

Pediatric nursing, Mental Health and Leadership and Management in Nursing Planning

In-depth Study Notes for Loksewa- ANM & SN

Pediatric Nursing

7.1 Major Developmental Characteristics and Milestones

Pediatric development refers to the physical, cognitive, and emotional growth of children from birth to adolescence. Developmental milestones are the typical achievements that children reach as they grow.

Infancy (0-1 Year):

- **Physical Development:** Rapid growth, weight doubles by 6 months, and triples by 1 year. Head circumference increases.
- **Motor Skills:** Rolls over (3–5 months), sits without support (6-8 months), crawls (7-9 months), and begins to walk (9–12 months).
- **Cognitive Development:** Begins to recognize faces, babbles, starts to respond to simple verbal commands.
- **Social/Emotional Development:** Establishes trust through bonding with caregivers, smiles socially (2–3 months).

Toddler (1-3 Years):

- **Physical Development:** Gains muscle mass, stands and walks independently, fine motor skills improve (e.g., holding a spoon).
- **Cognitive Development:** Development of language skills, understands simple instructions, begins to form sentences.
- **Social/Emotional Development:** Develops independence but also experiences separation anxiety.

Preschool (3-6 Years):

- **Physical Development:** Growth slows, but coordination and balance improve. Fine motor skills like using scissors and drawing.
- **Cognitive Development:** Engages in more imaginative play, begins to understand concepts like time and size.
- **Social/Emotional Development:** Develops friendships, enjoys group activities, expresses feelings but may have difficulty regulating emotions.

School-Age (6-12 Years):

- **Physical Development:** Steady growth, increased strength and coordination, development of permanent teeth.
- **Cognitive Development:** Logical thinking emerges, better problem-solving abilities, learns academic subjects.
- **Social/Emotional Development:** Stronger peer relationships, self-esteem develops, focus shifts towards mastery of skills and gaining approval.

Adolescence (12-18 Years):

- **Physical Development:** Puberty, rapid physical changes (growth spurt), sexual maturity.
- **Cognitive Development:** Abstract thinking, reasoning, and complex problem-solving abilities.
- **Social/Emotional Development:** Development of personal identity, peer influence, and independence from parents.

7.2 Promoting Optimum Development of Children

Promoting optimal development involves ensuring a safe, nurturing environment, appropriate nutrition, and opportunities for physical, cognitive, and emotional growth.

Key Strategies:

1. **Proper Nutrition:** Breastfeeding during the first 6 months, balanced diet rich in vitamins, minerals, and proteins for physical and cognitive development.
2. **Encouragement of Physical Activity:** Promoting outdoor play, physical exercises, and fine motor skills development.
3. **Early Stimulation:** Providing sensory-rich experiences, such as reading, playing, and talking to the child, to promote cognitive and social development.
4. **Emotional Support:** Building strong emotional bonds through secure attachment with caregivers and encouraging positive social interactions.
5. **Safety Measures:** Reducing the risk of accidents by childproofing homes and ensuring proper supervision.

7.3 Adolescent Changes and Problems

Adolescence is a period of significant physical, emotional, and social change. These changes can bring about challenges that require support.

Physical Changes:

- **Puberty:** Development of secondary sexual characteristics such as breast development in girls and voice changes in boys.
- **Growth Spurts:** Increased height and weight, particularly in early adolescence.
- **Hormonal Changes:** Can lead to mood swings, acne, and other skin changes.

Psychosocial Issues:

- **Identity Formation:** Adolescents may struggle with self-esteem, body image, and the development of their identity.
- **Peer Pressure:** Influences can lead to risky behaviors, such as substance use, early sexual activity, or unhealthy eating patterns.

Nursing Interventions:

- Provide counseling and support on body changes, self-image, and decision-making.
- Encourage healthy lifestyles, such as good nutrition, physical activity, and safe sexual practices.
- Screen for mental health issues like depression or anxiety, which are common in adolescence.

7.4 Six Major Killer Diseases

Six major killer diseases in children, which significantly contribute to childhood morbidity and mortality globally, include:

1. **Diarrheal Diseases:** Leading cause of death in children under five, primarily caused by contaminated water and poor sanitation.
2. **Pneumonia:** Respiratory infections leading to death, especially in low-resource settings.
3. **Malaria:** A deadly mosquito-borne disease, prevalent in tropical and subtropical regions.
4. **Measles:** A preventable viral infection that can lead to severe complications like pneumonia and encephalitis.
5. **Neonatal Infections:** Includes sepsis, pneumonia, and infections related to birth complications.
6. **Birth Asphyxia:** A condition where the infant does not receive adequate oxygen during or shortly after birth.

7.5 Common Health Problems in Children and Their Nursing Management

1. **Respiratory Infections** (e.g., pneumonia, asthma):
 - **Management:** Provide oxygen therapy, administer bronchodilators, and ensure proper hydration.

- **Nursing Care:** Monitor respiratory rate, oxygen saturation, and administer prescribed antibiotics or medications.
- 2. **Diarrheal Diseases:**
 - **Management:** Oral rehydration therapy (ORT), zinc supplements, and antibiotics if necessary.
 - **Nursing Care:** Monitor hydration status, administer ORT, and teach caregivers proper hand hygiene and food safety practices.
- 3. **Malnutrition:**
 - **Management:** Nutritional support with a balanced diet, supplementation (e.g., vitamin A, iron), and management of underlying causes.
 - **Nursing Care:** Monitor growth and weight gain, educate caregivers on nutrition, and encourage breastfeeding.
- 4. **Injuries** (e.g., falls, burns, poisoning):
 - **Management:** First aid, wound care, and prevention education.
 - **Nursing Care:** Perform injury assessments, provide comfort measures, and educate families on child safety at home.

7.6 Common Health Hazards in Children in Nepal and Their Prevention

1. **Malnutrition:** Lack of sufficient nutrients leads to growth failure and weakened immunity.
 - **Prevention:** Promote breastfeeding, community nutrition programs, and access to fortified foods.
2. **Infectious Diseases:** Diseases like measles, tuberculosis, and diarrhea.
 - **Prevention:** Immunization programs, promoting hygiene and sanitation, and early medical intervention.
3. **Accidents and Injuries:** Falls, burns, drowning, and road traffic accidents.
 - **Prevention:** Childproofing homes, road safety education, and supervision.
4. **Air Pollution:** High levels of air pollution in cities like Kathmandu.
 - **Prevention:** Reducing exposure to pollutants, especially during air pollution peaks, and promoting clean energy use.

7.7 Congenital Disorders/Disabilities

Congenital disorders are health conditions present at birth that can be genetic or environmental in origin.

1. **Down Syndrome:** A genetic disorder causing intellectual disabilities and physical abnormalities.
2. **Cerebral Palsy:** A group of disorders affecting movement and muscle tone.
3. **Congenital Heart Defects:** Abnormalities in the heart structure that can affect circulation and oxygenation.
4. **Neural Tube Defects:** Conditions like spina bifida, where the spinal cord does not develop properly.

Nursing Care:

- **Early Detection and Intervention:** Provide developmental screenings and early interventions such as physical therapy or speech therapy.
- **Family Support:** Educate families about the condition and available resources.
- **Management:** Coordinate care with specialists (e.g., cardiologists, neurologists).

7.8 Role of Nurses in Reduction of Mortality Rate of Children

Nurses play a critical role in reducing child mortality rates through:

1. **Immunization Programs:** Ensuring timely vaccination to prevent childhood diseases.
2. **Health Education:** Educating families about hygiene, nutrition, and disease prevention.
3. **Early Detection and Referral:** Identifying early signs of diseases such as pneumonia, malaria, or malnutrition and referring for appropriate treatment.
4. **Promoting Maternal Health:** Educating mothers on antenatal care, breastfeeding, and safe childbirth practices.

7.9 Nursing Care of Critically Ill Children

Critically ill children require specialized care due to their fragile health status. Key components of nursing care include:

1. **Assessment:** Continuous monitoring of vital signs, oxygen saturation, and fluid balance.
2. **Pain Management:** Administer pain relief as prescribed and monitor for signs of discomfort.
3. **Supportive Therapy:** Administer intravenous fluids, antibiotics, or other medications.
4. **Parental Support:** Offer emotional and psychological support to parents, ensuring they are involved in their child's care.
5. **Multidisciplinary Collaboration:** Collaborate with pediatricians, respiratory therapists, and other specialists to ensure comprehensive care.

Mental Health: Detailed Study Notes

8.1 Management of Clients with Mental Disorders

Management Approaches:

1. **Pharmacotherapy:** Medications such as antidepressants, antipsychotics, or anxiolytics are commonly used to manage symptoms of mental disorders.
2. **Psychotherapy:** Cognitive-behavioral therapy (CBT), psychotherapy, and group therapy help individuals cope with mental health issues.

3. **Crisis Intervention:** Immediate support and stabilization for patients in acute psychological distress.

8.2 Characteristics of Mentally Ill Patients

Patients with mental illness may exhibit:

- **Disorientation:** Difficulty in recognizing time, place, and people.
- **Impaired Judgment:** Difficulty in making decisions or understanding the consequences of actions.
- **Altered Mood:** Symptoms of depression, mania, or irritability.
- **Disorganized Thinking:** Difficulty in maintaining a logical or coherent conversation.

8.3 Classification of Mental Disorders

Mental disorders are classified based on their symptoms and severity. Common classifications include:

1. **Mood Disorders:** Such as depression and bipolar disorder.
2. **Anxiety Disorders:** Including generalized anxiety disorder, phobias, and panic disorder.
3. **Psychotic Disorders:** Such as schizophrenia.
4. **Eating Disorders:** Like anorexia nervosa and bulimia nervosa.
5. **Obsessive-Compulsive and Related Disorders:** Including obsessive-compulsive disorder (OCD) and hoarding disorder.

6.1 Disorder of Uterine Bleeding (DUB)

Dysfunctional Uterine Bleeding (DUB) refers to abnormal uterine bleeding that is not caused by a structural abnormality or underlying pathology, such as fibroids or cancer. It is primarily a disorder of the endometrium, often triggered by hormonal imbalances.

Etiology and Causes:

1. **Anovulatory Cycles:**
 - The most common cause of DUB, where ovulation does not occur, leading to excessive endometrial proliferation due to unopposed estrogen.
2. **Hormonal Imbalances:**
 - Dysfunction in the hypothalamic-pituitary-ovarian axis can lead to estrogen dominance or a deficiency of progesterone, causing abnormal bleeding.
3. **Polycystic Ovary Syndrome (PCOS):**

- PCOS leads to anovulation and unregulated secretion of estrogen, which can cause irregular and heavy periods.
- 4. **Perimenopause:**
 - Hormonal fluctuations during the transition to menopause can result in irregular periods and abnormal bleeding.
- 5. **Thyroid Disorders:**
 - Both hypothyroidism and hyperthyroidism can affect the menstrual cycle and cause abnormal bleeding.
- 6. **Endometrial Hyperplasia:**
 - Prolonged unopposed estrogen exposure can lead to the thickening of the endometrium, contributing to irregular bleeding.

Signs and Symptoms:

- **Heavy Menstrual Bleeding (Menorrhagia):** Heavy and prolonged periods, often requiring changing pads frequently.
- **Irregular Menstrual Cycles:** Irregular timing between periods or skipped periods.
- **Intermenstrual Bleeding:** Spotting between periods.
- **Anemia:** Due to excessive blood loss, leading to fatigue, dizziness, and paleness.

Nursing Interventions:

1. **Assessment:**
 - A detailed history of menstrual cycles, including duration, frequency, and amount of bleeding.
 - Assess for signs of anemia (paleness, fatigue, weakness).
2. **Monitor Vital Signs:**
 - Regularly monitor blood pressure and heart rate, especially in cases of heavy bleeding.
3. **Medications:**
 - Administer prescribed medications such as hormonal therapies (oral contraceptives, progestins, or IUDs) to regulate the menstrual cycle.
 - Nonsteroidal anti-inflammatory drugs (NSAIDs) for pain management and to reduce bleeding.
4. **Patient Education:**
 - Educate the patient on the importance of tracking menstrual cycles and seeking early intervention if abnormal bleeding occurs.
 - Inform the patient about surgical options (e.g., D&C, endometrial ablation) if medical management fails.
5. **Psychosocial Support:**
 - Provide counseling and emotional support, as abnormal bleeding can cause stress and social embarrassment.

6.2 Cystocele and Rectocele

Cystocele and **Rectocele** are pelvic organ prolapse conditions that occur due to weakened pelvic floor muscles and connective tissue.

Cystocele (Bladder Prolapse):

- Occurs when the bladder bulges into the front wall of the vagina. It is often a result of childbirth trauma, aging, or obesity.
- Symptoms may include urinary incontinence, frequent urination, or a feeling of incomplete bladder emptying.

Rectocele (Rectal Prolapse):

- Occurs when the rectum protrudes into the back wall of the vagina, often resulting from prolonged pressure from childbirth or chronic constipation.
- Symptoms may include difficulty passing stool, a sensation of rectal fullness, or vaginal bulging.

Causes:

1. **Childbirth:** Vaginal delivery, particularly with a large baby or prolonged labor, can weaken pelvic floor muscles.
2. **Age:** Aging causes a natural weakening of pelvic tissues and muscles.
3. **Obesity:** Extra weight puts more pressure on the pelvic organs.
4. **Chronic Constipation:** Straining during bowel movements can weaken the pelvic floor muscles.

Signs and Symptoms:

- **Cystocele:** Difficulty with urination, incomplete bladder emptying, or frequent urinary tract infections (UTIs).
- **Rectocele:** Difficulty passing stools, feeling of fullness in the rectum, or vaginal bulging.

Nursing Care:

1. **Assessment:**
 - Perform a pelvic examination to assess the degree of prolapse.
 - Take a detailed history of symptoms, including urinary and bowel function.
2. **Supportive Measures:**
 - Encourage pelvic floor exercises (Kegel exercises) to strengthen pelvic muscles and prevent further prolapse.
 - Recommend avoiding constipation and straining, which could exacerbate symptoms.
3. **Surgical Interventions:**
 - For severe cases, surgery may be required to repair the prolapse (anterior or posterior colporrhaphy).
4. **Patient Education:**
 - Educate on maintaining a healthy weight, avoiding heavy lifting, and practicing proper body mechanics.
 - Discuss the use of vaginal pessaries for mild to moderate prolapse, which provide support to the pelvic organs.

6.3 Uterine Prolapse

Uterine prolapse occurs when the uterus descends into or outside the vaginal canal due to the weakening of the pelvic floor muscles and ligaments that normally support the uterus.

Causes:

1. **Childbirth:** Prolonged or difficult labor can stretch or tear the muscles and ligaments that support the uterus.
2. **Aging:** The pelvic floor muscles weaken with age, particularly after menopause.
3. **Obesity:** Excess weight increases abdominal pressure on the pelvic organs.
4. **Chronic Coughing:** Conditions such as chronic obstructive pulmonary disease (COPD) can increase intra-abdominal pressure and lead to uterine prolapse.

Signs and Symptoms:

- Sensation of heaviness or a bulge in the vaginal area.
- Difficulty with urination, constipation, or feeling of vaginal fullness.
- Lower back pain.
- In severe cases, the cervix or uterus may protrude outside the vaginal opening.

Nursing Care:

1. **Assessment:**
 - Conduct a thorough pelvic examination to assess the degree of prolapse.
 - Evaluate urinary and bowel function for signs of incontinence or retention.
2. **Supportive Care:**
 - Recommend pelvic floor exercises to strengthen the pelvic muscles.
 - Encourage hydration and fiber-rich foods to prevent constipation.
3. **Surgical Management:**
 - Surgical intervention may be necessary in severe cases. Surgical options include uterine suspension or hysterectomy.
4. **Patient Education:**
 - Educate the patient on lifestyle modifications, such as weight management and avoiding heavy lifting.
 - Discuss the use of pessaries for mild prolapse, which provide support to the uterus and prevent further descent.

6.4 Vesico-Vaginal Fistula (VVF)

A **vesico-vaginal fistula (VVF)** is an abnormal connection between the vagina and bladder, resulting in urinary incontinence. It often results from prolonged labor and obstetric trauma.

Causes:

1. **Obstructed Labor:** Prolonged pressure from the fetal head against the bladder or vagina can cause tissue necrosis and result in a fistula.
2. **Traumatic Delivery:** Use of forceps or vacuum extraction, or extensive episiotomy during childbirth.
3. **Pelvic Surgery:** Hysterectomy or other pelvic surgeries can cause accidental injury to the bladder or vagina.
4. **Infection:** Chronic pelvic infections can lead to the formation of a fistula.

Signs and Symptoms:

- Continuous urinary incontinence, which may be constant or occur during certain activities (e.g., coughing, sneezing).
- Recurrent urinary tract infections.
- Foul-smelling vaginal discharge.
- Social and psychological impact due to stigma and embarrassment.

Nursing Care:

1. **Assessment:**
 - Obtain a detailed history, focusing on obstetric history or prior pelvic surgeries.
 - Perform a pelvic examination to assess for any abnormalities.
2. **Supportive Care:**
 - Provide emotional support to help manage the stigma and emotional impact of the condition.
 - Educate on maintaining hygiene to prevent infection and provide strategies for managing incontinence.
3. **Surgical Repair:**
 - The mainstay of treatment for VVF is surgical repair, which aims to close the fistula and restore normal function.
4. **Post-Operative Care:**
 - Monitor for signs of infection or wound dehiscence.
 - Provide instructions on catheter care and pelvic rest to allow proper healing.

6.5 STD/HIV/AIDS

Sexually Transmitted Diseases (STDs) are infections spread through sexual contact, including bacterial, viral, and parasitic infections. **HIV/AIDS** is caused by the human immunodeficiency virus, which attacks the immune system.

Common STDs:

- **Chlamydia, Gonorrhea, Syphilis, Herpes, and HPV** are some of the common STDs.

- **HIV/AIDS** can be contracted through unprotected sexual contact, sharing needles, or from mother to child during childbirth or breastfeeding.

Signs and Symptoms:

- **HIV/AIDS:** Early symptoms may include fever, sore throat, and swollen lymph nodes. As the disease progresses, individuals may develop opportunistic infections, such as tuberculosis or pneumonia.
- **STDs:** Symptoms vary by disease but may include genital sores, itching, abnormal discharge, pain during urination, and pelvic pain.

Nursing Care:

1. Assessment:

- Take a detailed sexual history to assess the patient's risk factors for STDs and HIV.
- Perform routine screening for HIV and other STDs.

2. Management:

- Administer antiretroviral therapy (ART) for HIV/AIDS.
- Treat bacterial STDs with appropriate antibiotics (e.g., doxycycline for chlamydia, penicillin for syphilis).
- Antiviral treatment for herpes and HPV.

3. Patient Education:

- Educate on safe sexual practices, such as using condoms and limiting sexual partners.
- Encourage regular screening for STDs and HIV, and adherence to prescribed treatment.

6.6 Infertility

Infertility is defined as the inability to conceive after one year of regular unprotected sexual intercourse.

Causes of Infertility:

- **Female Infertility:** Ovulatory dysfunction, blocked fallopian tubes, endometriosis, and uterine issues such as fibroids or polyps.
- **Male Infertility:** Low sperm count, poor sperm motility, abnormal sperm shape, or erectile dysfunction.
- **Unexplained Infertility:** In some cases, no specific cause is identified for infertility.

Nursing Care:

1. Assessment:

- Take a thorough history of the couple's reproductive health, including menstrual cycle and previous pregnancies.
- Recommend laboratory tests, such as semen analysis for the male partner and ovulation tests for the female.

2. Fertility Treatment:

- Discuss fertility treatment options, including medications to stimulate ovulation (e.g., clomiphene citrate), intrauterine insemination (IUI), and in vitro fertilization (IVF).

3. Patient Education:

- Provide information on the fertility process, potential treatment options, and lifestyle changes (e.g., maintaining a healthy weight and managing stress).
- Offer counseling to address the emotional challenges that infertility can cause.