venom- Dose anti venom is given diluted in 3 volume of isotonic saline or 5% glucose IV
   2. Adrenaline-0.01 ml/kg of 1:1000 epinephrine before antivenom therapy
   3. Analgesic and sedative- Aspirin and Diazepam
   4. Shock must be combated adequately by IV fluids.

   iii) They further proposed some emergency treatments for Scorpion sting as-
   1. Antivenom –Specific scorpion antivenom
   2. Lytic cocktail- It contains 100mg of pethidine, 50mg chlorpromazine and 50mg of promethazine in 50ml of 5% dextrose. The dose is 0.3ml/kg/dose iv repeated every 20 min and when necessary.
   3. Convulsions- Phenobarbitone

3) Gupta, P, Singh, R.P.et al, (1992) “Kerosene Oil Poisoning – A Childhood Menace” observed that-

   i) Kerosene oil ingestion constituted 46.4% of admissions due to accidental poisoning in childhood. Most of the children consumed kerosene oil from soft drink bottles or plastic jars. Affected children were between the ages of 3 months and 8 years with maximum number of case (77.1%) presenting between the age of 1-3 years. 45 children were boys and 25 were girls; 68.6% were malnourished (weight less than 80% of 50th centile of Harvard standards). 19 cases (27.2%) were severely malnourished and weighed less than 60% of their expected weight.
ii) Accidental kerosene oil poisoning continues to be a childhood menace in developing world. It constituted 0.1% of total pediatric emergencies and 46.4% of all accidental childhood poisoning during the study period. The reported incidence of kerosene oil ingestion varies from 33-60% amongst poisoning in childhood.

iii) In this study, 71.4% of cases were symptomatic. Santhanakrishnan et al. reported that 44% of children in their study developed symptoms after ingesting kerosene oil as against 71.4% reported by Brunner et al.

iv) The American sub-committee report observed that ingestion of more than 1 ml of kerosene oil was significantly related to pulmonary complications.

v) Mortality due to kerosene oil poisoning has remained unchanged over the last quarter of century. The observed mortality in this study of 4.3% falls well within the range of 2-10% noted by various authors. The complications and deaths occurred within 48 hours of admission, which is the crucial period for these children.

vi) The dangers of kerosene oil and measures necessary to prevent accidental ingestion by children should be actively and repeatedly stressed. Parents and older children should be warned about proper storage and usage of this necessary evil.

4) Sarkar, A.K, Sarkar,M and Biswas,S. (1994) in their paper with titled as “An Unusual Case of Kerosene Oil Poisoning” indicated-

i) Accidental kerosene oil poisoning continues to remain a serious pediatric problem in India and other developing countries

ii) Kerosene oil poisoning can also occur as result of inhalation of the vapours.

5) Khadgawat,R, Garg,P,et al.(1994) in their paper “Accidental poisoning” reported that out of 20,011 patients admitted from June 1987 to May 1993, 2-3 cases (1.1%) were of accidental Poisoning and male -female ratio of 1.6:1.

Age group 0-5 (81.2%),5-10 (16.1%).
1. Kerosen Poisoning- (48.8%)
2. Snake Bite- (20 cases)
3. Drugs- (26 cases)-Phenothiazines- (42.3%), Codeine (19.2%) and Iron Tablets (11.5%).

6) Singh Surjit, Singh Sumit, et al. (1995) in their article entitled “Changing Pattern of Childhood Poisoning (1970 to 1989): Experience of a Large North Indian Hospital” reported that—

i) The epidemiology of acute poisoning in children aged 0-15 years hospitalized between 1970-1989 was retrospectively investigated. Two hundred and seventeen children were admitted during this period with 134 in 1980-1989 vs. 83 in 1970-1979. Two distinct pattern were observed: accidental poisoning in under 11’s and adult pattern and self poisoning in children over 11’s. More children belonged to urban areas (72.3) as compared to rural areas. In both decades more than half of children belonged to middle income group followed by lower income group and least to upper income group. The overall mortality was low (12.5%) with majority of deaths (78%) occurring in older children. The incidence of kerosene ingestion was noticed to have dropped by more than half between 1980-1989 (14.9% vs 42%) The study highlights the unacceptable high rate of preventable accidental poisoning in young children and suicide and Para suicide in older children (11-15 years age group).

ii) They further stated that acute poisoning in children is an important pediatric-emergency and is a worldwide problem. It has been the subject of considerable study in the past decade in Europe, the United States of America, Australia and South Africa and has increasing incidence as well as change in pattern.

iii) Though poisoning in children below 5 years age tends to be accidental especially in the 18 month to 3 years olds, it is more often deliberate self-poisoning in older children.

iv) According to WHO, mortality due to poisoning in children up to 4 years age varies between 0.3 to 7.0 per 100,000 populations in various countries.

v) Age and Sex: The mean (±SD) age was 6.69 ± 5.4 years (range 1/365-15 years). One hundred and thirty children were between the 0-5 years age, 25 between 6-10 years and 62 between 11-15 years age. Boys outnumbered girls.

vi) Arbitrarily divided respondent on parental income. Between 1970-1979 the lower income had monthly income <500 rupees, middle ranging
between 500-1500 rupees and upper >1500 rupees. These were revised in 1980-1989 to lower as <1000 rupees, middle 1000-3000 rupees and upper >3000 rupees, respectively. Between 1970-1979, 29 children belonged to lower income group whereas the corresponding figures in 1980-1989 were 40 and 92, respectively. Only 3 children belonged to upper income group and in 3 the exact socio-economic status could not be determined.

vii) In 164 children, poisoning was accidental whereas in 50 it was suicidal and in 3 month homicidal. Routine household items accounted for 27.6% cases with kerosene being the commonest agent. Chemicals, pesticides and fumigants were involved in 35.5% cases. Of these aluminum phosphide (13.3%) and organ phosphorus compounds (10.1%) were the most commonly involved agents. Therapeutic drugs were responsible for 25.8% and opium given to children with diarrhea below 1 year was responsible for 4.1%. Poisonous seeds (Dhatura) and mushrooms were responsible for 3.2% patient and in 3.2% agent remained undetermined.

viii) Poisoning in childhood constituted 19.5% of all poisoning cases admitted in this hospital between 1970-1989 and accounted for <1% of all pediatric admission below 12 years age.

ix) In contrast to adults where accidental poisoning constituted 26%, it accounted for 78% of all poisoning admission in children. Majority of them (79%) belonged to 0-5 years age group. Boys outnumbered girls at ratio of 2.05:1.0. The high-risk children at a ratio are typically independent, active, active, restless and more often boys. Children between 1-3 years age are most vulnerable to accidents as they are mobile, inquisitive, and cannot differentiate between harmful and harmless things.

x) 25 children in the age group of 6-10 years admitted. Children in this age group have better understanding of dangers associated with drugs and chemicals and also they spend more time outside home.

xi) Majority of poisoning was due to household products. Kerosene, which is, used as cheap cooking fuel in urban household and for lighting in rural areas accounted for 25.34% cases. However its incidence dropped by half in 1980-1989 as compared to 1970-1979. This could be due to increasing use of liquefied petroleum gas for
cooking in urban household and better availability of electricity in rural areas.

xii) There was marked difference in incidence of poisoning in children belonging to the lower and middle income group as compare to those belonging to higher income group. This could be due to better living environment and greater awareness of hazards in latter group. Majority of children came from urban areas.

xiii) The present study demonstrate the unacceptability high rate of accidental poisoning in young children and also highlight poisoning due to self intent in older children. These can be reduced by improving living continues of child resistant containers for drugs, safer storage of chemicals and kerosene in house hold and reducing stress at school. They further suggest that there is urgent need for community surveys to find out causes and nature of acute poisoning in children and to design appropriate health education programme for prevention of acute poisoning both accidental and suicidal to general public and in school.

7) Sitaram, S, Sharma, U and Saxena, S. (1995) in their paper “Accidental Poisoning in Children” appeared in Indian Pediatrics reported that the figures for victims due to solving of opium, mercury, Iron tablet, alcohol, camphor, cough syrup, dettol, diazepam tablet, paint, soap, savlon, dye, bleaching powder and unknown tablets and powders; which worked out to be 18, 5, 4, 3, 3, 3, 2, 2, 1, 1, 1 and 21 respectively.

8) Singh Alka and Chaudhari, S.R. (1996) “Accidental Poisoning In Children” reported that out of 226 cases of accidental poisoning, 139 were boys (61.5%). The mean age was 2.12 years (± 1). Toddlers in the age group of 1 to 3 years were the most frequent victims as observed by previous authors. Boys who tend to be more hyperactive generally outnumber girls. In accidental poisoning higher number of occurrence of kerosene poisoning (57.7%) while drugs are other most common cause.

9) Mahadevan, S. (2000) in his article “Scorpion sting” observed that

i) The case fatality rates of 3-22% were reported among children hospitalized for scorpion stings in India, Saudi Arabia and South Africa.

ii) He further reported that children are more often stung by scorpion due to their exploratory nature. Presumably only the more serious cases reach
us but we gain the impression that in children the mortality is quite high. It is believed that children are more likely to die than adults since they receive a toxic dose on toxin to weight scale.

iii) Further in his paper he has appropriately provided information pertaining to preventive measures for successful management of scorpion sting as under-

1. Clear debris and trash from areas one inhabits
2. Inspect boots, clothing and bedding for scorpion
3. Never explore into places one cannot see
4. Spraying 10% DDT + 0.2% Permethrin + 2% chlorine in oil base or fuel oil + kerosene + cresol as spray in roof complexes and building foundation.
5. In Mexico scorpion sting is an endemic public health problem. Besides the effective use of anti-venom in that country, vaccines are being considered.

10) Mathur, G.P., Mathur, S. and Kushwaha, K.P. (1986) while providing primary treatment for electric shock recommended that-

1. The victim who has been glued to the line should be separated at once with the help of dry wooden stick, rubber gloves, thick bulb of dry cotton or cloth etc.
2. Disconnect circuit by switching off or by cutting wire with the help of bad conductor.
3. Respiratory failure should be managed by mouth-to-mouth breathing and by cardiac massage
4. Patient should be given cardio-respiratory support tube to prevent gastric dilatation or vomiting
5. The stomach is emptied with nasogastric tube to prevent gastric dilatation or vomiting
6. Antacids
7. Tetanus prophylaxis in case of burns.
8. Penicillin G 50,000 units/kg/day in single dose daily for 10 days, or single dose of 1200,000 units of Benzathine Penicillin IM.

11) Shrivastava, J.L; Narayan, R.P. and Tiwari, V.K. (1986) while providing first aid measure for burn suggested that-

1. Victim should be roll on the ground or should be wrapped with rugs or blanket to put off fire. Waterjel instantly cool and wets the burns area.

"एरामसी वास विकास सेखा योजना वगैरे मानविक संविधान यथासम्म विकासयोजना मित्त्रांने वासधारा तस्मानी, स्थानीय अनुपालन नियमांच्यांनी, अवधारणाआधारी व्यवसायक असून, व्यापक उपचार आणि उपचारकृतीत अनुदान"
bring immediate relief to pain
2. All the tight clothing should be loosened and free air passage for breathing should be ensured.
3. Burn wound should be drape in clean, laundry washed sheet
4. Application of Ice packs /cold water is advisable only to located area of burn like face, hands / feet.
5. Prophylaxis against tetanus
6. Antibiotic- Gentamycin
7. Sedation- Pethidine inj IV in dose of 1mg/kg body weight
8. 0.5% silver nitrate solution
9. Mafenide acetate cream (Sulfamylon)
10. Silver sulfadiazine cream (Flamazine Silverdene)

12) Kumar,S (1986) in “Head Injuries and first measures for burn” suggested Following measure to be taken as-

1. Hospitalization
2. Fracture- Bandages
3. Seizure- Anticonvulsants
4. Dehydrating agents like mannitol IV can be given in dose of 1g/kg body weight 8 hourly
5. Pain killer
6. Wounds should be clean with spirit and sprinkled.

13) Ghose, S. (1986) in his paper “Ocular Emergencies” described that-
Children playing indiscriminately with pointed objects and sharp toys and celebrating festival with ritual fire works and arrows, ball, stick, ghillidanda etc. only serve to propagate these tragic and so avoidable loss of eyes.

He further proposed some first aid and curative treatment as-

1. Removal of foreign bodies
2. Immediate injection of Vit.B₁, B₆ and B₁₂
3. Antibiotic treatment
4. Administration of hypotensive agents like glycerol, disimex or IV mannitol to reduce the chances of rise in intraocular pressure and corneal blood staining- bed rest may help.

14 Taneja, A. (1986) suggested curative measures for cuts and abrasion as-

1. Clean the wound with water
2. Apply band aid
3. Tetanus immunization

15) Pearn, J, Nickson, J, Wilkey, I. (1976) reported that the cause of Drowning and preventive strategies depends on the age of patient. In small children 40-90% of drowning occur in swimming pools usually located in the victim backyard.

16) Baker, S.P., O’neill, B; Ginsberg, M.J et al. (1992) reported that falls, poisoning, fires and burns, drowning, suffocation and aspiration, firearms and bicycling cause nearly 2/3rd of 48,000 deaths each year.

It was further reported that the mortality rate for poisoning among children 0-4 years of age was 0.2/100000 in 1988.

17) Anonymous (1993) in their publication reported that fires and burns were the second leading cause of unintentional injury related to death among children amongst aged 0-9 years. in 1991. Most injuries and 75 to 90 % deaths from fires occur in residential fires.

18) Griego, R.D., Rosen, T., et.al. (1995) article captioned “Dog, Cat and Human bites” mentioned that mammalian bite are common childhood injuries, that represent up to 1% of all hospital emergency room visit. The most common bite injuries are due to dogs (18% to 90%) with smaller numbers due to cats (55 to 10%) rodents (3%) and humans (2 to 3%). Children between the ages of 5 to 14 years accounts for only 20% of population, but are the victims of 35% to 50% bite injuries. They further observed-

i) The accidents were responsible for 7.7% of the total admission in hospital. Head injury was most frequently encountered (57.1%). Followed by accidental poisoning (20.4%), burn (9.2%). Other injuries (9.1%),bites and stings (1.5%),near drowning (1.3%) and foreign body (1.2%). Overall mortality rate was 3.3%.

ii) Accidents in infancy and childhood occurs as a result of complex interaction of various factors. The incidence can be decrease to great extent by health education and environmental control.

iii) Head injury was the commonest accident in which children were involved (57.1%), majority being in the age group 1-5 years and predominately male (79%). 85% of these were a result of fall from height.
iv) Accidental poisoning constituted 20.4% food poisoning and kerosene poisoning were the most frequently encountered forms.

v) Children with burns constituted 9.2% of the total. 91% of these had burns due to fire, or scalds due to water or milk and rest had sustain either chemical or electric burn. Mortality rate was 3.1%.

vi) Snake and scorpion bites were reported predominately (80%) from rural areas than the urban one. Mortality was 9%.

vii) 30 cases were admitted due to foreign body ingestion, 14 had inhaled the object, while 16 swallowed it. Betelnuts and coins were the more common object encountered. Surgical intervention was required in 16 of these cases.

2.3 Accidents In Infancy and Childhood:

Sitaram, S. Sharma, U. et al (1985) "Accidents in Infancy and Childhood" reported-

i) The accidents were responsible for 7.7% of the total admission in hospital. Head injury was most frequently encountered (57.1%). Followed by accidental poisoning (20.4%), burn (9.2%), Other injuries (9.1%), bites and stings (1.5%), near drowning (1.3%) and foreign body (1.2%). Overall mortality rate was 3.3%.

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2.4 Knowledge and Precautionary Measures and Remedies:

19) Wayne, E.R. (1987) “Prevention of Household and Recreational Injuries in Children below 15 years of Age” reported that-

i) In 1998-2100 Children died because of fall from different places.

ii) Adults should remove hazards from the environment. And therefore health education for all the people is the most important measure of preventing children Injuries.

20) Griagorovic, L.P. (1988) advised that, injuries are major public health problem resulting in death, disability and immense cost to injured individual, to their families and to the society.

21) Kay, E (1989) wants to put forth the positive aspect of the childhood accidents by stating that in most childhood accidents the outcome is a minor bruise and wounded pride, which gives the victim increased knowledge and desire to overcome the obstacle next time.

22) Anonymous (1994-95) in “Home safety Fact Sheet- Child safety in Home” published by Royal Society for the Prevention of Accident, reported the most serious injuries are associated with Heat related accidents and falls from a height.

23) Bhadange, S. and Roodkar, P.N. (1998) “Knowledge And Precautionary Measure And Remedies Adopted By ICDS Beneficiary Village Women About Domestic accidents In Relation To Children” thesis which was submitted for the award of Msc. Degree in Home-Science at Amravati University. As per one of the objectives they have furnished information relating to knowledge of women in order to avoid Home accidents. Some of the alternatives, they have given were as under-

i) pins and needles should not be used while dressing the child;

ii) lamps and naked flames should not be kept within the reach of the child;
electric plug-points should be high and out of reach of the child;
materials like kerosene, phenyl, naphthalene balls, detergents etc. should be kept out of reach of the child;
knives scissors and other sharp implements should not be kept lying around where children can get at them;
stoves, angithis etc. should not be kept on the floor. Children should not be allowed to enter the kitchen while cooking is being done;
furniture in the Anganwadi center or in the home should be sturdy so that it does not fall over the playing child;
staircase and steps should be blocked by barrier;
balloons and plastic bags are hazardous because they may suffocate the child;

Tubs of water in the Anganwadi or in the home are dangerous as very young children could get drowned in them. So also stagnant water near the Anganwadi or home is a source of danger;
no poisonous plant should be growing near the Anganwadi or home;
kite flying from roof-tops should be discouraged; and
children should not be allowed to play with sticks or sharp pointed objects. Care should also be taken when they play with firecrackers to see that no burns occurs.

It was further reported that the reasons for death due to Home accidents as burn caused due to hot water, use of crackers at the time of Depawali, Non provision of railing to stair case and swallowing of sleeper pins.

25) Powlovana, L.P.(1998) under the title “Injuries to children can be Avoided” published in world Health Forum observed that 10% of the children died because of falls from different types of furniture.

26) Anonymous (1999) in Times of India it was reported from the time of India attains political independence 12 lakh people died only because of road accidents. And according to them 75,000 people die every year because of road accidents.

2.5 Causes of Deaths:

27) James, W (1998) despite New regulation, caution a must when baby walker are used
Can med Assn J, 139 pp 73-74 reported that there were 103,459 poisoning cases and 365 deaths due to poisoning.
28) Anonymous (1989) in Stastical Canada, Canadian Center for Health Information: Hospital morbidity catalogue reported that in the year 1987, 424 children died in Canada because of dangerous poisons. Similarly in 1987, 415 and 139 children died because of suffocation and cycle accidents respectively.

2.6 Age and time of Accidents:

29) According to Gaffin, T and Jackson, H (1983) remarked that:
Childhood is that period of life characterized by growth and development and the question of child development is one of the most important factor in accident. They further state that the children have different accidents at different ages. A young toddler of 2 to 3 explore his environment and generally minor accidents in and about the home where he spent most of his time. A young school child of 5 to 6 has more serious accidents caused by his immaturity, impulsiveness and lack of appreciation of danger, such as dashing out accidents in traffic.

30) Thompson, D.C, Thompson, R.S., et al (1990) reported that the injury rate has been estimated at 187/1,00,000 and the head injury rate at 51 to 75/10000 with peak rate occurring among children aged 5-14.

31) It was very interesting to note from Anonymous (1991) in standard annual report, that most of the accidents happen been late afternoon and early evening, particularly in the summer during school holidays and at weekends. Some happen at times of stress when the usual routine is changed or when people are in hurry. It was further indicated that distraction and in adequate supervision are often the cause of accidents. Besides, poor housing and overcrowded conditions leads to increased number of accidents.

Older children are more likely to sustain fractures than younger counterparts. It was further observed that younger children have a higher percentage of burns and scalds, as well as poisoning and ingestion accidents. That the largest number of accidents happen in the living / dinning room. However, the most serious accidents happen in the kitchen and on the stairs. Every year over 67,000 children experience an accident in the kitchen-45, 000 of these are aged between 0-4 years. 54, 000 children have accident on the stairs.
That 0-4 year olds have the most accidents at home and boys are more likely to have accidents than girls. 39% of all children accidents involve falls.

2.7 Relationship of Accidents with Economy:
33) Establishing the relationship of an accident with economic expenditure Gallagher (1987) stated that injuries are major public health problem resulting in death, disability and immense cost to injured individual, to their families and to the society.

2.8 Childhood Injuries in USA
34) Anonymous (1990) “Childhood Injuries in united States” Am J Dis Child,144;627-646 reported that due to different types of fires including in kitchen accidents 402 children died.