

CHILD HEALTH NURSING (PAEDIATRIC NURSING)

AIM:

This course is designed to assist students in developing expertise and in-depth understanding of the Pediatric Nursing field. It will help students to develop advanced skills for nursing intervention in various pediatric medical and surgical conditions. It will help students to appreciate the child as a holistic individual and develop skill to function as neonatal and pediatric nurse specialist. It will further enable the student to function as pediatric nurse practitioner/specialist, educator, manager and researcher in the field of Pediatric nursing.

OBJECTIVES:

At the end of the course the students are be able to:

- Appreciate the history and developments in the field of pediatrics and pediatric nursing as a specialty
- Apply the concepts of growth and development in providing care to the pediatric clients and their families.
- Appreciate the child as a holistic individual
- Perform physical, development, and nutritional assessment of pediatric clients
- Apply nursing process in providing nursing care to neonates and children.
- Integrate the concept of family centered pediatric nursing care with related areas such as genetic disorders, congenital malformations and long term illness.
- Recognize and manage emergencies in neonates.
- Describe various recent technologies and treatment modalities in the management of high risk neonates.
- Appreciate the legal and ethical issues pertaining to pediatric and neonatal nursing
- Prepare a design for layout and management of neonatal units
- Apply the nursing process in the care of ill infants to pre adolescents in hospital and community
- Incorporate evidence based nursing practice and identify the areas of research in the field of pediatric / neonatal nursing
- Recognize the role of pediatric nurse practitioner and as a member of the pediatric and neonatal health team.

- Teach pediatric nursing to undergraduate students and in-service nurses.
- Identify areas of research in the field of pediatric nursing.

COURSE CONTENTS:

Unit I. Introduction & growth and development of children:

- Historical development of Pediatrics and Pediatric Nursing
- Philosophy of pediatric care, Changing trends in Pediatric Nursing.
- Role of family in child care, Community-based nursing of the child and family
- Ethical and cultural issues in pediatric Care, Current principles, practices and trends in Pediatric Nursing.
- Role of pediatric nurse in various settings – Expanded and extended.
- Role of pediatric nurse in hospital and community for prevention and illness.
- Rights of children and special laws and Ordinance relating to children.
- Current status of child health in India; National goals, Five year plans, National and international organizations related to child health, National health programs related to child health.

Growth and development

- Principles of growth and development, Factors affecting growth and development
- Concepts and theories of growth & Development Biophysical Psycho-social theories
Psychosexual theories Moral development theories Cognitive development theories
Spiritual theories
- Development tasks and special needs from infancy to adolescence, developmental milestones,
- Assessment of growth and development of pediatric clients,
- Growth Monitoring, Role of play in growth and development of children.

Unit II. Pre-natal pediatrics, preventive pediatrics & assessment of pediatric clients:

- Embryological and fetal development, Prenatal factors influencing growth and development of fetus.
- Genetic patterns of common pediatric disorders, chromosomal aberrations, genetic assessment and Counseling legal and ethical aspects of genetic, Screening and counseling
- Role of nurse in genetic counseling Importance of prenatal care and role of pediatric

nurse.

Preventive Pediatrics

- Concept, aims and scope of preventive Pediatrics
- Maternal health and its influence on child health antenatal aspects of preventive pediatrics.
- Mortality among children, MCH indicators, Recent trends in MCH services.
- Revision of common Communicable diseases
- Immunization, expanded program on immunization / universal immunization program and cold chain.
- Nutrition and Nutritional requirements of children,
- Fluid and electrolyte balance in Children
- Pattern of feeding, breast feeding, baby-friendly hospital initiative, Artificial feeding, Weaning
- Nutritional Programs and welfare Services.
- Health education, nutritional education for children.
- Organization and setup of cratch.

Assessment of Pediatric clients

- History taking, Developmental assessment, Physical assessment, Nutritional assessment, Family assessment, Respiratory assessment, Cardiac assessment, Neurological assessment, Pain assessment.
- Nursing process in care of children.

Unit III. Neonatal nursing:

- Concept and Scope of Neonatology nursing
- Neonatal Screening
- Neonatal resuscitation, New born baby-profile and characteristics of the new born
- Assessment of the new born
- Nursing care of the new born at birth, care of the new born and family
- Planning and organization of level I,II and III neonatal care units NICU and environment
- Equipment and personnel management
- High risk neonate – pre term and term neonate and growth retarded babies.
- Low birth weight babies

- Transport of the high risk neonate to NICU
- Neonatal infections prevention and management
- Identification and classification of neonates with infection HIV and AIDS, Ophthalmic neonatrum, congenital syphilis.
- High risk new born – Identification, classification and nursing management.
- Organization of neonatal care, services (Levels), transport, neonatal intensive care unit, organization and management of nursing services in NICU.

Management of Neonatal Problems:

- Respiratory distress syndrome & HMD, Neonatal Hypoglycemia, Neonatal Hyperbilirubinemia, Common metabolic problems, Nutritional requirements, Neonatal seizures, Neonatal mechanical ventilation, Thermo regulation, follow up care and assessment of high risk infants, **Pierre robin syndrome, Caroli disease.**

Unit IV. Behavioral / social pediatrics, developmental disturbances, disease conditions in children, nursing management of the sick/ hospitalized child & IMNCI (integrated management of neonatal and childhood illnesses):

- Parent child relationship
- Basic behavioral pediatric principles and specific behavioral pediatric concepts/ disorders, maternal deprivation, failure to thrive, child abuse, the battered child.
- Common behavioral and social problem and their management, Child guidance clinic.

Developmental disturbances

- Adjustment reaction to school, learning disabilities. Habit disorders, speech disorders, Conduct disorders, early infantile autism, Attention deficit hyperactive disorders (ADHD), depression and childhood schizophrenia.
- Physically challenged, causes, features, early detection & management. Cerebral palsied child, mentally challenged child. Training & rehabilitation of challenged children.

Disease conditions in children

Pathophysiology, assessment (including interpretation of various invasive and non-invasive diagnostic procedures) treatment modalities and nursing intervention in selected pediatric medical surgical problems/Disorders.

Child with respiratory disorders:

- Upper respiratory tract: choanal atresia, tonsillitis, epistaxis, aspiration.
- Lower respiratory tract: Broncheolitis, Bronchopneumonia, Asthma, cystic fibrosis.

Child with gastro-intestinal disorders:

- Diarrheal diseases, gastro esophageal reflux. Cleft lip, cleft palate and conditions requiring plastic surgery, Tracheo esophageal fistula/ atresia, Hirschsprungs' disease / megacolon, malrotation, intestinal obstruction, duodenal atresia, gastrochisis, exomphalus, anorectal malformation, omphalocele, diaphragmatic hernia. Hepatic disorders: Hepatitis, Indian childhood cirrhosis, liver transplantation. Malabsorption syndrome, Malnutrition.

Child with renal/ urinary tract disorders:

- Nephrotic syndrome, Nephritis, Hydronephrosis, hemolytic-uremic syndrome, kidney transplantation. Hypospadias, Epispadias, Undescended testes, Exstrophy bladder.

Child with cardio-vascular disorders:

- Acquired: Rheumatic fever, Rheumatic heart disease, Congnital: Cynotic and acynotic

Child with endocrine/metabolic disorders:

- Diabetes insipidus, Diabetes Mellitus - IDDM, NIDDM, hyper and hypo thyroidism, phenylketonuria, galactosemia.

Child with Neurological disorders:

- Convulsions, Meningitis, encephalitis, guillian- Barre syndrome. Anomalies of the nervous' system: Spina bifida, Meningocele, Myelomeningocele, hydrocephalus.

Child with blood disorders:

- Anemias, thalassemias, hemophilia, polycythemia.

Child with oncological disorders:

- Leukemias, Lymphomas, Wilms tumor, nephroblastomas, neuroblastomas, Rhabdomyosarcoma, retinoblastoma, hepatoblastoma, bone tumors.
- Solid tumors of childhood, Nephroblastoma, Neuro blastoma, Hodgkin's/Non Hodgkin's Lymphoma, Hepatoblastoma, Rhabdomyosarcoma

- Nursing management of the child with traumatic injuries: General principles of managing Pediatric trauma.

Nursing Management of hospitalized sick children

- Difference between child and adult Care, Meaning of hospitalization of the child, preparation for hospitalization, effects of hospitalization on the child and family.
- Stressors and reactions related to developmental stages, play activities for ill / hospitalized child.
- Nursing care of hospitalized child and FAMILY - principles and practices.

IMNCI

- Concept, Rationale for an evidence based syndromes approach & Components.
- Principles of IMNCI & Case management process, Outpatient management of young infants' age up to 2 months & of children age 2 months to 5 years, Principles of management of sick children in small hospital
- National Population policy 2000, Re productive and child health.

Unit V. Crisis and nursing intervention, drugs used in pediatrics, education and training in pediatric care & administration and management of pediatric care unit:

- The hospitalized child, Terminal illness & death during childhood. Nursing intervention-counseling.

Drugs used in pediatrics

- Criteria for dose calculation, Administration of drugs, oxygen and blood.
- Drug interactions, adverse effects and their management.

Education and training in pediatric care

- Staff orientation, training and development, In-service education, program, Clinical teaching programs.

Administration and management of pediatric care unit

- Design & layout, Staffing, Equipment, supplies, Norms, policies and protocols, Practice standards for pediatric care unit Documentation.

| Theme No | Theme Name | Specific objectives | Contents |
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| I | Introduction & growth and development of children. | <p>At the end of unit students are able to</p> <p>Knowledge: Know the basic needs of child health nursing and Understand the programmes of child health. Understand the principles and role of nurse in pediatric care.</p> <p>Skill: Practice principles of pediatric nursing in clinical setting.</p> <p>Attitude: Develop the positive attitude regarding child health. Adapts to various roles of pediatric nurse in different settings.</p> | <ul style="list-style-type: none"> • Historical development of Pediatrics and Pediatric Nursing • Philosophy of pediatric care, Changing trends in Pediatric Nursing. • Role of family in child care, Community-based nursing of the child and family • Ethical and cultural issues in pediatric Care, Current principles, practices and trends in Pediatric Nursing. • Role of pediatric nurse in various settings – Expanded and extended. • Role of pediatric nurse in hospital and community for prevention and illness. • Rights of children and special laws and Ordinance relating to children. • Current status of child health in India; National goals, Five year plans, National and international organizations related to child health, National health programs related to child health. <p>Growth and development</p> <ul style="list-style-type: none"> • Principles of growth and development, Factors affecting growth and |

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| | | | <p>development</p> <ul style="list-style-type: none"> • Concepts and theories of growth & Development Biophysical Psycho-social theories Psychosexual theories Moral development theories Cognitive development theories Spiritual theories • Development tasks and special needs from infancy to adolescence, developmental milestones, • Assessment of growth and development of pediatric clients, • Growth Monitoring, Role of play in growth and development of children. |
| II | Pre-natal pediatrics, preventive pediatrics & assessment of pediatric clients. | <p>At the end of unit students are able to</p> <p>Knowledge: Know the normal growth and development of fetus. Know the programmes of preventive pediatrics. Understand the deviation of growth and development.</p> <p>Skill: Develop the process of genetic counseling. Prepare the parents to have a healthy child. Prepare good nursing care plan in the illness process.</p> | <ul style="list-style-type: none"> • Embryological and fetal development, Prenatal factors influencing growth and development of fetus. • Genetic patterns of common pediatric disorders, chromosomal aberrations, genetic assessment and Counseling legal and ethical aspects of genetic, Screening and counseling • Role of nurse in genetic counseling Importance of prenatal care and role of pediatric nurse. <p>Preventive Pediatrics</p> <ul style="list-style-type: none"> • Concept, aims and scope of preventive Pediatrics |

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| | | | <ul style="list-style-type: none"> • Maternal health and its influence on child health antenatal aspects of preventive pediatrics. • Mortality among children, MCH indicators, Recent trends in MCH services. • Revision of common Communicable diseases • Immunization, expanded program on immunization / universal immunization program and cold chain. • Nutrition and Nutritional requirements of children, • Fluid and electrolyte balance in Children • Pattern of feeding, breast feeding, baby-friendly hospital initiative, Artificial feeding, Weaning • Nutritional Programs and welfare Services. • Health education, nutritional education for children. • Organization and setup of cratch. <p>Assessment of Pediatric clients</p> <ul style="list-style-type: none"> • History taking, Developmental assessment, Physical assessment, Nutritional assessment, Family |
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| | | | <p>assessment, Respiratory assessment, Cardiac assessment, Neurological assessment, Pain assessment.</p> <ul style="list-style-type: none"> • Nursing process in care of children. |
| III | Neonatal nursing. | <p>At the end of unit students are able to</p> <p>Knowledge: Understand the assessment of newborn and identify the problems of neonate.</p> <p>Skill: Organize the different levels of neonatal care units and Provide effective nursing care to neonate with problems. Develop skill in neonatal resuscitation.</p> <p>Attitude: Develop considerate attitude towards problem neonate and parents of such neonate and develop the neonatal resuscitation.</p> | <ul style="list-style-type: none"> • Concept and Scope of Neonatology nursing • Neonatal Screening • Neonatal resuscitation, New born baby-profile and characteristics of the new born • Assessment of the new born • Nursing care of the new born at birth, care of the new born and family • Planning and organization of level I,II and III neonatal care units NICU and environment • Equipment and personnel management • High risk neonate – pre term and term neonate and growth retarded babies. • Low birth weight babies • Transport of the high risk neonate to NICU • Neonatal infections prevention and management • Identification and classification of neonates with infection HIV and AIDS, Ophthalmic neonatrum, |

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| | | | <p>congenital syphilis.</p> <ul style="list-style-type: none"> • High risk new born – Identification, classification and nursing management. • Organization of neonatal care, services (Levels), transport, neonatal intensive care unit, organization and management of nursing services in NICU. • Respiratory distress syndrome & HMD, Neonatal Hypoglycemia, Neonatal Hyper bilirubinemia, Common metabolic problems, Nutritional requirements, Neonatal seizures, Neonatal mechanical ventilation, Thermo regulation, follow up care and assessment of high risk infants, Pierre robin syndrome, Caroli disease. |
| IV | Behavioral / social pediatrics, developmental disturbances, disease conditions in children, nursing management of the sick/hospitalized child & IMNCI. | At the end of unit students are able to Knowledge: Know the concept of behavior and social pediatric nursing. Understand developmental disturbances and their implications for pediatric nursing. Understands and explains the pathophysiology and treatment modalities for various systemic diseases in children. | <ul style="list-style-type: none"> • Parent child relationship • Basic behavioral pediatric principles and specific behavioral pediatric concepts/ disorders, maternal deprivation, failure to thrive, child abuse, the battered child. • Common behavioral and social problem and their management, Child guidance clinic. |

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| | | <p>Distinguish the difference between the child and adult care. Know the concept and principles of IMNCI.</p> <p>Skill: Develop skills in identifying developmental disturbances at the earliest. Renders Competent, comprehensive and culturally congruent care to the children suffering from various systemic diseases. Create newer approach to the nursing care of child health. Develop the reproductive and child health programme.</p> <p>Attitude: Guide the parents for corrective therapeutic modalities for developmental disturbances. Develops competence in rendering care to children with different levels of dependency and serious nature of disease condition. Provides the comprehensive nursing care to patient with infertility.</p> | <p>Developmental disturbances</p> <ul style="list-style-type: none"> • Adjustment reaction to school, learning disabilities. Habit disorders, speech disorders, Conduct disorders, early infantile autism, Attention deficit hyperactive disorders (ADHD), depression and childhood schizophrenia. • Physically challenged, causes, features, early detection & management. Cerebral palsied child, mentally challenged child. Training & rehabilitation of challenged children. <p>Disease conditions in children</p> <p>Pathophysiology, assessment (including interpretation of various invasive and non-invasive diagnostic procedures) treatment modalities and nursing intervention in selected pediatric medical surgical problems/Disorders.</p> <p>Child with respiratory disorders:</p> <ul style="list-style-type: none"> • Upper respiratory tract: choanal atresia, tonsillitis, epistaxis, aspiration. • Lower respiratory tract: |
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| | | | <p>Broncheolitis, Bronchopneumonia, Asthma, cystic fibrosis.</p> <p>Child with gastro-intestinal disorders:</p> <ul style="list-style-type: none">• Diarrheal diseases, gastro-esophageal reflux. Cleft lip, cleft palate and conditions requiring plastic surgery, Tracheo-esophageal fistula/ atresia, Hirschsprungs' disease / megacolon, malrotation, intestinal obstruction, duodenal atresia, gastrochisis, exomphalus, anorectal malformation, omphalocele, diaphragmatic hernia. Hepatic disorders: Hepatitis, Indian childhood cirrhosis, liver transplantation. Malabsorption syndrome, Malnutrition. <p>Child with renal/ urinary tract disorders:</p> <ul style="list-style-type: none">• Nephrotic syndrome, Nephritis, Hydronephrosis, hemolytic-uremic syndrome, kidney transplantation. Hypospadias, Epispadias, Undescended testes, Exstrophy bladder. <p>Child with cardio-vascular</p> |
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| | | | <p>disorders:</p> <ul style="list-style-type: none"> • Acquired: Rheumatic fever, Rheumatic heart disease, Congnital: Cynotic and acynotic <p>Child with endocrine/metabolic disorders:</p> <ul style="list-style-type: none"> • Diabetes insipidus, Diabetes Mellitus - IDDM, NIDDM, hyper and hypo thyroidism, phenylketonuria, galactosemia. <p>Child with Neurological disorders:</p> <ul style="list-style-type: none"> • Convulsions, Meningitis, encephalitis, guillian- Barre syndrome. Anomalies of the nervous' system: Spina bifida, Meningocele, Myelomeningocele, hydrocephalus. <p>Child with blood disorders:</p> <ul style="list-style-type: none"> • Anemias, thalasseмии, hemophilia, polycythemia. <p>Child with oncological disorders:</p> <ul style="list-style-type: none"> • Leukemias, Lymphomas, Wilms tumor, nephroblastomas, neuroblastomas, Rhabdomyosarcoma, retinoblastoma, hepatoblastoma, bone tumors. • Solid tumors of childhood, |
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| | | | <p>Nephroblastoma, Neuro blastoma, Hodgkin's/Non Hodgkin's Lymphoma, Hepatoblastoma, Rhabdomyosarcoma</p> <ul style="list-style-type: none"> • Nursing management of the child with traumatic injuries: General principles of managing Pediatric trauma. <p>Nursing Management of hospitalized sick children</p> <ul style="list-style-type: none"> • Difference between child and adult Care, Meaning of hospitalization of the child, preparation for hospitalization, effects of hospitalization on the child and family. • Stressors and reactions related to developmental stages, play activities for ill / hospitalized child. • Nursing care of hospitalized child and FAMILY - principles and practices. <p>IMNCI</p> <ul style="list-style-type: none"> • Concept, Rationale for an evidence based syndromes approach & Components. • Principles of IMNCI & Case management process, Outpatient management of young infants' age up to 2 months & of children age 2 months |
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| | | | <p>to 5 years, Principles of management of sick children in small hospital</p> <ul style="list-style-type: none"> • National Population policy 2000, Reproductive and child health. |
| V | <p>Crisis and nursing intervention, drugs used in pediatrics, education and training in pediatric care & administration and management of pediatric care unit.</p> | <p>At the end unit the students are able to:</p> <p>Knowledge: Understand the nature of crises situations for pediatric clients. Explain the drugs used in pediatric. Understand need for staff orientation and development in pediatric nursing care. Understand different policies, protocols and uses of various equipments in the pediatric wards.</p> <p>Skill: Recognize the various crises situations and perform promptly and efficiently. Administer various medications to pediatric clients correctly and observe for their effects. Plan and implement in-service education programme for staff. Practice standards for pediatric care.</p> <p>Attitude: Identify means to prevent crises among pediatric population and provide health education to this effect. Educate</p> | <ul style="list-style-type: none"> • The hospitalized child, Terminal illness & death during childhood. Nursing intervention-counseling. <p>Drugs used in pediatrics</p> <ul style="list-style-type: none"> • Criteria for dose calculation, Administration of drugs, oxygen and blood. • Drug interactions, adverse effects and their management. <p>Education and training in pediatric care</p> <ul style="list-style-type: none"> • Staff orientation, training and development, In-service education, program, Clinical teaching programs. <p>Administration and management of pediatric care unit</p> <ul style="list-style-type: none"> • Design & layout, Staffing, Equipment, supplies, Norms, policies and protocols, Practice standards for pediatric care unit Documentation. |

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| | | parents about administration of medication to children of various age groups. Participates in clinical teaching activities. Plan and design pediatric care unit. | |
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Suggested Reading Material

- 1) Achar ST and Viswanathan -“Text book of Pediatrics; A Clinical Approach”
- 2) Alexander N M, Brown MS;-“Pediatric Physical Diagnosis for Nurses”
- 3) Ball- “Pediatric Nursing caring for children”
- 4) Blake G, Florence & Wright- “Essentials of Pediatric Nursing”
- 5) Barbara EW- “Guidelines in the care of the low birth weight”
- 6) Bowden Greenberg- “Pediatric Nursing Procedure”
- 7) Browder J J- “Nursing care of children” F A Davis
- 8) Ghai O P-“Essential Text Book Of Pediatrics”
- 9) Gupte Suraj;-“Neonatal Emergencies”
- 10) Gupte Suraj-“A Short Text book of Pediatrics”