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Practical Casebook Child Health Nursing

for GNM & Post Basic BSc Nursing Students

(According to the Newly Revised INC Syllabus)

2nd Edition

Name of the Candidate: _____

Name of the Institution: _____

_____

Sudhakar A

Foreword
Awadhesh Kumar Kaushik

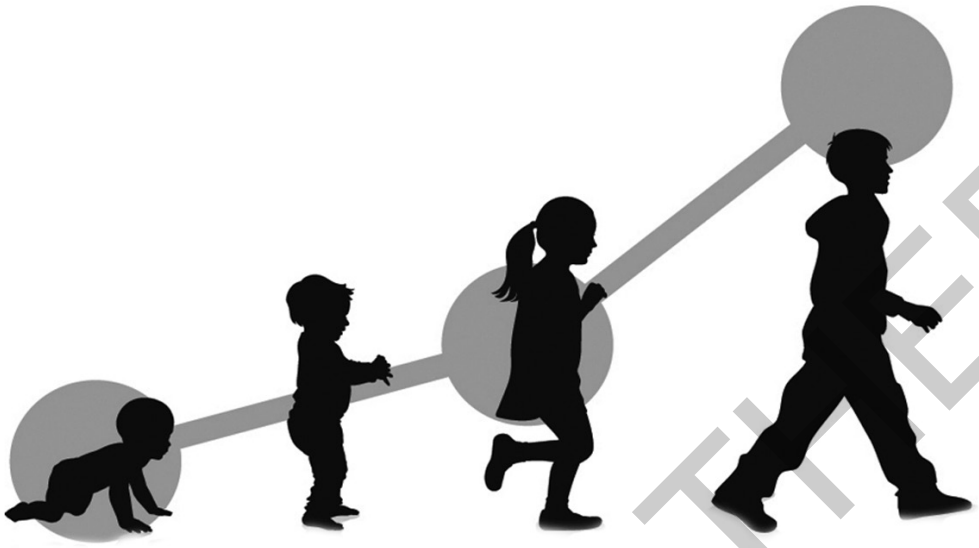
JAYPEE

Contents

S. No.	Requirements	Page No.
I	**Pediatric Case Assessment: Tools and Techniques**	**5**
1.	Anthropometric Measurement Tool	7
2.	Pediatric History Collection Tools	10
3.	APGAR Score	10
4.	Gestational Age Assessment (Ballard Score)	11
5.	Fluid Calculation	13
6.	General Formula Used to Assess the Child Health	14
7.	Dehydration Assessment Tool	16
8.	Administration of Oral, IM, and IV Medication	17
9.	Pain Assessment Scale	19
10.	Baby Bath/Sponge Bath	19
11.	Glasgow Coma Scoring Scale	23
12.	Feeding Children by Katori-Spoon, and Paladai Cup	23
13.	Feeding: Nasogastric, Gastrostomy and Jejunostomy	25
14.	Care of Surgical Wounds: Dressing and Suture Removal	35
15.	Nutritional Assessment	45
16.	Application of Restraints	52
17.	Administration of Oxygen Inhalation by Different Methods	55
18.	Procedure on Bowel Wash	59
19.	Procedure on Insertion of Suppositories	60
20.	Enema	62
21.	Urinary Catheterization and Drainage	64
22.	Care of Baby in Incubator/Radiant Warmer	67
23.	Care of a Child on Ventilator	71
24.	Continuous Positive Airway Pressure	76
25.	Administration of Fluids with Infusion Pumps	78
26.	Pediatric Cardiopulmonary Resuscitation (NALS/PLS/PALS)	80
27.	Arterial Blood Gas Analysis (ABG Analysis)	86
28.	Illustrated Pediatric Procedure Instruments	88
29.	Common Pediatric Healthcare Devices	91
30.	Bio-medical Waste Management	94
31.	Selection of Play Material	95

II.	Developmental Study (Growth and Developmental Assessment)	Number of Requirements	Ward/Field	Page No.
1.	Neonate/New Born Baby	1	NICU/Pediatric Ward	100
2.	Infants	1	PICU/Pediatric Ward	104
3.	Toddler	1	Pediatric Ward	109
4.	Preschooler	1	Pediatric Ward/OPD	112
5.	School Going Children	1	Pediatric Ward/OPD	115
6.	Adolescents	1	Pediatric Ward/ OPD	119
III.	**Nursing Care Plan**			
1.	Medical Care Plan	1	Pediatric Medical Ward/PICU	122
2.	Surgical Care Plan	1		143
IV.	**Nursing Case Study**			
1.	Medical Case Study	1	Pediatric Surgical Ward/NICU and PICU	169
2.	Surgical Case Study	1		196
3.	Case Presentation	1		230
4.	Health Talk	1		265
V.	**Observation Report**			
1.	Care of Baby in Critical Care Units (Preterm Baby)	1	NICU and PICU	275
VI.	**Drug Study**			
VII.	**Field Visit**			
1.	Anganwadi School	1	Community Center	293
2.	Mentally Challenged School	1	Adoption Center	300
3.	Blind/Duff and Dump School	1		307
4.	Juvenile Delinquency School	1		314
VIII.	**Clinical Evaluation of the Students**			
1.	Over All Clinical Performance of the Students	1	All the Pediatric Units	321
IX.	**Annexure 1: NANDA Nursing Diagnosis**			**322**
X.	**Annexure 2: Normal Laboratory Values**			**324**
XI.	**Annexure 3: Common Drugs Used in Pediatric Units**			**333**
XII.	**Annexure 4: Model Medical Care Plan**			**337**
XIII.	**Annexure 5: Pediatric Antidotes Drugs List**			**353**

DEVELOPMENTAL STUDY (GROWTH AND DEVELOPMENTAL ASSESSMENT)



ASSESSMENT OF GROWTH AND DEVELOPMENT

Definition

Definition of Growth

Growth refers to an increase in physical size of the whole or any of its parts and can be measured in inches or centimeters and in pounds or kilograms. **— Marlow**

Definition of Development

Development refers to a progressive increase in skill and capacity to function. It causes a qualitative change in the child's functioning. Maturation produces an increase in competence, an ability to function at a higher level depending on the child's heredity. **— Marlow**

Definition of Growth and Development

Growth is the progressive increase in the size of a child or parts of a child. Development is progressive acquisition of various skills (abilities) such as head support, speaking, learning, expressing the feelings and relating with other people. Growth and development go together but at different rates.

Stages of Development

S. No.	Stage	Time period
Prenatal period		
1.	Ovum	0–14 days (after conception)
2.	Embryo	14 days–8 weeks
3.	Fetus	8 weeks–birth (8–40 weeks)
Postnatal period		
1.	Newborn	Birth to 28 days
2.	Infant	1–12 month
3.	Toddler	1–3 years
4.	Preschooler	3–5 years
5.	School-aged child	6–12 years

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S. No.	Stage	Time period
6	Adolescent	13–18 years
	Early Adolescent	13–14 years
	Middle Adolescent	15–16 years
	Late Adolescent	17–18 years

Parameters of Growth and Development Assessment of Child

- Physical/biological development
- Motor development
  - Fine motor development
  - Gross motor development
- Sensory development
- Psychosocial development
- Psychosexual development
- Spiritual development
- Intellectual/cognitive development
- Moral development
- Language development
- Play stimulation

Piaget develops four important stages of cognitive development:

1. Sensorimotor stage (birth to age 2)
2. Preoperational stage (age 2 to 7)
3. Concrete-operational stage (age 7 to 12)
4. Formal-operational stage (age 11 to 12)

Erikson's eight stages consist of the following:

1. Trust vs mistrust (infant)
2. Autonomy vs shame (toddlerhood)
3. Initiative vs guilt (preschooler)
4. Industry vs inferiority (young adolescent)
5. Identity vs role confusion (adolescent)
6. Intimacy vs isolation (young adulthood)
7. Generativity vs stagnation (middle adulthood)
8. Ego integrity vs despair (old age)

Stages of Psychosocial, Psychosexual, Intellectual, and Moral Development

Stage	Age	Tasks	Erikson's psychosocial stages negative counterpart	Freud's psychosexual stages	Significant persons
Infancy	0–12 month	Sense of trust	Mistrust	Oral	Maternal person or substitute
Toddler	1–3 years	Sense of autonomy	Shame and doubt	Anal	Parental persons
Preschooler	3–6 years	Sense of initiative	Guilt	Phallic	Basic family
School going children	6–12 years	Sense of industry	Inferiority	Latency	Neighborhood, school
Early adolescence	Above–12	Sense of identity	Identity diffusion	Puberty	Peer groups and out groups, models of leadership
Late adolescence and young adult	16–18 years	Sense of intimacy and solidarity	Isolation	Geniality	Partners in friendship, sex, competition, cooperation

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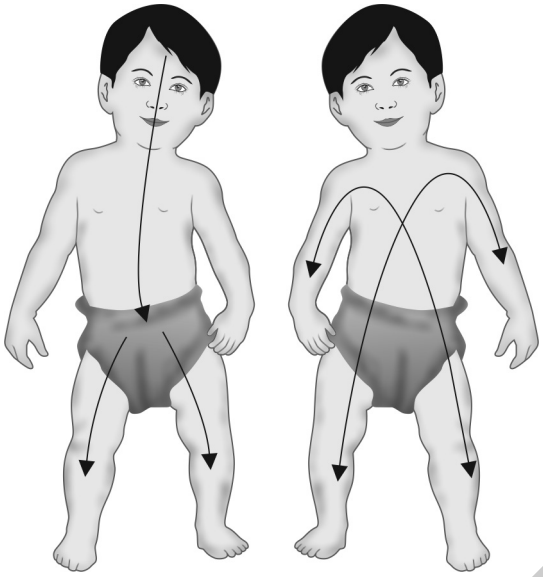
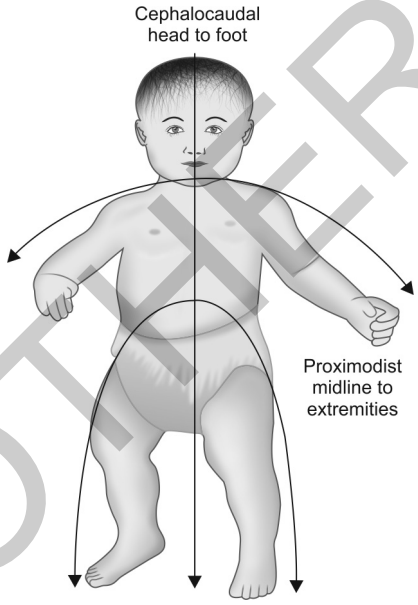
Principles of Growth and Development

Cephalocaudal direction	Proximodistal direction
The process of **cephalocaudal** direction from **head** down to **tail**. This means that improvement in structure and function come first in the head region, then in the trunk, and last in the leg region.	The process in proximodistal from center or midline to periphery direction. Development proceeds from near to far—outward from central axis of the body toward the extremities.
	

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EVALUATION CRITERIA FOR OVERALL GROWTH AND DEVELOPMENTAL ASSESSMENT

Name of hospital .....**Total Marks: 50**

Wards:.....**Duration of posting** ..... **weeks**

S. No.	Contents	Score	Marks obtained	Remarks
1.	**Child profile and assessment:**			
	• Identification data	2		
	• Biological assessment/reflexes	4		
	• Motor development	3		
	• Sensory development	2		
	• Psychosocial development	2		
	• Psychosexual development	2		
	• Spiritual development	2		
	• Intellectual development	2		
	• Moral development	2		
	• Language development	2		
	• Play stimulation	2		
	• Impression	2		
2.	**Role of student nurse:**			
	• Set the priority	2		
	• Communication	2		
	• Utilizing the available resources	3		
	• Personal appearance	2		
	• Punctuality	3		
	• Maintain proper dress code	2		
	• Acceptance of criticism	3		
	• Evaluation of the child development	3		
	• Date of submission	2		
Total		**50**		

Signature of Student **Incharge Teacher** **Signature of the HOD**

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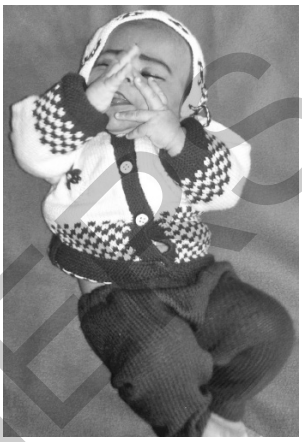
NEWBORN BABY/NEONATE (BIRTH TO 28 DAYS)

Identification Data



Name of the child : Baby/Master .....
Chronological age :
Developmental stage :
Sex/gender : Male/Female.....
Date of admission :
IP Number :
Ward :
Bed number :
Diagnosis :
Name of the surgery :
Date of the surgery :
Informant : Father/Mother/Others .....
Date of assessment : .....
Address : .....
: .....
: .....

Physical Assessment Proforma

S. No.	Assessment features	Normal value	Child value	Remarks (achieved/ not achieved)
1.	Anthropometric measurement	Weight: 2.5–3.5 kg Height: 45–50 cm Head circumference: 33–35 cm Chest circumference: 31–33 cm		
2.	Vital signs	Temperature: 36.5–37°C Heart rate: 120/140 beats/minute Respiration: 30–60 breaths/minute Blood pressure: 65/41 mm of Hg		
3.	***Physical Appearance*** Posture	• Flexion of head and extremities, which rest on chest and abdomen		
	Skin	• Bright red, puffy, smooth vernix caseosa, lanugo, edema around eyes, face, legs, hands, feet, scrotum or labia, Mangolian spots		
	Head 1. Anterior fontanel 2. Posterior fontanel	• Diamond shaped 2.5–4 cm • Triangular shaped 0.5–1 cm • Flat, soft and firm fontanels		
	Eyes	• Lids edematous • Color–gray brown • Absence of tears • Presence of red reflex, corneal and papillary reflex and blinking		
	Ears position	• Top of pinna on horizontal line with outer canthus of eye • Pinna flexible cartilage present		

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S. No.	Assessment features	Normal value	Child value	Remarks (achieved/ not achieved)
	Nose	• Nasal potency • Thin and white nasal discharge • Sneezing		
	Mouth and throat	Intact high pitched palate, frenulum of tongue, frenulum of upper lip, suckling reflex, rooting gag and extrusion reflex. Absent or minimal salivation. Vigorous cry		
	Neck	Short thick, surrounded by slais folds, tonic neck reflex		
	Chest	• Anterioposterior and lateral diameters are equal • Xiphoid process evident • Breast enlargement		
	Lungs	Respiration chiefly abdominal, cough reflex present Bilateral equal bronchial sound		
	(a) Heart	Apex-4th to 5th intercostals space, S_2 sharper, S_1 low pitch		
	Abdomen 1. Liver 2. Spleen 3. Kidney 4. Umbilical cord 5. Femoral pulses	 Cylindrical in shape Palpable 2–3 cm below right costal margin Tip palpable at end of first week of age Palpable 1–2 cm above umbilicus Bluish white with 2 arteries and one vein Bilaterally Equal		
	Genitalia Female genitalia Male genitalia	 • Labia and clitoris edematous • Urethral meats behind clitoris • Vernix caseosa between labia • Urination within 24 hours • Urethral opening at top of glance penis • Palpable Testis at each scrotum • Urination within 24 hours. • Pigmented edematous, pendulous scrotum		
	Rectum Extremities	Spine intact, no opening, masses trunk incurvation, patent and opening passage of meconium within 48 hours. • Ten fingers and toes • Full range of motion • Nail beds pink • Sole usually flat • Symmetry of extremities • Equal muscle tone bilaterally • Equal bilateral brachial pulses		
Impression				

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Neuromuscular System (Reflexes)

S. No.	Assessment features	Normal value	Child value	Remarks (achieved/ not achieved)
1.	**Blinking or corneal reflex**	Protection of the eye by rapid eye lid closure when the eyes are exposed to bright light		
2.	**Doll's eye reflex**	Turn the neonates head slowly to the right or left side, normally eye do not move		
3.	**Sneezing and coughing reflex**	Foreign substance entering the upper and lower airways, clearing of upper air passages by sneezing and lower air passages by coughing		
4.	**Rooting reflex**	When the cheek or corner of the mouth is stroked, the infants head should turn towards the stimulus and the mouth should be open		
5.	**Sucking reflex**	When touching or stroking the lips with the breast, the mouth opens and sucking movement begin.		
6	**Swallowing reflex**	The passage of food from posterior aspect of the mouth to the stomach		
7.	**Gagging reflex**	When the posterior pharynx is stimulated with food there is an immediate return of undigested food.		
8.	**Extrusion reflex**	When substance placed on anterior position of tongue will be expelled out		
9.	**Palmer reflex**	When the objects are placed in the newborn's palm, the newborn grasps		
10.	**Plantar reflex**	When object touches the sole of the foot at the base of the toes, toes grasp around very small object		
11.	**Dancing or stepping reflex**	Hold neonate in a vertical position with the feet touching a flat, firm surface, there will be rapid alternating flexion and extension of legs.		
12.	**Babinski reflex**	Stroking the lateral aspect of the sole of the foot with a relatively sharp object from the heel up toward the little toe and across the foot toward the big toe, there will be fanning of the toes.		
13.	**Tonic neck reflex**	Turning the head quickly to one side while the infant is supine, arm and leg on the side the head is turned toward extend. Arm and leg on the opposite side flex.		
14.	**Moro reflex**	Sudden jarring or change in equilibrium causes sudden extension and abduction of extremities and fanning of fingers with index finger and thumb forming a 'c' shape followed by flexion and adduction of extremities, legs may weakly flex, infant may cry, disappears after age 3–4 months, usually strongest during first 2 months.		
15.	**Startle reflex**	A sudden loud noise causes abduction of the arms with flexion of elbows, hands remain clenched, disappears by age 4 months.		

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16.	**Perez reflex**	While infant is prone on a firm surface, thumb is pressed along spine from sacrum to neck, infant responds by crying, flexing extremities and elevating pelvis and head lordosis of the spine, as well as defection and urination may occur, disappear by age 4–6 months.		
17.	**Trunk incurvation (gallant) reflex**	Stroking infants back alongside spine causes hips to move toward stimulated side, disappears. By age 4 weeks.		
18.	**Crawl reflex**	When placed on abdomen infant makes crawling movements with arms and legs.		
Impression				

Signature of Student **Incharge Teacher** **Subject Coordinator/HOD**

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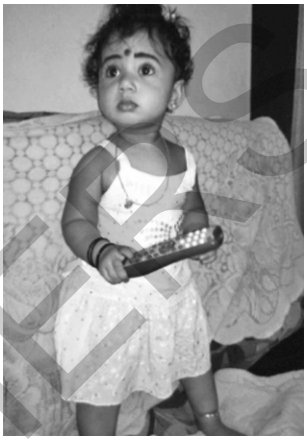
INFANTS (1 MONTH TO 12 MONTHS)

Identification Data



Name of the Child : Baby/Master.....
Chronological Age :
Developmental Stage :
Sex/Gender : Male/Female.....
Date of Admission :
IP Number :
Ward :
Bed Number :
Diagnosis :
Name of the Surgery :
Date of the Surgery :
Informant : Father/Mother/Others.....
Date of Assessment : .....
Address : .....
: .....
: .....

Infants (1 Month to 12 Months)

S. No.	Assessment features	Normal value	Child value	Remarks (achieved/not achieved)
1.	**Physical/ biological development**	***1–6 months*** **Weight:** • Weight 4.4 ± 0.8 kg: gains above 680 g, a month during first 6 months, or 150 to 210 g a week **Height:** • 53±2.5 cm (21 ± 1 in); increases about 2.5 cm (1 in) a month during first 6 months **Dentition:** • Full set of 20 temporary teeth. **Chest circumference:** • At birth: 35 cm • 3 month: 40 cm • 6 month: 43 cm • 1 year: 45 cm **Head circumference:** • Head circumference Increases about 1.5 cm (0.5 in) a month during first 6 months. – Pulse: 130±20 Beats/Minutes – Respirations: 35±10 Breath/Minutes – Blood pressure: 80/50±20/10 mm/Hg		
		Posterior fontanel closed: at 6 to 8 weeks of age ***Expected weight Calculation Formula*** $\frac{\textit{Age in month + 9}}{\textit{2}}$		

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S. No.	Assessment features	Normal value	Child value	Remarks (achieved/not achieved)
2.	**Motor development**	**2–3 months** • Symmetric posture of head and body. • Head in mid position or side. • Lifts head almost 45 degrees angle. **4–5 months** • Symmetric body postures predominate • Sits with adequate support. • Lifts head and shoulders at a 90° angle **6–8 months** • Sits alone briefly if placed in a favorable leaning position on hard surface. • Holds an arm out back is straight when sitting in high. Chair Pulls to a sitting position. • Bounces actively when held in standing position • Sits alone steadily. • Pulls self into standing position with help **9–12 months** • Raises to a sitting position alone with good coordination. • Pull self to standing position alone while holding on to furniture. • Moves from prone to sitting position. • Makes stepping movements forward when two hands are held. • Stands erect with minimal support and lifts one foot to take a step. • Cruises: walks holding on to furniture. • Stands alone for variable length of time sits down from standing position alone walks in few steps. ***Fine motor*** **1 month** • Holds hands in tight fists. • Can grasp an object placed in the hand (palmer grasp reflex) but drops it immediately. **2–3 months** • Hands may be open • Holds a rattle briefly when placed in the hand. • Hands open or closed loosely. **4–5 months** • Holds hand predominantly open brings hands together in midline sits with adequate support. • Plays with fingers grasps object held near hand. • Attempts to reach objects with hands but overshoots them. • Objects are carried to mouth thumb apposition in grasping occurs between third and fourth months fingers and clutches clothing • Uses thumb in partial opposition to fingers more skillfully • Grasps objects with whole hand, either right or left, holds one object while looking at another **6–8 months** • Grasps with simultaneous flexion of fingers: begins to, use fingers to feed self • Begins to transfer object from one hand to other hand. • Holds own bottle but may prefer for it to be held. • Holds 23 toys at once approaches a toy and grasps it with one hand (ambidextrous) 7 months. • Holds 2 objects while looking at a third persistently reaches for objects beyond range of grasp releases objects from hands voluntarily. • Complete thumb apposition pincer grasp beginning to develop.		

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S. No.	Assessment features	Normal value	Child value	Remarks (achieved/not achieved)
		9–12 months • Bangs two objects together pokes objectives with fingers uses thumb and index finger in early pincer grasp. • Puts nipple in and withdraws it from mouth at will drinks from cup with some spilling (9-12 months), attempts to use a spoon but spills contents • Picks small objects up with index finger and thumb (pincer grasp) releases an object after holding it brings the hands together. • Good pincer grasp picks up small bits of food and transfers them to mouth. Enjoys eating with fingers Attempts to put a small pellet into a narrow-necked bottle but does not succeed. Releases one or more objects inside another object or container		
3.	**Sensory development**	**1–8 months** • Visual acuity, 20/200 **9–12 months** • Visual acuity: 20/100 to 20/50 • Marked interest in very small • Objects Searches for a lost toy with greater persistence.		
4.	**Psychosocial development**	***Trust vs. mistrust*** **1–2 months** • A development of sense of trust. Negative counterpart: mistrust • Totally egocentric • Bonding progresses • A face orientation, smiling, and vocalization are the evidences of attachment between infant and parents. • This is the beginning of social behavior **3–4 months** • Sense of trust • Recognizes and smiles in response to caregiver's (usually the mother's) face. • Stops crying when familiar person seen. • This is the beginning of social behavior. • Shows interest in new stimuli. **5–6 months** • Smiles at self in mirror • Shows displeasure when toy is lost. • Recognizes parents and strangers. • Knows what is liked and disliked **7–8 months** • Sense of trust shows increasing fear of strangers • Responds socially to own name emotional instability • Refuses to play with strangers or even accept toys from them. • Emotional instability still evident dislikes changing clothing and diapers **9–10 months** • Sense of Trust Expresses several beginning recognizable emotions such as anger, sadness, jealousy, anxiety, pleasure, excitement, and affection • Beginning fears about being left alone, as-when put into the crib Dislikes having face washed so covers face with arms and hands. • Shows preference for one toy over another. **11–12 months** • Sense of Trust shows pleasure when a desired act is accomplished. • Becomes frustrated when activities are restricted. • Seeks approval, avoids disapproval		

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S. No.	Assessment features	Normal value	Child value	Remarks (achieved/not achieved)
		• Sense of Trust theoretically achieved. • A sense of mistrust predominates infant's emotion, such as fear, jealousy, anger, can be more clearly interpreted. • Responds to requests for affection such as a kiss or a hug. • Puts arms through sleeves, feet into shoes.		
5.	**Psychosexual development**	**Oral Stage (0 to 1 year)** • Oral aggressiveness is evidenced by biting and chewing. • Discover genitalia (7 months)		
6.	**Spiritual development**	**Undifferentiated (0 to 1 year)**		
7.	**Intellectual/ cognitive development**	***Sensory motor stage (0 to 2 years)*** ***Substage: I* (birth to 1 month)** • Infant uses reflexes to begin to make associations between an act and a sequential response: cannot distinguish self from environment. ***Substage II:*** Primary Circular Reaction (1 to 4 months) • Begins to repeat actions of own body voluntarily (hand to mouth movement permits sucking). ***Substage III:*** Secondary Circular Reaction (4 to 8 months) • Repeats actions that affect an object to get a response (shaking a rattle). • Experiments with old or new responses to produce environmental changes or to reach a goal. ***Substage IV:*** • Coordination of Secondary Schemas **(8 to 12 months)** • Abilities learned earlier are combined and extended to deal with new situations. • Perceptions of space become refined between 8 to 12 months. • Problem solving beginning to develop.		
8.	**Moral development**	***Pre-conventional morality*** **Stage-0 (0–2 years)** The good is what I like and want.		
9.	**Language development**	***Receptive language:*** **1–6 months** • Responds to human voices • Alert expression when listening • Direct definite regard soothed by caregiver's, mother, voice • Looks in direction of speaker • Recognizes similar words. **7–12 months** • Recognizes own name responds with gestures to words such as 'come' • Stops activity when own name is spoken verbally • Responds to adult anger • Understand simple commands. ***Expressive language:*** **1–6 months** • Opens and closes mouth as adult speaks • Cry patterns developing, cries when hungry or uncomfortable • Begins to coo		

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Practical Casebook

Child Health Nursing

for GNM & Post Basic BSc Nursing Students

Salient Features

- Comprehensive and simple titles for students' level
- Covers practical aspect of GNM and Post Basic BSc Nursing Syllabus (According to newly revised INC syllabus)
- Consists of child assessment tools and techniques, which will help the students to make their Case without mistake
- Will save the students Time, Energy and Money
- User-friendly for the pediatric Nursing students
- All the requirements are planned and written in easy and simple language at student's level
- Consists of current and updated information
- Will fulfill the student's professional expectation
- Has well illustrated images, tables and figures to make the students understand better
- Contents are systematically arranged for learning purpose
- Enriches both the theory and practical knowledge of the students
- Attached the evaluation sheet, which will help the teachers to evaluate accurately student's practical knowledge and skills
- Annexures will help the students to understand the Nursing Diagnosis and Laboratory Findings.

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